Notes from the R3SG (Rome Student Systems and Standards Group)  
Meeting, Dublin, Ireland, 25 April 2008

Summary

- Since the first meeting in November 2007: At a meeting to discuss submission of the course description specification to CEN (Comité Européen de Normalisation, European Committee for Standardization), the group agreed to use the CDM specification.
- Harmonization of the CDM specification from Norway, EMIL from Sweden, and CDM-FR as implemented in France would be achieved by using transformation among the specifications. The group assumed future convergence to the evolving CDM implementations.
- In addition to course descriptions, there is a need for an electronic transcript and diploma supplement specifications.
- The group is aware of the U.S. specifications from the Postsecondary Electronic Standards Council (PESC). These include an approved transcript specification and the development of a course inventory specification.
- The discussion of use cases now informally includes “course equivalencies” though that is not an immediate requirement. (This discussion began at the Rome Workshop with David Moldoff’s description of processes used for transfer credit in the U.S., especially between community colleges and universities).
- Without discussion at this time, the group expects to use the OSCI-2 real-time XML SOAP-based business network.

Background on the R3SG

A group of software and servicer providers and college and universities have been meeting informally in Europe to agree on the exchange of student and course information to support the Bologna process. The first workshop in November 2007 was in Rome, the second in April 2008 was in Dublin, and the third is planned for October 2008 in Stuttgart. PESC Director Dave Moldoff of Academy One and Randy Timmons of Sigma Systems Inc. have been participating in R3SG attending both meetings.

Beginning in 1999 and responding to student union requests for transferability of credit—called mobility in Europe, the policies and procedures and curriculum changes are being followed by administrative systems development. Several university-developed systems have been reported in the annual EUNIS (European University Information Systems) conferences.¹

¹ This is similar to early implementations in the U.S. The data exchanges were primarily between a “feeder” community college—for example Orange Coast College—and a nearby university—the University of California,
One active stream of activity is the standardization of data based on the CDM (Course Description Metadata) specification developed in Norway, extended and implemented in Sweden as EMIL, and broadly implemented in France as CDM-FR by the ESUP Portail Consortium. Their goal is to have an European Union standard via CEN (European Committee for Standardization). Another stream of activity is the specification for the exchange of data itself based on the emerging OSCI-2 (Online Services Computer Interface) specification. OSCI is based on Web Services—XML, SOAP and the WS-* series of specifications. If CDM becomes a European Standard, then national standardization activities are expected to cease. Also the approved specification can become a requirement for procurement.

The Dublin Workshop

The Dublin Workshop was held Friday, April 25, 2008 at the Dublin Institute of Technology. The meeting was hosted by Digitary. Thirty-seven participants from 11 countries registered and more attended. Digitary is a trading name of Framework Computer Consultants Limited, registered in the Republic of Ireland. The company was founded in 1999.

Between the Workshops

Simone Ravaioli, Kion Spa and Stéphane Valey, unisolution GmbH, described the Paris meeting and submission of the CDM specification to CEN. The group decided to base the submission on CDM because it was more extensive and had already been proposed by Norway. There are current implementations in Sweden and France and another specification—XCRI—developed in the U.K. by the Joint Information Systems Committee. XCRI (eXchange of Course Related Information) was used primarily to make course information available on Websites, especially UCAS, a Web-based consolidated course inventory. With reduced scope, XCRI, itself was adapted from the CDM specification. The U.K. representative, Mark Stubbs from Manchester Metropolitan University, is aware of the ongoing development of the course inventory specification in the U.S.; his recommendations reflect this awareness.

Irvine, especially in California where there is a strong community college transfer (mobility) program. When this exchange is automated it becomes difficult to implement a standard since a substantial volume of transactions, and need, has been satisfied. In this example, more than 80% of university transfers were to the single campus of the University of California.

2 Under Alain Mayeur’s leadership (Université de Valenciennes) the ESUP Consortium first implemented uPortal—a software development led by the University of Delaware with support from the Andrew W. Mellon Foundation—and the CAS security system from Yale University. Then the Consortium developed a help desk application and integrated the portal with the Moodle learning system. The Consortium lists 50 implementing institutions on their Web site. More than 200 attended the consortium’s last conference.

3 “The company worked over a number of years with the Higher Education Sector on the development of the Digitary system for the secure online issuing and authentication of tamper-evident official graduation documents, which was first implemented in 2005. In February 2007, the company changed its name to Digitary, which stands for "Digital Notary" to emphasise the company’s specialisation in secure document production and authentication.”

Jim Farmer

9 May 2008
Because of the implementations, the group suggested that transformations—specifically XSLT transformations—could be used. This implies any business network should include a transformation service and likely the implementation for two-step routing.4

Student Systems Implementers’ Perspective

Andy Dowling, Digitary and Stephane Velay, unisolution, led an open discussion of specifications, prioritization, and timings. Their audience included software and service suppliers who could implement the specification. The discussion focused on how to implement the specification, not whether to implement the specification. It appeared there was consensus to move forward based on the prior work.

At the Rome Workshop Dave Moldoff had commented that standards are broadly implemented specifications. Implementations, not documents, defines a standard. The Workshop was also an example of Europeanization. As Nokia’s Yrjo Espoo described the standardization process: “The thing is, something was in the air. This idea of Europeanization, of building a common Europe, was moving forward in many areas: joint research projects, joint business ventures, the European court, the economic union, that sort of thing. …Let’s make one telephone standard for all of Europe and we did.”5

Lucas Heymans, Oracle Corporation, again raised the issue of harmonization with other standards. He suggested careful attention be given to the HR-XML specifications since they are supported by ERP software suppliers, include education data, and are part of the automated dataflows from students and institutions to employers. Stéphane Velay commented he hoped to meet with the HiR-XML Consortium during his next travel to the U.S.

CEN Standard Developers Perspective

---

4 This technique was used in the early 2000s by the U.S. Department of Education’s Modernization Program so users could forward files (or messages) in either the legacy or the new XML specification format. Over time this transformation became unnecessary. The transformation was done by the IBM MQ bus and applications, if needed, between receiving the file and forwarding it to the appropriate application. There were no reported problems with this design serving more than 14 million students.

5 From T. R. Reid’s “United States of Europe,” New York, Penguin Press, 2004, p. 126. Reid, a writer for the Washington Post, commenting on the standards efforts in Europe. The Workshop, led by young entrepreneurs—Reid’s “Generation E,”—are Reid’s “new Europeans.” “When Generation E gets together these days, people tend to leave all those traditions [of native language] behind and converse in the one language that every young European shares, which is English.” Both workshops were in English though in Rome native English speakers were a minor fraction of those participating.

Jim Farmer 9 May 2008
Erlend Overby, MLO [Metadata for learning Opportunities] project manager, described the process of CEN standardization. He provided some timelines—generally measured in months. Since many of the suppliers attending are either increasing the implementations of their software products and services or plan to do so soon, these implementations will use the specification draft. Overby described both the risks—changes to the specifications—and benefits—an improved specification—of these early implementations.

Open Discussion

Digitary’s Jonathan Dempsey led the open discussion in the afternoon. The discussion suggested some additional use cases that should be considered and asked for additional detail. However, it was clear the discussion was focused on how to complete the draft specification and how to implement the specification.

Hermann Strack commented that the OSCI specification work would be increasing, with German approval expected. Sven Gutow, HIS Hochschul-Informations-System GmbH, made an interesting observation. He said the architecture and functional requirements for the current generation of installed software was close to obsolescence. He said the combination of new architecture (which appeared to be service-oriented) and new administrative processes to support the Bologna process would be an opportunity for system redesign and redevelopment of administrative systems.

Unisolution’s experience with their MoveOn software and service—which includes use by U.S. colleges and university—suggests a trend toward hosted services rather than local campus data processing.  

Washington DC Presentation

Two of the organizers, Manuel Dietz and Stephane Valey of unisolution GmbH in Stuttgart, Germany will be attending the NAFSA (National Association of Foreign Student Advisors) Convention May 27-30 in Washington, DC. Dave Moldoff suggested they brief interested U.S. associations as part of their visit. This is tentatively scheduled for May 28th. HR-XML Consortium Executive Director Chuck Allen will be joining the discussions. The briefing will be held at the offices of the Postsecondary Electronic Standards Council.

---

6 The rapid trend to use services was reported by a panel of firms at the following week’s 5th Annual Conference on Technology and Standards in Washington, DC.