
Author Clifford Adelman wrote:

What has transpired since 1999 cannot be but lightly acknowledged in the United States. While still a work in progress, parts of the Bologna Process have already been imitated in Latin America, North Africa, and Australia. The core features of the Bologna Process have sufficient momentum to become the dominant global higher education model [emphasis added] within the next two decades. We had better listen up.

Hosted by the Postsecondary Electronic Standards Council, the unisolution GmbH executives described the work of the Rome Student Systems and Standards Group (RS3G). Ten U.S. software and service suppliers, a university representative, and PESC and HR-XML officials participated.

Dietz and Velay were attending the NAFSA Conference—the National Association of Foreign Student Advisors, or as NAFSA labels it, “Association of International Educators”—at the Washington Convention Center. More than 9,000 from 100 countries attended.

RS3G is cooperatively developing specifications for a data-exchange network. The business transactions include the Learning Agreements (LA) assuring credit for work done in another university, Transcript of Records (ToR) and Exchange Studies Supplement (ESS) issued by the home university, and, at the end of studies, Transcript of Records (ToR) and Diploma Supplement (DS) issued by home institution. These electronic documents would be signed electronically and legally binding.

The First Workshop of the Rome Student Systems and Standards Group was held in Rome—hence the name—on 9 November 2007.
The Bologna process was described:

“In order to establish a European Higher Education Area by 2010 the involved 46 European states (Jan. 2007) agreed within the Bologna Process on common aims concerning the restructuring of study programs and academic degrees at universities. Different measurements are about to be implemented to reach more comparability and compatibility for these study programs and academic degrees:

- Bachelor Degree and Master Degree study programs
- Modularization of study programs
- Increased international acceptance of exam certificates and study programs workloads – by use of
- Diploma Supplements and European Credit Transfer System (ECTS)
- Increased support for the mobility of students and lecturers between universities.
- Student and Exam data exchange within the Bologna Process nowadays – TOR

“Nowadays, study and exam results, achieved by students during their ‘studies abroad’ at guest/host universities, are given to the student in paper based form as a so called ‘transcript of records’ (TOR) according to the Bologna Requirements, including the ECTS credit points and grades. Therefore a lack of security, standardization and efficiency concerning the TOR exchange is obvious.”

Velay said the Workshop established a “permanent observatory on standards” to ensure their work was consistent with existing and likely standards. The Group sent a delegation of experts to CEN (European Committee for Standardization) to ensure their experience was available as standards were considered for tertiary [higher] education.

At the Workshop Hermann Strack, Hochschule Harz, Wernigerode, Germany, described the OSCI (Open Service Computer Interface) messaging specification and recommended the forthcoming version 2.0 for all data exchanges among universities and between the universities, government agencies, and employers. In Washington, Velay confirmed the Group’s intent to influence and use this specification. The XML and SOAP-based specification is almost identical to the Meteor project in the U.S that assembles and exchanges student loan information. Meteor has been operating since 2002 now processing 200-300,000 transactions per year.

The RS3G participations include “national” software suppliers such as Kion (Italy), HIS (Germany), OCU (Spain), and LADOK (Sweden). Three national standards consortia were represented: JISC-XCRI from the UK and CDM—course description metadata—from Norway, Sweden, and France with PESC representative Dave Moldoff, CEO of Academy One.

At the Rome conference, Lígia Maria Ribeiro, Universidade do Porto, speaking for EUNIS, the European UNiversity Information Systems Association, encouraged the
collaborative efforts and suggested presentations and pre-conference sessions in the **EUNIS 2008** being held in June. Velay confirmed there several RS3G have scheduled several presentations and pre-conference workshops.

The Rome workshop was organized by Simone Ravaioni of Kion and Dietz and Velay. Kion provides student management systems to 70% of the universities in Italy; unisolution’s moveonnet serves 300 institutions in 15 countries—including the U.S.— with more than 1,100 institutions as registered users of the moveonnet portal.

The [Second Workshop](#) was held in Dublin, Ireland on 25 April 2008 hosted by Digitary—a security firm focusing on the exchange of validated transcripts. 37 representatives from 11 countries attended, likely encouraged by the warm hospitality and nearby Guinness brewery.

“The perspective of the industry, presented by RS3G representatives, shared a set of previously-collected business cases eligible for standardization – while the perspective of the standardization community, presented by Erlend Øverby (CEN’s expert and facilitator of the MLO [Metadata for Learning Opportunities] project), filled in the audience on the work of the standardization authorities and the “life-cycle” of standards.” These included student mobility—typically referring to study at a second university within the program of the home university, [credit] transfer mobility, graduation documents, and employment.”

Examples of these cases were shown and discussed in Velay’s Washington presentation.

One of the recommendations from the Rome Workshop was to use current standards. Because many European employers have HR-XML compliant human resource systems, students and alumni benefit if their education records are presented in HR-XML electronic format. For example, the HR-XML résumé or CV has been supported for about five years. Monster Worldwide Inc. has supported this format since 2003 and Microsoft has provided a Word add-on for those preparing resumes.
At the Dublin workshop Sven Gutow, Hochschul Information System GmbH, commented the Bologna process itself will encourage changed business practices. New information technology provides additional capabilities. The combination, he said, suggests a new generation of administrative systems will replace current systems.

Chuck Allen, Director, **HR-XML Consortium**, participated in the Washington briefing. He identified the areas where academic information was used in employment processes and listed a number of activities in Europe where this information is passed to employers electronically in HR-XML compliant formats. Extending comments by Mark Stubbs, Manchester Metropolitan University at the Workshops, Allen said implementing HR-XML documents in a student’s ePortfolio would ensure accurate and complete information for potential employers and current competencies and diploma supplements for current employees engaging in additional education.

Based on recent briefings, Sigma Systems Inc. CEO Randy Timmons commented the Kuali open source student systems software products will be using Service Oriented Architecture. Although current implementation uses Java interfaces, Web services will be supported when needed. Timmons said it may be possible to coordinate Kuali and RS3G specifications to minimize network maintenance costs.

After Dietz and Velay returned to the NAFSA Conference, the discussion turned to the U.S. perspective.

Jeff Alderson, **ConnectEdu**, said the company would like to achieve electronic exchange among servicers and hoped to connect to colleges and universities later using standards. [PESC has an EA2 Electronic Authentication and Authorization Task Force focused on achieving this capability]. Currently servicers are providing many different formats for the exchange of colleges and university data with servicers. Jeff said it would not be possible to get colleges and universities to change data exchange methods before the next academic year.

Oracle’s Joe Burkhart observed Oracle depends upon user expression of needs to prioritize development. So far there has not been interest in real-time data exchanges as proposed by RS3G, but that could change as the Bologna processes become better defined. SunGard’s Bill Hollowsky and Datatel’s Pete Nalli agreed.
RS3G will hold working sessions at the June EUNIS (European University Information Systems) Conference. David Moldoff will represent the PESC Board at the October Workshop in Stuttgart, Germany.

According to Dietz, more than 200,000 European Community students attend another university during their studies. Institute of International Education reports a similar number—223,534—of U.S. students studied abroad in 2005/06. This suggests an immediate need for participation in Bologna process. This may drive adoption of the services offered by the RS3G suppliers. Their customers may include U.S. colleges and universities with foreign students or students attending universities in the 46-country European Higher Education Area.