

Standardization activities and research projects

Two different perspectives towards
standardization benefits:

- driving adoption
- adoption and standardization

Josep Blat,

Universitat Pompeu Fabra, Barcelona

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ICT Standardization and Research - Towards FP7



Outline

- **Introduction: a wide variety of projects**
- **UNFOLD: the experience of a project supporting an emerging standard**
- **Several projects: benefiting from standards, promoting standards**

A wide variety of projects,
mainly

- e-learning
- media

UNFOLD <http://www.unfold-project.net/>

unfold search

home | unfold showcase | continuing activities | news | ims id resources | mailing list | project documentation

you are not logged in | log in | join

you are here: home

Welcome to UNFOLD

The tabs above give you access to:

- UNFOLD mailing list administration
- Information about IMS Learning Design
- project information

The panels to the left and right provide:

- continuously updated links to news from sites and projects related to Learning Design.

The UNFOLD project ran during 2004 and 2005, supporting the adoption of open eLearning standards for multiple learners and flexible pedagogies, and coordinating the work of those involved in implementation and adoption.

This site has three purposes

- Providing documentation of the work done by the UNFOLD project, through the tabs above this text.
- Providing updated information about IMS Learning Design and related issues, through the RSS feeds in the panels at the sides of this page, and the "Learning design resources" in the tab above this text
- Providing a contact point for the UNFOLD mailing list, which will continue to provide information about developments in the world of Learning Design.

Continuing the work of UNFOLD

The UNFOLD forums and activities site at [Learning Networks for Learning Design](#) will be maintained, and all are welcome to visit and participate.

We have applied for funding to continue the work of the UNFOLD events in the coming years, and we will post information on the results as soon as we know the outcome.

UNFOLD Stimulating e-learning standards adoption

SIGOSSEE <http://www.ossite.org/>

JOIN search

home | community activities | open-source news | forums | events | resources

you are not logged in | log in | join

SIGOSSEE / JOIN - Open Source for Education in Europe

This is the Open Source Software in Education website, developed by the EC sponsored SIGOSSEE and JOIN projects. The projects aim to provide information, advice, guidance and research on the use of open source software in education for the education community, for policy makers and planners and for educational software developers.

Conference just completed:

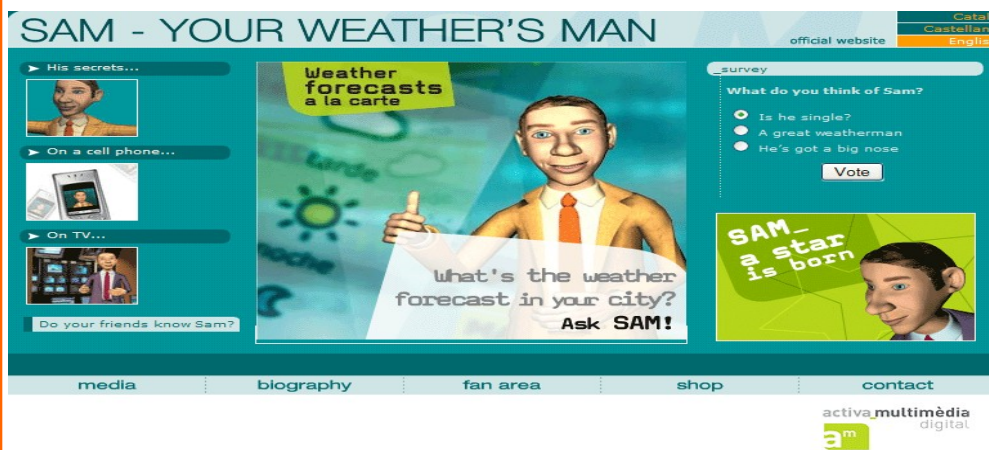
Our conference, "Open Source for Education in Europe" was held in Heerlen, NL on November 14-15 2005, co-sponsored by SIGOSSEE, JOIN and the Open University of the Netherlands. Many thanks to all who made the conference such a success. Stephen Downes has posted a brief round-up, including his audio and slides and links to other blogging from the conference. Some photos have started to appear in the SIGOSSEE / JOIN group photo pool on Flickr - Stuart Yeats has posted his photos for the group pool; if you have a Flickr account please tag your conference photos "heerlen2005" and/or request to join the group pool.

The full programme for the conference is available for download as a pdf file.

What are SIGOSSEE and JOIN?

SIGOSSEE Diffusion of Open Source Software in Education

Personatges Virtuals <http://www.meteosam.com/>



VIRTUAL CHARACTERS Automatic TV production (weather forecasts)

IP-RACINE <http://www.ipracine.org/>

OVERVIEW
Integrated Project Research Area Cinema

Film or cinema is the driving force for the entertainment industry, giving the most compelling experience, and feeding the creation of other media. The movie chain is now going digital, from origination through distribution to display. IP-RACINE will extend the state of the art and enhance European competitiveness by creating technologies to deliver enhanced 'cinematic' entertainment that is transferable cross-platform. The project will:

- Research and develop workflow techniques for integrating the digital process from 'scene to screen';
- Improve techniques for the intelligent use of very large cinematic data sets, automated versioning, annotation, indexing and retrieval;
- Research and develop tools for the real-time integration of 'real world' material with synthesised sounds and images in 2-D or 3-D form;
- Research and develop methods for processing content at a much higher semantic level than the pixel;
- Research and develop a playout experience with better adaptability to technical, linguistic and cultural constraints;
- Promote the understanding and acceptance of European Digital Cinema within the international professional community (including the relevant standardisation bodies) and public;
- Reinforce the European skills base for digital cinema technologies, by developing training for professionals and researchers.

IP-RACINE New workflow for digital cinema

Some terminology clarifications

- **Interoperability:** being able to work across computers, applications, ...
- **Specifications:** technical definitions (allowing interoperability)
- **Standards:** specifications accepted by appropriate international bodies
- **Remarks:**
 - Free/open source software does not imply interoperability; it is an added quality on top of Free/Open
 - Proprietary strategies can have benefits

Specifications / standards deployment

- **Official vs *de facto* standards:**
 - **pdf** is an example of a de facto standard: a proprietary format which everybody uses
 - **MHEG** is a standard which you probably haven't heard of ...
- **Official bodies:** ISO, CEN/ISS, ...
- **Nonofficial bodies:** professional associations, groupings, ...
- **Deployment:** standards/specs aim at being widely accepted, but some of them never reach that stage

UNFOLD: Promoting an (e-learning) specification

The background ...

- **IMS**: a professional body promoting e-learning interoperability specifications with most main key players
- **A myriad of emerging IMS specifications**: but not quite able to describe core teaching activities (for instance, SCORM, a profile, more precisely)
- **SCORM heavily supported**: by the US DoD – in the range of \$80 m
- ***EML***: *able to describe in computer terms a wide range of teaching activities (OUNL)*

... the background

- **EML towards IMS-Learning Design:** CETIS (and OUNL) work towards getting EML accepted by IMS as IMS-LD; compromises and breaking down into three levels, A, B, C for ease of implementation.
- **Learning Design specification released** as v1.0 in February 2003; UNFOLD begins in January 2004
- **Key LD innovation:** connecting the environment (content, services, tools) with people (learners, teachers) in a coordinated *workflow* of activities

The initial context ...

- **Lack of tools:** work in progress towards a reference implementation (on a quite complex specification)
- **Lack of awareness:** of the need of a specification for good description of teaching activities
- **Dominance of proprietary Learning Management Systems:** with some SCORM support for content interoperability

... barriers to adoption

- **Immature tooling** preventing all but the most technically-capable to engage with the technology
- **Lack of a community** of practitioners for mutual support
- **Lack of real-world examples** from which to build a local case for adoption, and of information at a range of levels for different audiences

The UNFOLD goals

- **A two year project (from Jan 04) to promote IMS Learning Design adoption** through support of Communities of Practice
- **Partners:** UPF, OUNL, CETIS, EUCEN
- **A web community:** with resources, exchanges, ...
- **Face to face activities:** seminars / workshops, ...
- Focused on promoting tools use, and promoting interoperability

UNFOLD in a changing context

- **SCORM** progress, supported by commercial LMS
- **Quick development and deployment of FLOSS LMS**: mainly in higher education, ...
- **Continuous progress of the web**: maybe modifying the e-learning landscape ...
- **Delay in reference implementations**
- **Other tools supporting IMS-LD appearing**

... changing strategy ...

- **Keeping the line of supporting tools development** (and supporting interoperability); supporting hands-on workshops – although tools still rough ...
- **Centered** on awareness of the need of good description of teaching, probably reflecting immaturity of e-learning (or f2f combined with e-learning), stimulating discussions of models of teaching practice

... changing strategy

- **Creating good examples** (good practice), examples of Units of Learning, examples of templates of teaching practice
- **Discussion with FLOSS LMS:** mainly centered in interoperability of “good teaching descriptions” as having real pedagogic value (added to the FLOSS approach)
- **A Community of Practice** built

Results: support for IMS-LD ...

- an active Community sharing resources (units of learning, documents, courses ...)
- a range of tools developed, demonstrated, and refined with the community interacting (ASK-LDT, Collage, RELOAD, CopperCore, LAMS, COSMOS, MOT+)
- awareness for teaching modeling (patterns and design principles identified), and connection made between technology and pedagogy concerns
- LD interoperability awareness increased (Moodle, dotLRN, ...)

... Results: support for IMS-LD

- Workflow technologies have gained rapidly in maturity and adoption across a range of sectors
- Some aspects described in LD, such as services, have become of much greater interest
- UNFOLD activity has been good value for money (compared with SCORM support)
- **Wide acceptance of IMS-LD not achieved**
 - Need of a longer period? Too research yet? E-learning still quite immature? Overambitious? Appropriate for the different target groups? ...

Beyond UNFOLD

- Standards adoption is a complex process. Lots of effort required at different levels: community exchanges, tools, exemplary models, ...
- Interplay of research and adoption (stability). Changing landscape.
- Research and standards continued in the TenCompetence project (competences new strategy)

Media related projects: adopting standards, promoting some ...

Virtual characters: PVML from SMIL

- **Automatic TV production**: the project goal is the generation of weather forecasts for hundreds of cities every hour
- **Standards “inspiration”**: the core of the production is PVML, which is 'our' version of W3C SMIL specification
 - Aims at capturing state of the art
 - Aims at taking advantages of interoperability and future proof reuse
 - Highly modified to achieve appropriate performance and media quality

IP-RACINE: Digital Cinema from scene to screen ...

- **IP-RACINE**: a large project aiming to drive cinema from film to digital, in a workflow from scene to screen, that is, from capture, through postproduction, towards exhibition
- **Partners**
 - **Industry**: Thomson (Grass Valley and Deutsche), Barco, XDC, Brainstorm, Pandora, FilmLight, DVS, MediaPro
 - **Research**:UPF, HU, GU, JRS, FSSG

Different requirements from scene to screen

- **Exhibition:** clearly needing standardisation (all movies in all theaters); driven by Hollywood majors – with conflicts with European orientations; MXF, DCI (compliance tests by Barco and XDC)
- **Capture and postproduction:** “small” market and relatively large budgets, driven by demand of higher and higher quality; proprietary systems
- **BUT:** integrated workflow demands interoperability; and interoperability enhances the value chain for industrial partners

Standardisation

- **Capture:** Thomson proposals for better (and unique) definition of metadata at the time of capture – SMPTE proposals; need of gathering requirements also from postproduction (and exhibition)
- **Postproduction:** JRS – a specific “high quality” audiovisual profile proposal in MPEG7 (DAVP); work on AAF
- **Colour preservation:** the key added value in the Digital Cinema chain; ICC/Academy standards proposal for new colour model which can be transmitted along the DC chain

Provisional summary

- **Promoting standards adoption:** requires time, effort, budget in large amounts (and success, i.e. wide acceptance, is not guaranteed); worth anyway for stimulating research
- **Media related standardisation:** it involves a lot of names (fragmented areas); but key to interoperability, and new workflow; and captures state of the art. A lot of effort required
- **Future proof strategies:** ensure standards portability; they might not be widely adopted and migration might be needed at some stage



Departament de Tecnologia and Institut Universitari de l'Audiovisual Universitat Pompeu Fabra

Passeig de Circumval·lació, 8 - 08003 Barcelona
Tel : (34) 93 542 2500 y (34) 93 542 2201
Fax : (34) 93 542 2202

[josep.blat at upf.edu](mailto:josep.blat@upf.edu)

<http://www.tecn.upf.edu/gti>