

Challenges for Open Source Development Communities in Engaging with IMS

A workshop was held during the IMS Learning Impact 2009 conference in Barcelona on May 14 to address the subject in the title above. The event was organised by IMS Members in Europe.

The CEO of IMS, Rob Abel provided an IMS perspective and the workshop discussion was based around a number of case studies presented by Francesc Santanach (Universitat Politècnica de Catalunya), Marc Alier (Universitat Politècnica de Catalunya, Ross Mackenzie (Open University), John Norman (University of Cambridge), James Ballard (University of London) and Charles Severence (University of Michigan). A written contribution was also provided by Greg Gay from the University of Toronto.

The following sections reflect the main themes of the workshop and the comments and guidelines which emerged which we hope will be of use to open source communities.

Special problems facing Open Source communities

- Open source (OS) products have low market share.
- OS communities that have products with high mark share are not so interested in investing resources in interoperability and view it as a low priority.
- The business benefits of IMS and standards are still unclear for OS development communities and not as clear for systems development as for content development.
- There seems to be a reliance on large corporations to fund developments (e.g. Microsoft, Pearson, McGraw Hill). While there is nothing wrong with this, it does imply that developments would be to their advantage, with OS communities possibly receiving a knock-on benefit effect. That is not really an OS community driven development incentive and may be subject to resistance.
- IMS “members-only” access to drafts under development grates on OS values, drives some folks away on principle – this makes it hard to get volunteers motivated because much of their work is based on principles and passion.
- Few organisations want to be part of a working group for 2-3 years and this applies even more so to OS communities.
- It is not easy to integrate all of the work of the IMS community.
- OS communities are often very pragmatic and will do as little as is needed: build first and worry about standards later.
- For systems, there is a temptation (and often internal pressures) to work to minimal data interchange – published standards are often a superset of the minimum.
- There is a perceived overhead in working to a standard and often the sophistication of the standard is questioned.

How collaboration can happen

- Specification developments benefit from more people involved in the review process. This is something OS communities can bring to specification development – ie a community view.
- OS reference implementations can play a critical role in the adoption of open standards
- Adoption by OS groups is no different that that by commercial groups
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How standards support an integrated approach

- Standards offer open source communities a quicker way into the market.
- Support for interoperability fits the OS philosophy.
- Lots of organisations like to play and do interoperability demos as long as it is easy and they are well supported. Again, this is a benefit to OS communities.
- Member organisations working with OS technologies can draw on IMS community for technical insights, which can work if they are already visible/active in IMS
- There are lots of drivers around content, everyone wants e-learning content, it is seriously expensive to produce, there are kudos to be gained from sharing and profits to be gained from selling.
- The work of the Mahara OS community with JISC CETIS and the SimpleLTI project, demonstrates that prototyping can be a successful model for engaging OS communities in standards development, It does however, require effective project management to succeed.

Relevant IMS specifications and OS Community Experience

- **LTI** – recent developments have been carried out within the IMS Developer Network in parallel with the LTI 2.0 Working Group. This Simple LTI specification is only for developers who want to experiment with something that might be “similar” to IMS LTI and embedding SimpleLTI in a course common cartridge. The specification is very much part of ongoing engineering experiments and demonstrations and will change as experience is gained. This experience will be fed back into the IMS LTI 2.0 Working Group as input and serves as an exemplar of the an IMS related development process which is likely to appeal to OS communities.
- **LIS** - The objective of this work is to develop the Learning Information Services (formally Enterprise Services) v2.0 specification that will introduce of a set of new functionality as well as make definitive clarifications on a number of issues that will have implications for some of the established functionality. This is scheduled for completion at the end of 2009 and several higher education institutions who use OS LMSs have expressed interest in this work.
- **Content Packaging** - there is a problem with the levels of compliance that are possible, which only reward systems that import content packages. With the ability to export content, it also opens the possibility of users of such systems taking their content and moving to another system, which from a business perspective might not make good business sense. There is little motivation for a business oriented OS system to adopt exporting of content. It needs to be emphasized to users of LMSs and similar systems, that the ability to move content out of a system in a standard format, and import it back into another system should be a key selling feature of these systems. If such functionality is not available, users can be locked into a system, unable, without significant effort, to change systems if they decide they want to move their courses

- **Common Cartridge** - The same issues affecting content packaging apply, particularly regarding levels of compliance, and motivation to implement exporting capabilities. At the moment, only the ability to import cartridges is recognised in levels of compliance. There is no recognition of this in the levels of compliance that can be reached.
- **AccessForAll** - To encourage developers to introduce AFA capabilities, it could be included as a level of compliance with Content Packaging and Common Cartridge.
- **ePortfolio** - IMS ePortfolio is geared towards transfer of content between a LMS and ePortfolio rather than between ePortfolio transitions. Whether this is the US approach or not, it certainly seems out of sync with UK and EU ePortfolio user communities where experience has shown that the student is placed at the centre. At this stage LEAP2A looks attractive, especially for UK based institutions where it is already tested across LMS platforms.

OS community requirements

- A much lighter weight version and approach – “IMS Lite”!!
- Having an open non-specifications which allows for broad involvement and increases interest in IMS membership.
- For certain specs, producing open non-spec documents that let new organisations and people become interested and involved in IMS processes in the early phases.
- A series of simple specifications which allow quick exploration of engineering issues that allow engineers and engineering experiments to inform the formal standards making process.
- Standards to launch learning tools to devices such as smartphones and support the semantic web.
- Outcome store and resource annotation standards.
- The OpenSocial/Shindig process may prove useful
- Community dedicated to go to market activities.
- IMS application profiles.
- Improved early testing.
- Improved cycle time and time to market.
- Useable artifacts and convergence.
- Major platform adoption

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