



IMS Global Learning Consortium Call for Participation:

Interactive & Connected Educational e-Book (ICE)

The Opportunity:

There are many potential benefits of greater use of digital materials in education, including:

- Engagement through interactivity
- Performance data and analytics
- Immediate assessment and feedback
- Better support for continued expansion to diverse blended learning models
- Personalized content and learning paths
- Potential cost savings versus physical textbooks

Indeed, because of these potential benefits many states, institutions and even national governments are promoting digital alternatives to paper textbooks.

The Challenge:

The challenge is that very few, if any, of the above potential benefits can be realized from digital educational resources if they do not easily work in the software applications and platforms that teachers, students and institutions use. And, if the digital resources do not provide easy cross-platform, connectivity with these same educational applications it is doubtful that they can be used other than in a standalone mode. Ultimately lack of the required “interoperability” of these products will lead to frustration on the part of the customers.

Cases in point are the proliferation of digital resources on proprietary consumer platforms such as Amazon, Apple and Google. While there is a very high interest in new digital learning resources, ultimately the adoption will be thwarted because they do not integrate well into the lives of teachers, students or institutions. Thus, what appear to be exciting new innovations are headed for a major let down in the ability for the education segment to truly benefit in the transition to digital.

The Good News:

It turns out that there has been much progress in e-book and learning resource interoperability. Publishers and other suppliers interested in e-book interoperability

have primarily gathered around the IDPF's ePub activities. Educational institutions and suppliers have primarily gathered around IMS's LTI, Common Cartridge and QTI activities. Both IDPF and IMS have significant rates of market adoption worldwide among leading suppliers. And the work of these two non-profit standards consortia are very complementary as IDPF has focused on a wide range of e-Book requirements while IMS has focused on specific education segment requirements. In fact, several of the IMS member organizations, including Vital Source and the Korean Education Research and Information Service (KERIS) have prototyped how specifications from IDPF and IMS may be used together to address advanced educational requirements.

The IMS Interactive & Connected Educational e-Book (ICE) Initiative

What is missing in the enablement of the education e-book of the future is adoption of interoperability specifications that, for the most part, already exist. Therefore, IMS Global is forming an activity that focuses on a step-by-step implementation of educational e-books that are both interactive and connected. The market has to get beyond competing on basic table stakes integrations and become focused on better experiences for students and teachers.

Each phase of the ICE program will last approximately 3 months and each phase will have a dual purposes:

- (1) Provide an in-depth workshop/examples to implementers on how to use a specific standard or logical grouping or standards to achieve a key aspect of interactivity and/or connectivity
- (2) Provide input from implementers to finalize an online open specification for ICE best practices

The project work will be led by the IMS Contributing Member organizations, but open to participation from any individual or organization. Each phase will consist of a kickoff at an IMS quarterly meeting and a test fest or other demonstration of interoperable implementations. Here is a tentative schedule of the initial phases, subject to the approval of the workgroup leadership:

- (1) Phase I: Building interoperable educational applications and content services via IMS LTI (1st meeting at [IMS Learning Impact LTI workshop](#))
- (2) Phase II: Building interactive content using IDPF ePub3
- (3) Phase III: Achieving ePub3 enterprise connectivity and analytics/performance dashboards using IMS LTI and Common Cartridge
- (4) Phase IV: Interoperable assessments in ePub3 using IMS QTI/APIP
- (5) Additional Phases: Federated Search/Metadata, Accessibility, Student Information, Outcomes

Interested parties can be added to the mailing list by filling out the request for information form here: <http://www.msglobal.org/contactus.cfm>