Experience API Conformance Testing Group

Virtual Kickoff – January 21st, 2014

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Why We Are Here

• Success of the Experience API (xAPI) has put us in a position where we need to think about Conformance Testing

• Version of the specification 1.0.1 is out and stable

• Expecting more adoption with more stability, so now is the time
What is Conformance Testing?

• Conformance Testing is the validation of a system (in xAPI “Learning Record Store (LRS)”) or content (in xAPI “client”) to the behaviors set forth in the specification.

• We will look at the xAPI specification and break it down into specific tests to determine conformance.

• In the case of xAPI as it was with SCORM, software will be used.
Why is Conformance Testing Important?

- Important to make sure all members of a Community of Practice are on the same page.
- Will make the specification “battle tested” and clean up grey areas.
- Helps the specification do what it does best – increases interoperability (via accountability)
Why Should I Get Involved?

• So many reasons!

  • Chance to make a difference in development of what we see as a “big deal” in Educational Technology
  
  • Help to avoid shortcomings of the past by shared perspectives and effort
  
  • Start on the ground floor of an Open Source project with a lot of visibility
  
  • Experience and Networking
Why Doesn’t ADL Just Take Care of This?

• Being the sole author and not an end user is a bad combination

• Multiple perspectives gives a more thorough test

• To avoid the “Test Suite problem”
  • Fluctuating ADL resources and allocations
  • Rapidly changing technology
  • Research vs. Maintenance
Isn’t xAPI Going To A Standard’s Body?

• The end goal is still to have the Experience API become a formal spec via a Standard’s Body

• ADL is working to find a match as well as vet legal issues around this transfer

• Still want to transition the best possible product to a Standard’s Body

• Our “membership” is completely open, so it is better to get involved now!
Isn’t There Already an xAPI Group?

• There is an xAPI Group that focuses on the actual specification document.

• However, that group may wish to explore deeper instructional issues, practices, etc.

• This group’s sole focus is building software and documentation supporting conformance.

• Certainly cross-participation is welcomed! The meeting time and group mail/forums are the same to promote this practice.
So, What’s The Plan?
“Treelike” Conformance Approach

• SCORM Conformance Testing had a single tool to allow both system (LMS) and content (package) to be deemed conformant.

• xAPI will do LRS Conformance Testing only, BUT will have LRSs be responsible for content conformance (meaning the LRS Test will test content conditions)

• This means ANY conformant LRS can test content/client conformance
Modular Nature Of Tests

• Specification will be broken down into LRS “MUST” requirements.

• Puts these in a Testing Requirements Document which LRS Tests can reference.

• Base set of LRS Tests establish conformance to xAPI, but will allow extensions for other Communities of Practice.

• Each LRS Test will reference exact requirements for what constitutes "Pass" and "Fail" states.
Open Source

- Apache 2 Creative Commons license
- Using GitHub (https://github.com/adlnet/xAPI_LRS_Test)
- Completely Open to public, ADL manages pull requests and issues
- Restricted by GitHub permissions on projects, or would allow community admins as well
Schedule

- Meet twice per month for team meetings, but collaborate via email, forums, and GitHub in-between.
- First complete the base test, then proceed to other topic areas.
- Flexible schedule in terms of how long this takes and in how frequently we meet.
So Who Should Be Involved?
LRS Developers

• LRS Developers bring a valuable interpretation, often resulting in a particular implementation of the spec itself.

• We can leverage this to define a common understanding.

• Code snippets, testing plans, and other practices that developers are willing to share can accelerate development.

• Enable the idea of harnessing LRSs with the ability to test clients/content.
xAPI Client and Content Developers

• Those using xAPI for developing clients, apps, or content bring valuable experience with testing content to the table.

• Can make sure the practice of harnessing LRSs as conformance test, rather than a single central test, remains viable.

• May be able to provide format ideas for the Test “packages” of the software.
Programmers

• In the end, the effort will be a software development project.

• Without programmers, we can create documentation but nothing else.

• Feel free to help out even without xAPI knowledge, we will help fill in the gaps.
Decision Makers

- Behind every traditional LMS implementation, is someone that decided to either build or purchase it.
- This paradigm will likely remain the same for LRSs.
- May or may not know the technical implementations, but are very aware of pitfalls of systems and historical conflicts with conformance.
Anyone With Perspective

• Whether you have a professional or recreational interest in educational technology, your view and participation is welcomed.

• This isn’t to discount other roles we haven’t mentioned, it is just the perceived technical nature of the project and the narrow scope.

• This project could have needs of information or types of expertise we currently aren’t accounting for, so we urge you to participate.
Any Questions?
All of this will be linked from the Experience API portion of adlnet.gov as well as mailed to the Google Group.

Google Group:
https://groups.google.com/a/adlnet.gov/forum/#!forum/xapi-spec

Weekly Call:
https://www2.gotomeeting.com/register/641325538

GitHub Site:
https://github.com/adlnet/xAPI_LRS_Test

Or email me: andy.johnson.ctr@adlnet.gov