The Shortest Path to Supporting LIS 2.0

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Integration As a Pillar of Educational Software Provision (SaaS)

Why did Chalk & Wire™ Undertake both ends of the Equation (LTI and LIS)?
Who is Chalk & Wire?

- The world’s oldest Assessment System & Platform developer (17 years +)
- Serve more than 450 institutions in the USA, Canada, Australia, New Zealand & the UK.
- A company of educators not Dot Com entrepreneurs.
- First to develop assessable ePortfolios that were WYSIWYG and assessed to result in program and institutional reporting and analytics about student learning over time.
- Extended our integrated Platform to encompass all possible sources of institutional data about performance and experience of any kind.
- Both quantitative and qualitative data collection.
- Reporting analytics extend far beyond simple compliance tables.
- Focus on CoreValidity™ = Methodology for accelerating maturation of assessment systems and the correspondingly higher value of them to all stakeholders.
- Earliest player in cross-campus application of assessment platforms for the purposes of determining outcomes-based, competency assessment. Schools won awards (CHEA, ALGS)
- Unique and agile business model – innovation and research are the drivers.
- Trust through “Thought Leadership”, innovation and support.
The Problem

• Assessment is an “add-on” rather than a natural, integrated element of campus life.
• Double work – the same work is assessed twice (grade and competency).
• No links to SISs (no rosters, auto-account creation, or scheduled data exchanges
• Assessment too closely linked to compliance).
• “Accreditation Management” has become a class of software unrelated to Assessment Platforms (narratives not organically derived).
• The frustrating campus “data hunt” from multiple sources to feed narratives.
• Compliance has low value to internal stakeholders but is accepted as essential.
• Low value data = little impact on the value-added debate or process.
• Compliance reporting is VERY expensive (many standalone tools, high human capital costs, highly redundant workflows).
• Assessment is not producing systematic processes that lead to alignment and a common language of assessment.
• Assessment is not engendering sustainable assessment cultures that DO add value.
The Solution

• IMS Global Standards.
• First to become LTI 1.1 certified in sector.
• First and only to be LIS 2.0 Certified.
• Goal: become the invisible “big cog” in the campus-wide assessment machine.
• Nest and connect the solution transparently between the LMS and the SIS.
• Capitalize on day-to-day work of teaching and learning.
Business Benefit

- Three years ago, less that 8% of C&W clients had any form of integration. All with native/public APIs.
- Today 56% have some form of integration (LTI most commonly)
- LTI is now a non-negotiable item for most campuses approaching us.
- 2014, 85% of qualified leads seek integration.
- LIS 2.0 is a carrot attracting other new clients.
- Bottleneck: too few SIS systems are compliant.
What is LIS for?

- Different systems take different views of the same data.
- LIS is a specification that allows systems to exchange information about people, courses, groups, memberships and outcomes in a standard way.
- Commonly it is used to integrate Student Information Systems (SISs) with LMSs...
LIS: Spec vs Certification

• Whole spec is 10 services, order of 150+ service requests ...

• ... But you don’t need the whole spec.

• Basic Certification covers Enrolment use case
  – 4 services, 12 requests.
    – Replace, Delete and Read for each service
    – (You can go further with final grade exchange and other profiles).
Psydev Gateway Architecture

Student Information System ➔ IMS LIS ➔ TOMCAT

- LIS Listener (Gateway)
- Internal Format Converter
- Target System Adapter

VM

Moodle (LMS)

System Specific API Call

Chalk and Wire (e-Assessment)

Internal DB
The Plan with C&W

1. Build a proof of concept for Enrolment
   – Using Gateway, Using C&W APIs
   – C&W set up a test environment on a dev branch for us

2. Development
   – We identified the areas for C&W to extend their API
   – As extensions were implemented we tested and iterated with C&W

3. Real Conformance Testing

4. Deliver

5. C&W Got Certified
The Challenges

• Do you have an API?
  – Does it do ...? (e.g. add / remove from group)

• So can you make some changes?
  – Disagreement between LIS view and system view
  – Lots of back and forth
  – Need to make sure that test instance is up to date

• Gotchas-
  – Database / API data sizes vs spec field sizes
  – Oddities (the “33” problem when creating groups)
What did we learn?

• For Psydev, this project helped to prove to us that our basic approach worked.

• But we also learned what to look for when evaluating APIs of other systems. We’ve now worked this into our offerings.

• It was also a great collaborative experience – C&W have given us a bunch of ideas of how we can improve our software.
Q&A