Experience API

A Historical Overview

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Possible Outcomes of IMS Caliper Collaboration

Jason Haag
Systems Engineering & Technical Advisor (SETA)
TTGI, Inc. In Support of the ADL Initiative
“Provide access to the highest quality education and training, tailored to individual needs, delivered cost effectively, anywhere and anytime.”

- ADL Vision
xAPI
one part of the solution

Learning analytics was not the only need, but is often heavily emphasized as the main purpose
SCORM Model

LMS

(LMS-based)

(Assynchronous)

Single Learner
SCORM Model

(Browser-based content)

Single Learner
1. Should support any content types, any platform
2. Should be simple to implement
3. Should support cross-domain communication
4. Should support all types of learning experiences
5. Improved access to learning data (outside of LMS) for improved analytics & reporting
6. Improved capabilities between instructors and learners
7. Improved options for supporting unique security requirements
xAPI HIS STORY

2008

- Requirement to “modernize” SCORM communication framework (and solicit new requirements)
- Community-derived use cases, interviews, over 100 white papers

2010

- ADL Broad Agency Announcement (BAA) to research an “Experience API”

2011

- Launched BAA project (Project Tin Can) – Rustici Software
2012
- TinCan API v 0.95

2013
- xAPI v 1.0

2014
- xAPI v 1.0.2
- CoPs, Profiles, and Recipes

2015
- SCORM Profile of xAPI
- Cmi5 Profile of xAPI

2016
- Vocabulary Companion Spec & Primer
- xAPI v 1.0.3
TLA Research

Experience Tracking (xAPI)

Content Brokering & Meta Adaptation

Learner Profile

Competency Frameworks

Run Time Environment (RTE)

Content Aggregation Model (CAM)

Sequencing & Navigation (S&N)

Any Learning Activity On Any Platform

Web Browser-based Instruction/Training
Total Learning Architecture (TLA)

- Experience Tracking
- xAPI
- Learner Profile
- Competency Frameworks
- Content Brokering and Meta-Adaptation
- New Tech & Methods

Next Generation Learning Ecosystem
Use Case (MOOCs)
Browser Bookmarklet (formal, informal, nonformal)
Use Case (Mobile Apps)

SMS Learning, Social Media, E-Books
Use Case (Games)

Mobile Gamification

Game List with Progress Information

Game Details, Progress & Options

Learner Status via 3 Different Leader Boards
Use Cases (Badges + Competence)

Mozilla Open Badges

- They see xAPI as complimenting Badges’ “evidence” data (add standard meaning for objectives)
- Badges as indication of competency
- Profile and vocab: [http://specification.openbadges.org/xapi](http://specification.openbadges.org/xapi)
Focus on one step per staff meeting
Usage over time

How are documents being used?

Which documents are being used?
Use Case (Performance + Sensors)

Psychomotor Domain?

- Procedural tasks (guided response)
- Evaluation by instructor, mentor may be required for accurate assessment
- Mobile capture using camera?
- Using sensors to report xAPI Statements
- Potential feedback loop

RFID + Arduino + ElectricImp + xAPI, LRS
Radio Frequency Education (RFED)

Mobile + xAPI + RFID Tags – Ann Arbor Hands On
REAPER (Army / Riptide Software)

Data Mining Live Training Ranges

Currently Scorecards Only

U.S. Army Live Training Community

Provide Data Views

Ft. Benning Oscar 9
Modified Record Fire (MRF)
Location Of Miss And Hit (LOMAH)

DTMS

DTMS CAPABLE

LRS

Riptide HQ

Provide Data Visualization & Training Tips

4 Digit Soldier ID

TRACR

xAPI

LRS

Hardware Encryption

Range Operations Center

Cellular Data Network

Individual Soldier
Your shot group results indicate the following fundamental training should be reviewed: **Trigger Squeeze**
Android Wear (Gear Live)

Live action emergency/medical field scenarios
Why LinkedIn should kill the résumé and replace it with the experience graph

Posted 4 hours ago by Garry Golden (@garrygolden)
Possible Collaboration Outcomes

1. **Identify Key Features.** For example: storage options, sub APIs, differences and similarities between xAPI vocabularies, profiles, and recipes compared to the Caliper information model and metric profiles.
2. **Identify Technical Integration Points.** Determine if it technically feasible to harmonize both specifications based on key features, data models, security, privacy, transport mechanisms, etc.
3. **Terminology Harmonization.** Determine if it is semantically possible to compare the terminology or harmonize the specs to “sound” more like each other with agreed upon language.
4. **Convergence or Compatibility.** Determine if convergence into one specification and eventually, a standard is possible, and if not then if a crosswalk of data models a suitable option to support compatibility.
5. **Clarity.** If none of the aforementioned outcomes are possible then establish clear messaging, agreed upon by both communities of when to use Caliper and when to use xAPI. This helps customers understand value proposition.
Caliper + xAPI Interest

• 53% would like to see Caliper and xAPI converge, 33% not sure

• 78% would like to see a crosswalk/mapping of the data models and think it would be beneficial to both communities

• 38% of the respondents have already began work on comparing the two specs and are willing to share their findings

• **We can’t do this without YOU!**
Thank You

Jason Haag
jason.haag.ctr@adlnet.gov
Twitter: @mobilejson
Linked In: