Comprehensive Learner Record: Tools to Support a CLR Initiative

IMS Roundtable
September 28, 2020
Thank you to our IMS Digital Credentials Initiative Sponsors
IMS CLR Roundtable: Learn & Lead

- Monthly open forum for institutional leaders
- Focus on strategy, design, and implementation
- Building a community of support
- All events will be recorded and posted to our website
  https://www.imsglobal.org/event/ims-clr-roundtable-open-public
# Attendee Poll

## 1. What is your role?

<table>
<thead>
<tr>
<th>Role</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Affairs / Provost</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>Admissions</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Career Services</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Continuing Education</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>10</td>
<td>33%</td>
</tr>
<tr>
<td>Registrar</td>
<td>8</td>
<td>27%</td>
</tr>
<tr>
<td>Student Affairs</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>27%</td>
</tr>
</tbody>
</table>

## 2. What stage are you at in your CLR initiative?

<table>
<thead>
<tr>
<th>Stage</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully implemented</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>In process of implementation</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>Planning stage</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>Investigation stage</td>
<td>20</td>
<td>67%</td>
</tr>
<tr>
<td>First time learning about CLR</td>
<td>3</td>
<td>10%</td>
</tr>
</tbody>
</table>

## 3. Do you have a platform for generating your CLR?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>5</td>
<td>17%</td>
</tr>
<tr>
<td>No</td>
<td>25</td>
<td>83%</td>
</tr>
</tbody>
</table>
Speakers

● Clint McElroy, Analyst/Programmer, Indiana University
● Jeff Bohrer, Technical Program Manager, IMS Global Learning Consortium
Interoperability of data is possible when all parts of the ecosystem use the CLR 1.0 standard.
imsglobal.org/clr
Comprehensive Learner Records

What makes CLR unique?

- **Official record** of learning achievements and skills through all stages of education and work
- Captures achievements and competencies in **context of a learning experience**
- **Transferable** among organizations as an immutable and complete record
- Privately **shareable** by the learner or the employee in whole or parts and electronically **verifiable** by the recipient
- Can contain badges **AND** non-badged achievements
CLR Standard

Adopting certified CLR tools equips your learners with verifiable and interoperable records.

√ CLR 1.0 is available now.
√ CLR 1.0 defines a data model and REST API
√ Early adopter educational institutions and suppliers are currently implementing CLR 1.0.

More details at imsglobal.org/clr
AACRAO Guidance

“Postsecondary institutions of all types and at all levels that are currently using any form of micro-credentials, digital diplomas and certificates, or digital student records or other types should work to migrate that information into the IMS CLR standard.

New records that are being developed should be written to this standard. Commercial software suppliers should adopt the standard as soon as possible to enable learner-controllable records in the IMS open standard.”

Early Adopters of CLR 1.0

➢ Indiana University
➢ Johns Hopkins University
➢ Univ. of Maryland Baltimore County
➢ Western Governors University
➢ Broward County Public Schools
➢ Edina Public Schools
➢ North Dakota DPI
➢ AEFIS
➢ Core Learning Exchange
➢ ELocker
➢ Greenlight Credentials
➢ iDatafy / SmartResume
➢ Paradigm
➢ Peridot / LearnersEDGE
➢ Public Consulting Group
➢ Teacher Wallet by RANDA
First-Year Hoosier Experience Achievement Award
What is the Hoosier Experience?

• A program to enhance a student’s first-year experience by attending campus events

• Events highlight the areas of Academics & Careers, Arts & Humanities, Equity & Inclusion, and Community & Engagement

• Earn the award by attending 6 or more events
Why did we choose the CLR standard?

- Provided a way to transmit additional information
- Ideal CLR pilot project
- Our vendor was willing to learn with us
- Scalable to future projects
- Portable
How did we get started?

• Identified and kept what worked
• Establish communication channels early in the project
• Used the CLR specifications as a blueprint for data structures
Where are we now?

- Went live in March
- Scalable back-end data structures in place
- More comprehensive understanding of the CLR standard
What’s next?

• Update the JSON-LD payload to include verification

• Achieve compliance with the REST/JSON Binding standards

• Identify new projects that will benefit from the CLR standard
Audience Question & Answer

?
CLR Resources

√ Technical documentation
√ Prototype applications
√ Procurement guidance for institutions
CLR Technical Documentation

Comprehensive Learner Record

Summary
The Comprehensive Learner Record (CLR) is the new generation of secure and verifiable learning records supporting all nature of learning recognition and achievements including courses, competencies and skills, and employer-based learning achievements.

Recommended by AACRAO, the American Association of Collegiate Registrars and Admissions Officers, the IMS Global CLR is designed to support traditional academic programs, co-curricular and competency-based education as well as employer-based learning and development - in any domain where it’s important to capture and communicate a learner’s and worker’s achievements in verifiable, digital form. Designed to be used, curated and controlled by the learner, the IMS Global CLR is a modern and web-friendly interoperable learner record structure for easy understanding yet flexible enough to support a wide range of use cases to meet the needs of learners and workers, registrars and employers.

Transformative in its potential across education and workforce the CLR is the product of five years’ efforts by IMS, its members and partners in the community. CLR leverages the Open Bridge standard and is compatible with the W3C Verifiable Credentials and the Credential Engine Registry (see quickstart Guidance). The CLR has earned verifiability but for an added degree of permanence implementers may choose to authenticate ownership with a blockchain solution. IMS Global’s Comprehensive Learner Record is a verifiable, secure learner record for the 21st century.

Specifications
[view all...]

Equitable
Transparency enables economic and social mobility

Verifiable
Digital credentials are valid and authentic

Relevant
Covers learning in education and employment

Interoperable
Machine readable, exchangeable, actionable

Product Roadmap
[view all...]

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CLR Technical Documentation

Specification documents
- Data/information model
- REST/service model

Implementation Guide
Conformance Certification Guide
OpenAPI (Swagger UI)
JSON Schema
JSON-LD Context

imsglobal.org/clr
IMS Developer Webinar: CLR
How to implement CLR standard
37 minutes
bit.ly/clr-vid

imsglobal.org/clr
CLR Prototype & Reference Applications

IMS Digital Credentials
Reference Implementations and Prototype Applications

**Comprehensive Learner Record (CLR)**
- Reference Implementations
  - CLR Consumer
  - CLR Provider
- Prototype Applications
  - CLR Wallet - Wallet-style application that can manage CLRs retrieved from multiple CLR sources
  - CLR Builder - CLR builder that can create and edit CLR data

**Badge Connect™**
- Reference Implementations
  - OB Consumer
  - OB Provider
- Post issues in GitHub
CLR Prototype & Reference Applications

Comprehensive Learner Record (CLR)

Reference Implementations
- CLR Consumer
- CLR Provider

Prototype Applications
- CLR Wallet - Wallet-style application that can manage CLRs retrieved from multiple CLR sources
- CLR Builder - CLR builder that can create and edit CLR data

Post issues in GitHub
CLR Prototype & Reference Applications

Access Request for dc.imsglobal.org

Thank you for your interest in the Comprehensive Learner Record. IMS Global is providing access to CLR prototype applications and reference implementations to select organizations. To request access, please submit this form, and IMS will follow-up with further instructions.

* Required

Name *
Your answer

Title *
Your answer

dc.imsglobal.org requires an IMS member account

**Attendees of CLR Roundtables may request access:

bit.ly/IMS-access-request
# CLR Prototype & Reference Applications

![CLR Builder Interface](image)

<table>
<thead>
<tr>
<th>Profiles</th>
<th>Achievements</th>
<th>Assertions</th>
<th>CLRs</th>
</tr>
</thead>
<tbody>
<tr>
<td>No profiles yet. Click Manage to create a profile.</td>
<td>No achievements yet. Click Manage to create an achievement.</td>
<td>No assertions yet. Click Manage to create an assertion.</td>
<td>No CLRs yet. Click Manage to create or import a CLR.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alignments</th>
<th>Associations</th>
<th>Endorsements</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- **Manage**

**Assemble CLRs from Profiles, Achievements and Assertions.**

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CLR Prototype & Reference Applications

Dashboard Demo
Get your Comprehensive Learner Records from multiple sources. Share them with people.

CLRs

- Atlas University - 06/12/2018
- Project Management Consortium - 06/19/2018
- Intel Corporation - 06/17/2019

Shareable Links
Create a new shareable link to get started
# CLR Prototype & Reference Applications

![Image of CLR Prototype & Reference Applications](image)

A Comprehensive Learner Record (CLR) is a record of your curricular and non-curricular learning achievements. Each CLR comes from a single publisher (such as your school) and contains one or more of your achievements.

<table>
<thead>
<tr>
<th>CLR</th>
<th></th>
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<tbody>
<tr>
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<tr>
<td>Issued</td>
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<tr>
<td>Name</td>
<td>Project Management Introductory Certificate</td>
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</table>

<table>
<thead>
<tr>
<th>Learner</th>
<th>Publisher</th>
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<tbody>
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<td>Id</td>
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<tr>
<td>Name</td>
<td>Name</td>
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</tr>
<tr>
<td>818727</td>
<td>1425 Walnut Street, 10th Floor, Portland, OR 97229</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assertions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management Introductory Certificate</td>
<td></td>
</tr>
</tbody>
</table>

Back to Your CLRs
CLR Procurement Guidance

Procurement Guidance for Comprehensive Learner Record Systems

This document provides a brief description of the IMS Comprehensive Learner Record (CLR) standard, sample statements for inclusion in an institutional RFI/RFP document, additional guidelines, and a sample set of requirements for a CLR-conformant credential management platform.

What is the Comprehensive Learner Record (CLR)?

The CLR standard is a new generation of secure verifiable digital records for learners, supporting all types of learning experiences and achievements including degrees, courses, credentials, badges, competencies, co-curricular skills, and achievements, prior learning, internships, and experiential learning.

CLR is designed to support traditional academic programs as well as co-curricular, competency-based education, and mastery-based learning to capture and communicate a learner’s achievements in verifiable, digital form. Based on IMS Global’s work in digital credentials, and closely following the guidance and recommendations of AACRAO, the outcome is an example of a modern, web-friendly, machine-readable learner record, structured yet flexible enough to meet the needs of learners, registrars, and employers.

RFP Language and Resources for Procurement

The RFP/RFI process is an ideal time to ensure a commitment to open standards by an institution’s technology suppliers. The IMS certification process guarantees that products are conformance certified for specific IMS standards to ensure the interoperability of data between other similarly certified platforms. IMS certification also indicates that the suppliers of certified products are committed to resolving issues related to their adoption of IMS standards.

The following statements are recommended for use in RFPs.
**CLR Procurement Guidance**

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**SAMPLE RFP WITH REQUIREMENTS**

**Credential Management Platform for Comprehensive Learner Records**

Request for Proposal Minimal Requirements

[Education provider] seeks to recognize and record its learners' knowledge, skills, and abilities (KSAs) using interoperable and verifiable digital credentials that adhere to an open interoperable standard, the Comprehensive Learner Record (CLR) published by IMS Global Learning Consortium.

The education provider will be referred to in this document as the record publisher (“Publisher”). The CLR Publisher seeks to license software in the form of a Credential Management Platform (“Platform”) to create and manage its comprehensive learner records on behalf of its learners.

The Platform will serve as a central hub for the Publisher’s digital credentials, collecting achievement assertions from source systems, organizing the assertions into a CLR and publishing the standard format CLR record so each achievement is verifiable, manageable, and shareable online per the CLR standard implementation requirements.

Access to the CLR will be provided via mobile application (“Wallet”) for the learner to view, control, and securely share some or all of their achievements with others, such as employers, other education providers, and social media.

The Platform must be capable of importing and/or creating, hosting, managing, curating, and sharing and exporting CLR records in whole or in part under the learner’s control. The Platform will be integrated with the Publisher’s administrative data systems via published open integration standards. The Publisher may choose to make the Platform available to the learner after their enrollment or employment as applicable.
IMS CLR Roundtable: Learn & Lead

● Join us next time
  ○ How can CLR contribute to diversity and equity goals?
  ○ Date: November 2, 2020 at 11:30 ET
  ○ https://www.imsglobal.org/event/ims-clr-roundtable-open-public

● Feedback, Suggestions, Questions
  ○ https://forms.gle/bR4Soe4ReYy21FF4A