

Caliper

[Caliper](#) is an interoperability standard used to define a common language for labeling learning data and provide means for capturing, presenting, and conveying learning activities to centralized data stores in order to enable the analysis, visualization, and increased awareness of student learning behaviors. The IMLS-funded “Connecting Libraries with Institutional Learning Analytics for Student Success” project developed a profile, being certified for inclusion in the Caliper specification, to enable libraries to provide information to data stores for analysis. Libraries who wish to participate in campus or consortial learning analytics projects can provide data the level of specificity that meets their library’s, institution’s, and/or consortium’s values and needs.

ACTOR → ACTION → OBJECT

Caliper Events

A Caliper Event is a triple: an actor performs an action on an object. Each event is defined by an event profile. We created three initial events: LibraryUseEvent, LibraryResourceUseEvent, and LibraryParticipationEvent. Each event has its own specified “action” verbs and “object” vocabularies. Actors are inherited from Caliper.

LibraryUse

Describes use of a physical library space, whether contained in a library building or an ad hoc space used by the library for course instruction, an exhibit, etc.

LibraryResourceUse

Describes the use of a physical or electronic resource made available by the library

LibraryParticipation

Describes participation in an appointment, meeting, lecture, workshop, or any other library function, whether ad-hoc or scheduled or in any location

Connecting the Pipes

Drafting an Interoperability Standard to Connect Libraries with Institutional Learning Analytics for Student Success

Reflecting Institutional Privacy Values

The library profile within Caliper makes no assumptions about the level of identifiable information it carries between a source (a library) and a data store (within the library, on campus, at a consortial level, or beyond). Libraries who wish to integrate counts of library activity at an anonymous level can create events such as:

Person → Accessed → Resource

Or, with more detail, additional details could be included. Person could be more specific, such as by providing a URL to the individual or to the kind of Person (e.g., faculty, undergraduate, etc.). Resource can be specified, such as “journal” or “book” or “article”, with additional details provided as needed (e.g., ISSN; title, LC class and/or subclass; title, DOI, etc.). All of this data is provided through a JSON object that the library or a vendor product creates. Here, a non-specified Person was physically present in a Library space. In the figure, eventTime is a timestamp required by the Caliper specification for when the Caliper event was generated, not when the interaction being recorded took place. Events can be batched and sent after the interaction to help mask user identities.

```
{
  "@context": "http://purl.imsglobal.org/ctx/caliper/v1p2/LibraryProfile-extension",
  "id": "urn:uuid:fd245e24-d9fa-4384-8b0a-7d08d632e63f",
  "type": "LibraryUseEvent",
  "profile": "LibraryProfile",
  "actor": {
    "id": "http://purl.imsglobal.org/caliper/Person",
    "type": "Person"
  },
  "action": "Used",
  "object": {
    "id": "http://purl.imsglobal.org/caliper/LibrarySpace",
    "type": "LibrarySpace"
  },
  "eventTime": "2021-11-15T10:15:00.000Z"
}
```

Ken Varnum | varnum@umich.edu | University of Michigan
Megan Oakleaf | moakleaf@syr.edu | Syracuse University
ARL Library Assessment Conference 2020