What is xAPI?

A brief overview of xAPI (Experience API or Tin Can API), how xAPI is different from SCORM, and how to get started with xAPI.
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Experience API (also xAPI or Tin Can API) is a learning technology interoperability specification that makes it easier for learning technology products to communicate and work with one another. This means you can “plug and play” xAPI-implementing content, platforms, and applications into your Learning Record Store (LRS) as easily as plugging USB devices into your computer.

xAPI is different from previous interoperability specifications, such as SCORM, because it’s not limited to only tracking courses and completions. With xAPI, you can track anything the learner does—whether that’s more innovative learning experiences (such as games, videos, or mobile apps) or job tasks that put learning into practice. Bring data from your LMS, apps, social platforms, classroom training, and real-world tasks together in one system to create comprehensive reports.

Unlike SCORM, xAPI doesn’t require you to package content into ZIP files, as you can simply host content on a server and access it via Single Sign On (SSO). Of course, you still have the option to publish and launch xAPI content packages as needed.

Components of an xAPI Implementation

*For any xAPI implementation, these five things need to happen:*

- **The learner has a learning experience**
- **Which is tracked by a learning record provider**
- **Which creates and sends records to the learning record store**
- **Which stores these records about the learner**
- **A learning record consumer can access the data to acquire learning records**

In most implementations, multiple learner actions are tracked by multiple applications, and data may be used in a few ways. In all cases, there’s an LRS at the center receiving, storing, and returning the data as required.

**SOURCE:** https://github.com/adlnet/xAPI-Spec/blob/master/xAPIDataFlow.jpg
xAPI Interaction Statements

These learning records are transmitted in the form of statements about a particular learner interaction. You can include any data you need in an xAPI statement, but the core of all statements is in the format of **actor+verb+object**, or "I did something."

That's why all xAPI statements have the following key information:

1) When the interaction took place?  
2) The learner’s unique ID?  
3) What the learner did?  
4) What the learner did it to?

![Example xAPI Statement](attachment:image.png)
What does xAPI mean for my organization?

Many organizations use xAPI to connect learning technology products to build learning ecosystems. When applications already support xAPI, integrations can be as simple as plug and play. And for applications that don’t yet support xAPI, Watershed’s Data Conversion Engine and integration services can help prevent any hurdles.

Once your learning systems are integrated and all your learning records are stored in one place, your data is perfectly primed for learning analytics. You can start exploring your data to get a clear picture of what’s happening in your organization.

Evaluate learning programs and explore the reasons behind the most popular or successful training. Once you’re armed with a better understanding of these programs, you can begin to positively shape and enhance your learners’ future experiences.

What's an LRS?

A Learning Record Store (LRS) stores records about learning. Within xAPI, there are rules that an LRS must follow to ensure applications send and retrieve records in the same way—regardless of the LRS being used.

Watershed LRS is an xAPI-conformant LRS. It’s also a learning analytics platform that presents your data for learning analytics and evaluation. As such, it covers both the data storage and data usage components of your xAPI implementation.

How do I get started with xAPI?

Remember the five components we listed above? To get started with xAPI you’ll need at least one of each. Here’s your checklist:

1) Identify a pilot group of learners.
2) Identify a learning activity you can track.
3) Use a Watershed Certified xAPI Data Source to capture data about that experience.
4) Set up an LRS to store your data.
5) Use the data to evaluate and improve the learning activity.

Now that you understand the basics of xAPI, read Part 2 of this eGuide series to learn how to develop your own xAPI implementation.
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Andrew is a leading thinker in Evidence Driven Learning Strategy and Learning Systems Interoperability. He has helped organizations develop learning strategies based on evidence and evaluation, working with vendors to get at data from the products those organizations use.

One of the authors of the Tin Can/Experience API (xAPI) specification and much of the content on tincanapi.com, Andrew has delivered numerous presentations, webinars and training sessions internationally. Andrew is well recognized as a reliable expert in the xAPI world.