### XAPI - THE CASE STUDIES

e-Learning Authoring tools Learning Management System

MORE THAN 2,500 ORGANISATIONS HAVE DOWNLOADED AND INSTALLED THE OPEN SOURCE VERSION OF LEARNING LOCKER.

With more than 150 applications directly created to work with xAPI there is no doubt that the adoption of the specification is becoming mainstream throughout businesses, education and government organisations. Here we highlight a few of the use cases we've been lucky enough to work on over the previous two years. We aren't able to name the organisations using xAPI and Learning Locker in every case but rest assured, you will know their names!

### USING XAPI TO ENABLE GAMIFICATION THROUGHOUT THE LEARNING PROCESS

We worked with a major energy provider to implement a new 'gamification' system. The aim of the project was to incentivise sales personnel to engage with further training and then benchmark their sales performance back against their participation in training. Does training make a difference?

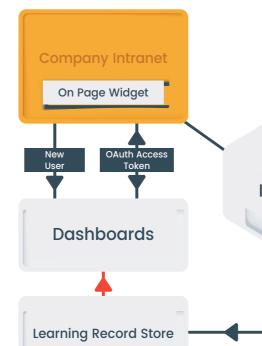
The audience was competitive by nature and responded well to game-like challenges. Product knowledge was spread amongst multiple systems (LMS, Intranet, eLearning content, Apps and more), meaning the gamification 'engine' would need to take account of user engagement from all of the available systems.

HT2 Labs implemented Learning Locker to become the central point of data warehousing between the systems and worked with the client and its partners to make Activity Providervs export xAPI data based on usage. HT2 Labs then devised a 'gamification engine' that would enable the customer to create challenges based on paths of content to be completed. As data flowed into the LRS these challenges would then be automatically 'completed' based on user interaction. Successful completion of a challenge would lead to 'digital badge' being issued to the user.

To show results back to users, a series of 'widgets' were constructed including leaderboards and performance graphs. These widgets were integrated with the existing CMS such that administrators could insert gamification elements to highlight performance on any given page. Finally, a series of dashboards were built for the customer to inspect the performance of its distributors, including the ability to benchmark geographic areas against each other.



Solution

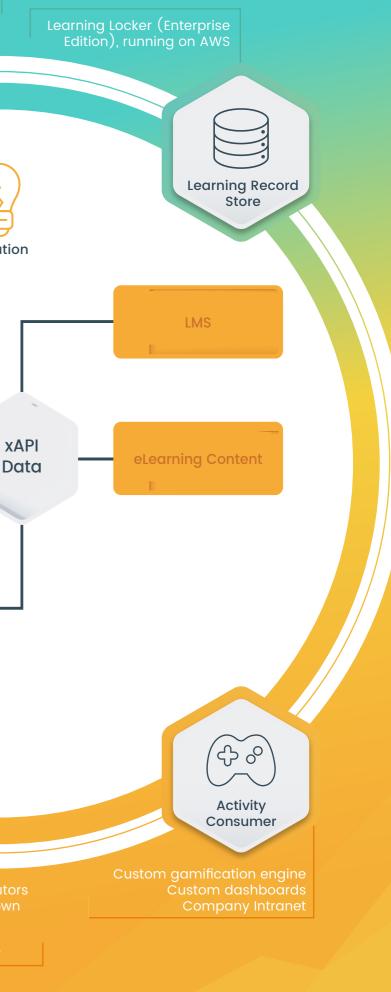


### Solution

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need to foster greater engagement amongst distribute with available product knowledge. Research had show that those distributors whom engaged more with earning materials went on to drive a higher level of overall sales. But how could they drive engagement?



Jisc

### JISC: OPEN LEARNING ANALYTICS ARCHITECTURE

In early 2014, Jisc set about creating a set of online tools for UK universities and colleges to better understand their learner data and make more informed decisions so that they might increase student satisfaction, retention, and attainment. Called the 'Open Learning Analytics Framework', Jisc would make the new tools available to any UK university, free of charge.



Research suggests that the use of Learning Analytics by tutors and administrators in Higher Education can improve learning outcomes for students. This includes benefits drawn from 'Student Success' tools that accurately predict whether or not a student is at risk of failure, as well as deeper analysis of learning content and programmes. But the implementation cost of these tools has been a real turn-off for universities looking to engage; there are significant barriers to entry in time and cost. Jisc created a £2m project with the aim of providing a basic set of learning analytics tools, capable of drawing data from a range of sources, at no initial cost to the university.

Jisc's solution was to be predicated on 'standardising' the way in which universities collect activity data about their students. Jisc selected the xAPI as the only viable option currently available in education to fulfill this remit. As a result of their decision, Jisc went on to procure a suitable Learning Record Store: Learning Locker was selected due to its Open Source nature and proven ability to scale.

Working as part of a consortium of vendors, HT2 Labs has implemented Learning Locker for Jisc and advanced its functionality significantly to include additional security features and to expand the record store into a Data Warehouse, capable of storing student data as well as xAPI.

Additionally, HT2 Labs worked with partners to create best-in-class integrations with Learning Management Systems like Moodle and Blackboard. Thanks to this work, LMSs that represent more than 90% of the global install base for Higher Education now directly export their data to xAPI.

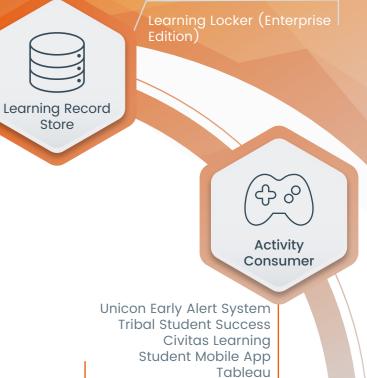
Predictive tools like Unicon's Early Alert System and Tribal's Student Success Planner are now capable of taking their data directly from Learning Locker. Jisc have succeeded in creating an Open Learning Analytics service, to which universities can be quickly subscribed and start sending in data without the need for any coding or complex integration time. **Activity Provider** 

Learning Management Systems

Library Data

Attendance Systems







Today, Jisc is focussing on creating the UK's national learning record warehouse, capable of storing activity data for millions of students with billions of xAPI statements stored. The eventual aim of this data collection is to offer national benchmarking services to UK universities; allowing tutors and administrators to assess the quality of their learning offering when compared to the national average for like programmes.





went suggested



Curatr is capable of exporting all learning activity data directly to an LRS using the xAPI. Here data is stored globally for V&B in a format that can then be used in more complex analysis and reporting. By blending this data with insights as to sales performance taken from SAP (the global ERP system for V&B), the company was able to demonstrate clear links between the uptake of training and subsequent regional performance increases. The following figures demonstrate just part of the Return on Investment seen.

- Average Transaction Value is +32% since rolling out 'More Excellence in Selling' (which has a focus on upselling) to UK and USA
- Since rolling out the basic 'Excellence in Selling' in Iberia in May 2015, sales are +15%
- In Japan, 'Porcelain Product Knowledge' was rolled out in June 2015. Sales in this product category are +19% since that time

# City Guilds

CITY & GUILDS TECHBAC® : FROM EDUCATION TO EMPLOYMENT USING THE XAPI

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This project won Best in Show at DevLearn 2015 for its ingenious use of xAPI to connect a series of learning systems together seamlessly.



The different systems are can export to their own linked together using the tailored CV, customising Experience API (xAPI). Using this approach, present City & Guilds are able to store learner's progress in a Learning Record Tutors track progress Store (LRS), unifying all of the systems into a single record of progress helps predict areas of risk and

Learning Locker to power their solution, Tutors recognise the allowing TechBac® to scale upwards of in each of the seven skill 50,000 learners with areas by awarding a peaks usage throughout the Mozilla standard makes year. Learning Locker's accreditation evidenceadvanced API is used based and portable. to process and display Learners can export their data to both learners and Open Badges to their CV their tutors, as well as and the wider web as proof reporting back usage to of their achievements. City & Guilds for analysis.

Learners visualise their achieved using the xAPI work on the City & standard; the first solution Guilds Skills Wheel; a to combine both xAPI personalised dashboard and Open Badges into a of progress which Learners production environment.

the information they back to potential employers.

Activity Provider

**Custom Learning Portal** 

3rd party applications

**CV** Builder

Solution

through the Performance Optimiser; a system which achievement. to the Learner's progress and allows them to City & Guilds selected intervene at the right time.

> Learner's competence of intensive Mozilla Open Badge. The

> > This portability





© HT2Labs

Moodle Blackboard **Custom Learning Portal** 

Activity Provider

### Solution

Vital aims to identify how students of higher education across Europe learn online by taking a bottom-up approach learning analytics approach: Mapping and feeding back to the students and their lecturers the existing learning patterns in 4 different types of online language learning and easy-to-use dashboards for non-specialist users are a key part of this project to ensure both students and their tutors:

• For students so they can not only understand their own data about how they learn online, but also to be able to compare their profiles to those of their peers

• For educators to get dynamic and real-time overviews of how their students are progressing, who might be at risk of dropping out or of failing for the course, and which parts of the courses cause difficulties / require more feedback

Solution

Despite the fact that many HE institutions have embraced elearning and other learning technology solutions, the Vital consortium has found that there is still no way for either the learning institution or the students themselves to form a clear picture of their online learning habits.

## VITAL

VISUALISATION TOOLS AND ANALYTICS FOR ONLINE LANGUAGE LEARNING (VITAL)

A collaboration between 3 universities across Europe and HT2 Labs, Vital is a European Funded initiative founded with the aim of allowing students and teachers to better benchmark language learning across the continent.

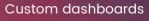
Learning Locker (Open Source Edition)

Learning Record Store





Activity Consumer



## **InterContinental Hotels Group**

INTERCONTINENTAL **HOTELS GROUP:** MEASURING THE VALUE OF SOCIAL LEARNING WITH XAPI

InterContinental Hotels Group (IHG) commissioned a new Massive Open Online Course (MOOC) to help its first level leaders to have better quality feedback conversations with their reports. The course would run over a 5-week period and encourage learners to contribute back to the online classroom, as well as consuming learning content. The aim was to actually change the way in which leaders gave and received feedback in the workplace, on a global scale.

collecting evidence across systems using Learning Locker and the xAPI. With this source of data HT2 Labs' data scientists were able to do something really clever: They were able to analyse conversations retrospectively to see how many people were actually doing something different in the workplace by the end of the 5-week experience. The results were ground-breaking.

Whilst the MOOC was

going on, HT2 Labs was

Using an approach to measuring the quality of online conversation in a learning environment known as Cognitive Presence, HT2 Labs were able to map the submissions at the 'end how they could change of week assignment' to and 12% of participants assess the quality of the had actually tried a new reflective conversations behaviour. A remarkable occurring on a 3-point Scale.

♦ At level 1, learners simply were expressing what they had watched, read

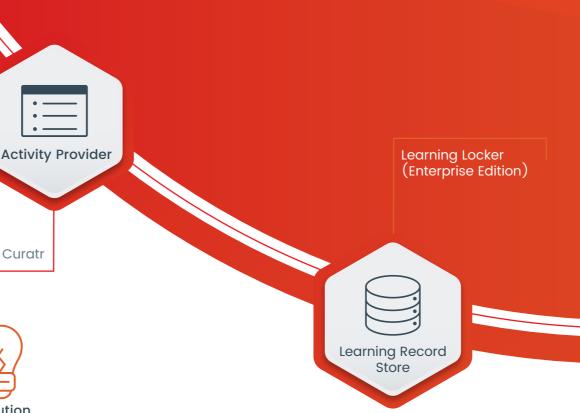
or understood during the weeks learning activities ♦ At level 2 they were

Curatr

Solution

- expressing a desire to change; that they might try to apply some of their new insights at some future point ♦ And at level 3, they
- were reporting back on how they tried to do something new, reflecting on how it went and on how they might do things next time as they try to form a new habit of better conversations.

Within 4 weeks of the social experience starting, IHG could show that 50% of participants had seen insight into the impact a social learning experience has had on individuals and, collectively, the organisation.







### THANKS FOR READING

xAPI's rise to prominence in its first 4 years has never really been seen before in Learning Technology (it took SCORM 10 years!). Those of us in the know recognise the sea-change that is upon us. Learning Technology and training in general has always been under pressure to prove its value to the organisation. We have no excuses not to measure everything that we do and xAPI gives us a method to start doing just that.

xAPI won't help you to prove the value of something that has no value, quite the opposite in fact. But it will help you showcase the difference learning can make to individuals and your organisation as a whole. For most of us, proving such things will be a tricky road. But immediate value can be had from connecting systems together - creating that single source of record that will form your basis for analysis in years to come. And we cannot emphasise enough the importance of starting today; the quality of future analysis will be predicated on the quality of the data you are collecting today.

Standardising your approach to this systematic collection of data should be top of your agenda as a Learning Technology Manager. And with these case studies to inspire you, you should be in a good place to get started.

HT2 Labs is dedicated to helping organisations like yours improve lives through learning technology.

To talk with an advisor about how to get started with xAPI, or to kick up a free trial of Learning Locker,

For more resources, including our free MOOC - An Introduction to the xAPI - which has helped thousands of Learning Technology Managers like yourself get to grips with xAPI for the first time, check out the resources section of our website, at HT2labs.com/resources.

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