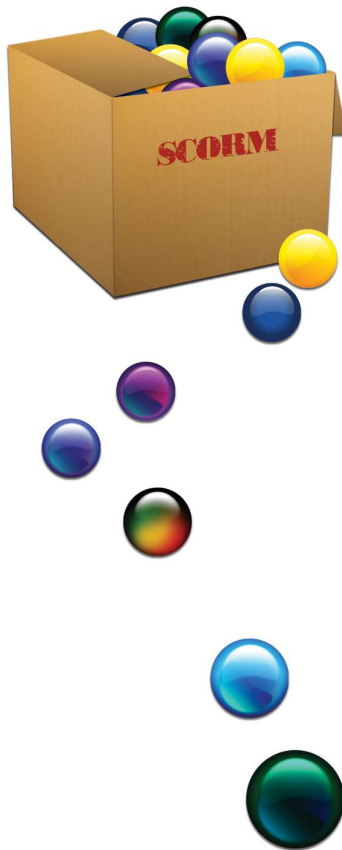


Break Out of the Box!

A presentation about xAPI by Katherine Hinchey



The image to the left is a metaphor. The box represents SCORM (shareable content object reference model) and the orbs represent learning activities. It's my argument that SCORM was—and is—useful to solve some problems, but now it stifles Learning & Development departments from providing engaging and modern learning activities to their organizations for staff development.

What is the box? And where are we heading?

So, what is SCORM, and what is xAPI? And what am I doing to encourage my organization to adopt xAPI? In this presentation, I'll briefly discuss the problem Learning & Development departments are facing, and how we got into this situation. I'll then talk a little bit about how xAPI is a solution to the problem. And lastly, I'll show you a workshop I'm creating for managers, to help them get up-to-speed on xAPI so they can be better prepared to make decisions about implementing it in our organization.

Current issues

Workplace learning faces two problems.

Problem #1: It's usually boring

It's usually boring and doesn't actually do much to encourage learning, memory, or engagement, or to solve a performance gap problem.

Has your employer ever asked you to learn something by reading a slide presentation, and you found yourself wondering where the "learning" in e-learning went? And maybe you harboured a suspicion that you are doing it only so that your employer has a record that you've complied with a rule or law?

Problem #2: It shortchanges us

The e-learning provided by your organization doesn't reflect the totality of all the learning their workers do.

A recent poll found that almost 75% of Americans purposefully engaged in a learning activity within the previous year, doing things like reading publications, participating in clubs and professional organizations, attending conferences, and taking classes.

But organizations don't have records of all that learning within their workforce. And employees need a way to demonstrate to current and future employers the learning they are engaged in with formal and informal learning activities.

How did we get here?

Both problems have the same root cause, in a way, and here's where we will talk about SCORM. SCORM solved a different problem, and it may still be important today, but it's also holding us back.

We started with computer-based training (CBT)

When it became common for most office-based workers to have a computer on their desk, organizations began providing computer-based training. They delivered it to their workers on floppies, diskettes, and later, CDs.

They then decided to organize and store their e-learning content in virtual learning environments, or VLEs. (Another name for VLEs is learning management systems, or LMSs.) The companies that made VLEs all used different standards, so organizations sometimes had to create multiple versions of the same e-learning courses just to fit their various VLEs.



In 2001, a single set of standards was adopted for use in most VLEs, and this standard was called SCORM.

We then moved to web-based training (WBT)

One rule in the SCORM standard is that e-learning must play within a web browser. Computer-based training became web-based training. Sometimes it was organized with a list of contents on the left, sometimes it looked just like PowerPoint slides, and sometimes it played like a video, but learning was trapped within the browser.



And time marched on!

Remember, SCORM was released in 2001, less than 2 years after standard office computers were wifi-enabled. Other technologies changed the way we communicate and share:

- 2002: Friendster, Moodle, and RSS
- 2003: Skype and Blogger
- 2005: YouTube
- 2006: Twitter
- 2010: Pinterest, followed by LinkedIn... and the iPhone

That brings us to 2010. SCORM was 10 years old, and the first call went out for ideas about what to create next because we needed more.

What can you do with xAPI?

The call was answered with xAPI. We'll look at how xAPI works in a moment, but first let's look at a few examples of the type of learning experiences your organization could offer for staff development if they adopt xAPI.

Mobile learning



Your organization could design apps for you to use on your mobile devices, or your learning experiences could involve multiple devices. For example, perhaps you would use an app on your phone while taking a physical tour of a facility, using your smartphone's camera, GPS, and push notifications to guide you, to take notes, and to provide evidence of learning. Perhaps afterwards, you would complete the activity on your computer when you return to your desk.

Performance support



Your organization could include performance supports. For example, after learning a task, perhaps you are emailed additional reminders, videos, or checklists when you undertake the new task for the first few times to help you remember and to reinforce the learning.

Mentorship



Perhaps your organization could offer more structured mentorships and apprenticeships, prompting the mentor with reminders, collecting feedback and data from the mentor and learner about key activities, and then monitoring subsequent performance so that instructional designers and managers can identify exactly which mentoring activities provided the desired performance outcomes.

Learning analytics



Not only could analytics help improve learning offerings by identifying what truly improves performance, but by drawing on a broad array of data from multiple systems your organization could provide nudges to learners, dashboard information to managers, and reports to decision-makers.

Digital badges



Perhaps best of all, the learner could carry a record of their learning experiences with them. They could share their record with other employers as an enhanced resume, and organizations could use the records to identify experts within their workforce. The record could include university courses and qualifications, formal learning provided by employers, and all of the informal learning most people pursue for work or pleasure every year.

How does it work?

The reason organizations don't offer these types of learning experiences now is because there is a lack of interoperability. That is, an app, a book, wearable technology, videos, virtual learning environments, simulations, and social learning systems can't communicate with the VLE, to let it know which learning experiences you've undertaken. And the VLE can't communicate with performance support systems or really robust analytic programs.

Definition

An *API*—application programming interface—allows two programs to communicate with each other. *xAPI* is short for Experience API. It is an API for learning experiences.

Activity statements

In a way, xAPI is an agreement that we'll all use a standard format for documenting learning activities. It is documented in an activity statement. Each activity statement has an actor, a verb, and an object.

The group that designed xAPI uses an example of hang-gliding: Sally Glider experienced solo hang-gliding:

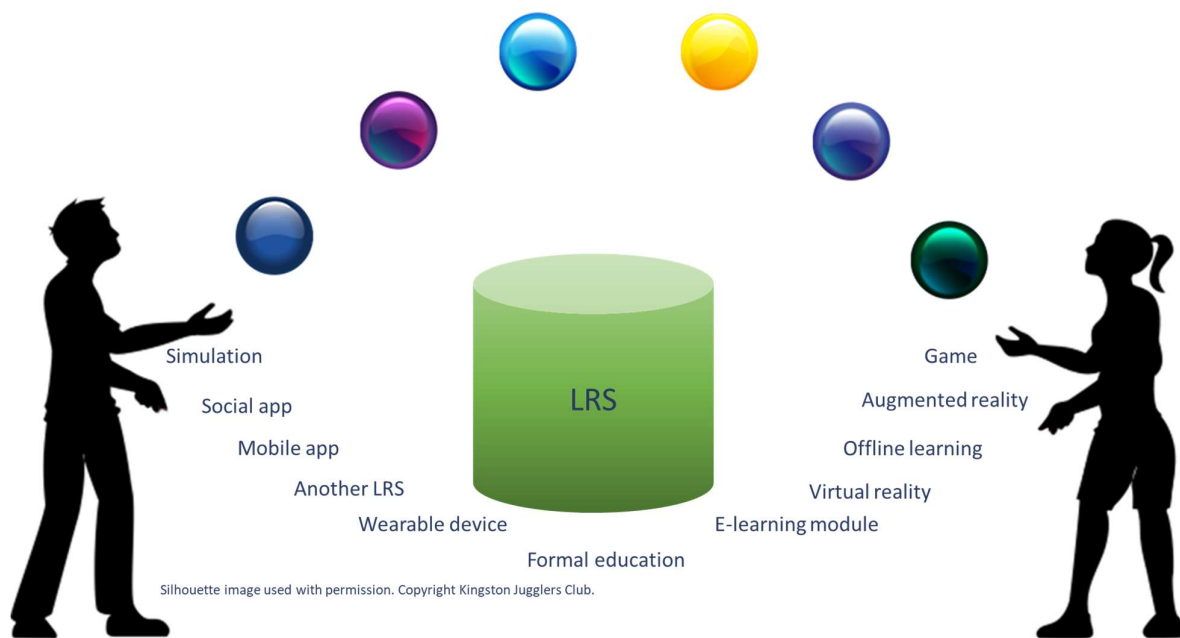
Actor	Sally
+	+
Verb	Experienced
+	+
Object	Solo hang-gliding

What you might notice is that the statements follow a common English sentence structure, so you can make sense of it just looking at the statement itself:

Actor	Sally	{
+	+	"actor": {
		"name": "Sally Glider",
		"mbox": "mailto:sally@example.com"
		},
Verb	Experienced	"verb": {
+	+	"id": "http://adlnet.gov/expapi/verbs/experienced",
		"display": { "en-US": "experienced" } }
		},
Object	Solo hang-gliding	"object": {
		"id": "http://example.com/activities/solo-hang-gliding",
		"definition": {
		"name": { "en-US": "Solo Hang Gliding" } }

Sharing data

Learning record stores, or LRSs, store activity statements. Systems (such as a simulation, game, social app, and so on) can *send* an activity statement to one or more LRS, and systems can *get* data from one or more LRS. And, LRSs can share data with each other. The systems become *interoperable*—they can work together and share data about learning experiences, which means learning is no longer confined to a browser.

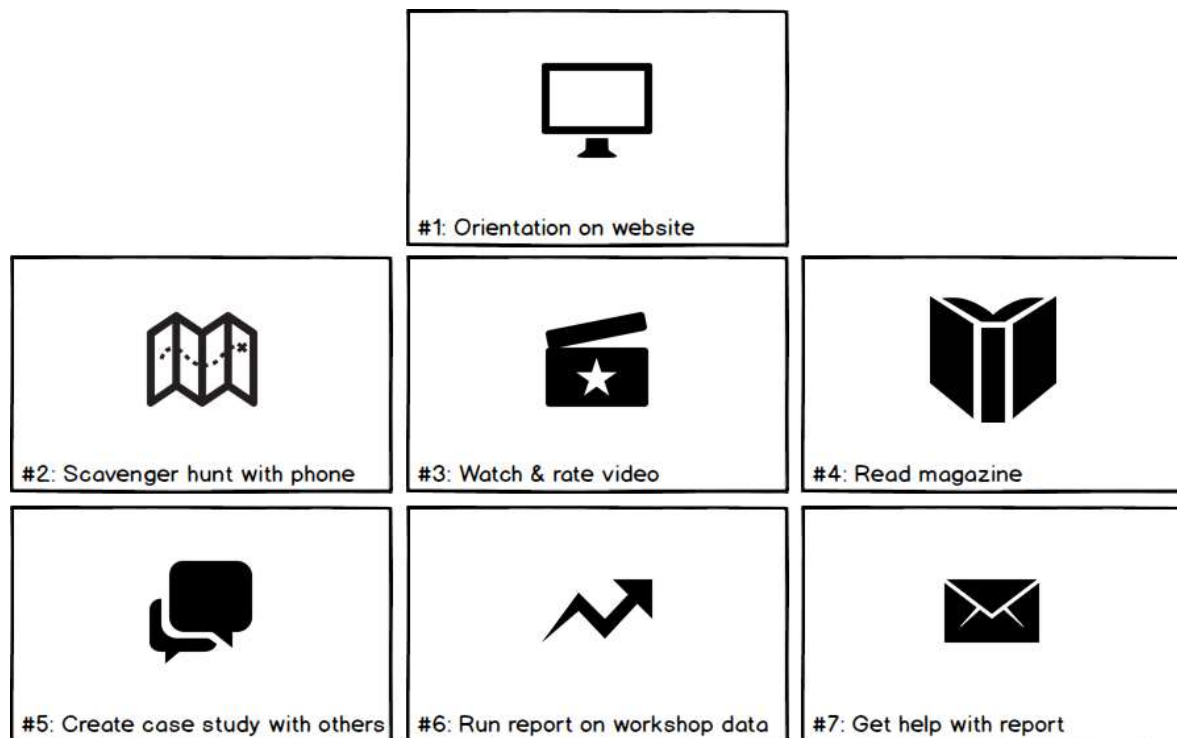


A workshop for managers

Adopting xAPI is a big decision for any organization, so I am creating a multi-day, multi-modal workshop for managers and decision-makers, giving them a chance to experience and appreciate the benefits of xAPI so they can make good choices.

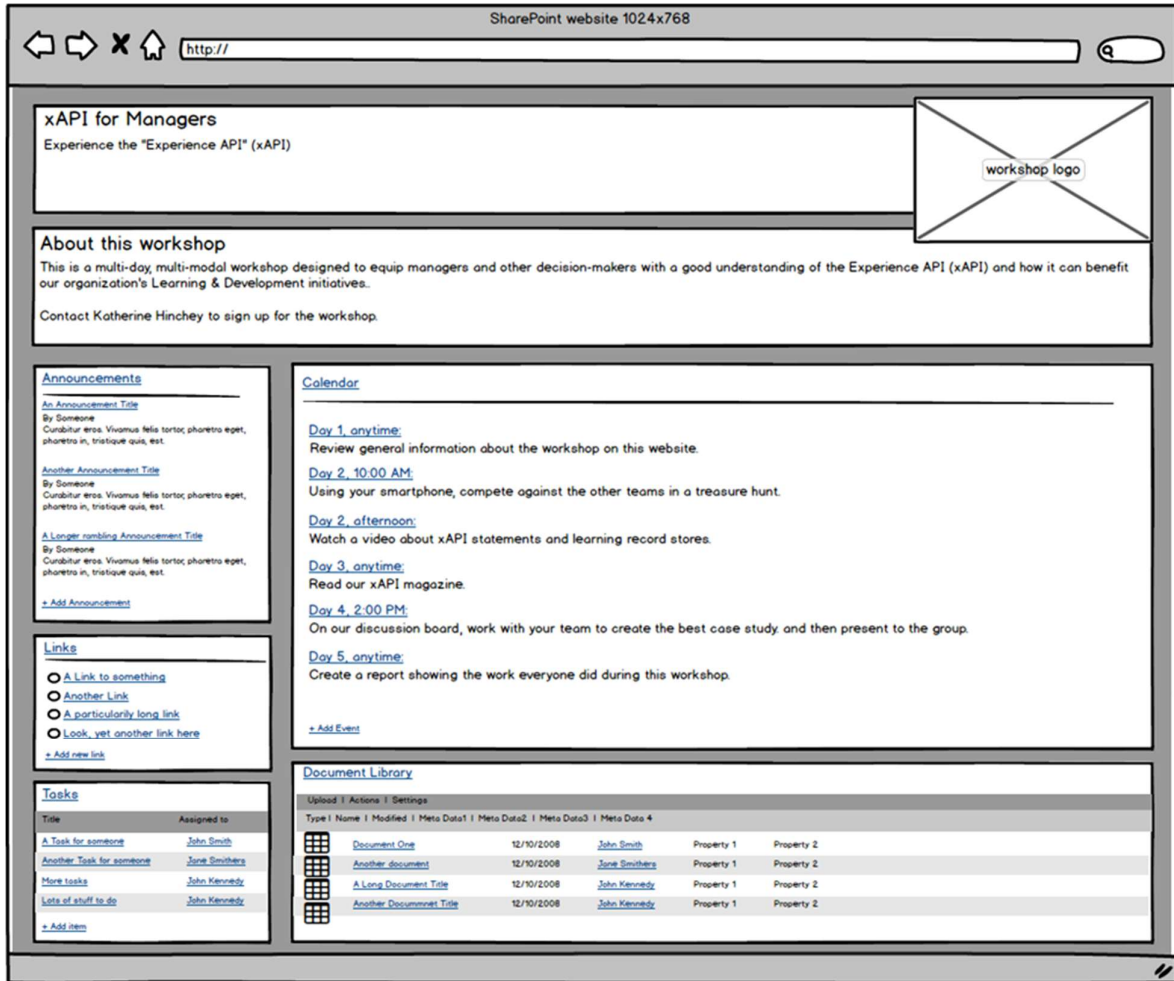
Workshop flow

The workshop is still in the design phase. It includes several different types of activities and technologies to show a few of the options available to Learning and Development teams if xAPI is adopted.



#1 Orientation.

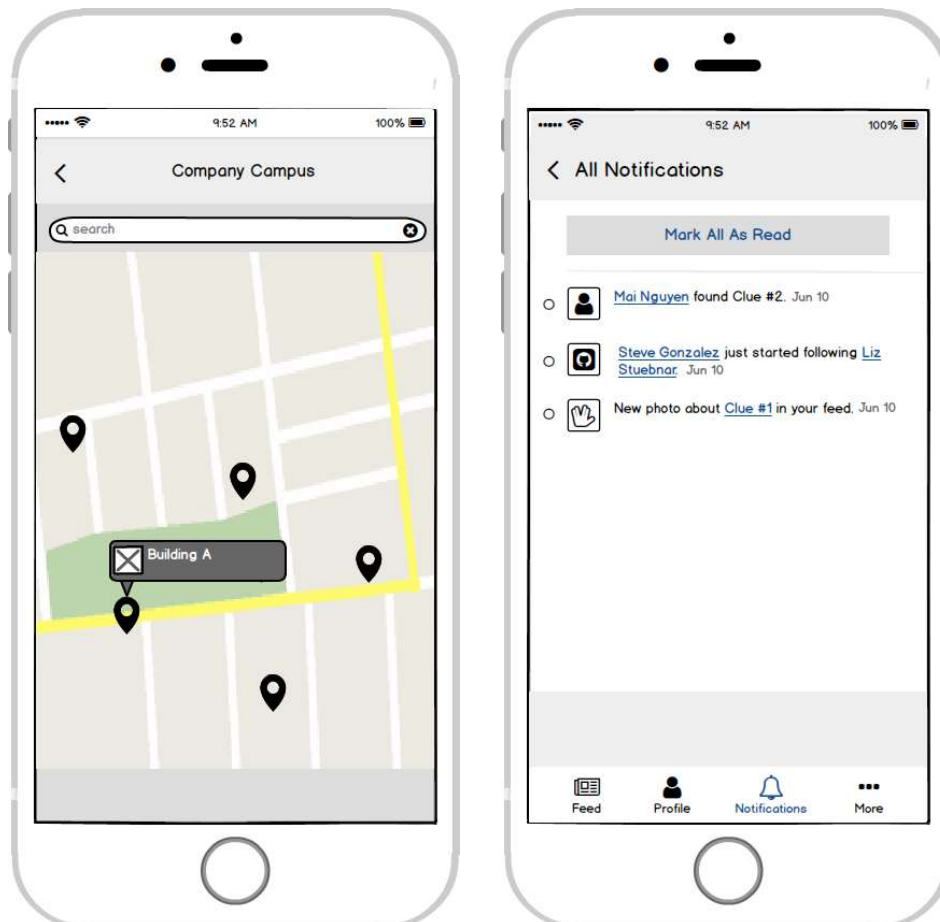
First, the managers review general information about how the workshop will work. I've envisioned this central, workshop-related website to be in SharePoint because that is common in my context.



#2 Scavenger hunt

The next day has a scheduled activity. It is a treasure hunt. The managers are grouped into small teams, and they use their smartphones with the game. The app shows them a map of the corporate campus with the location of the first clue. Each clue tells them something about xAPI and also a puzzle that leads them to the next clue. The GPS feature shows where they are on the map, and they use the notifications feature to share progress with the competing teams.

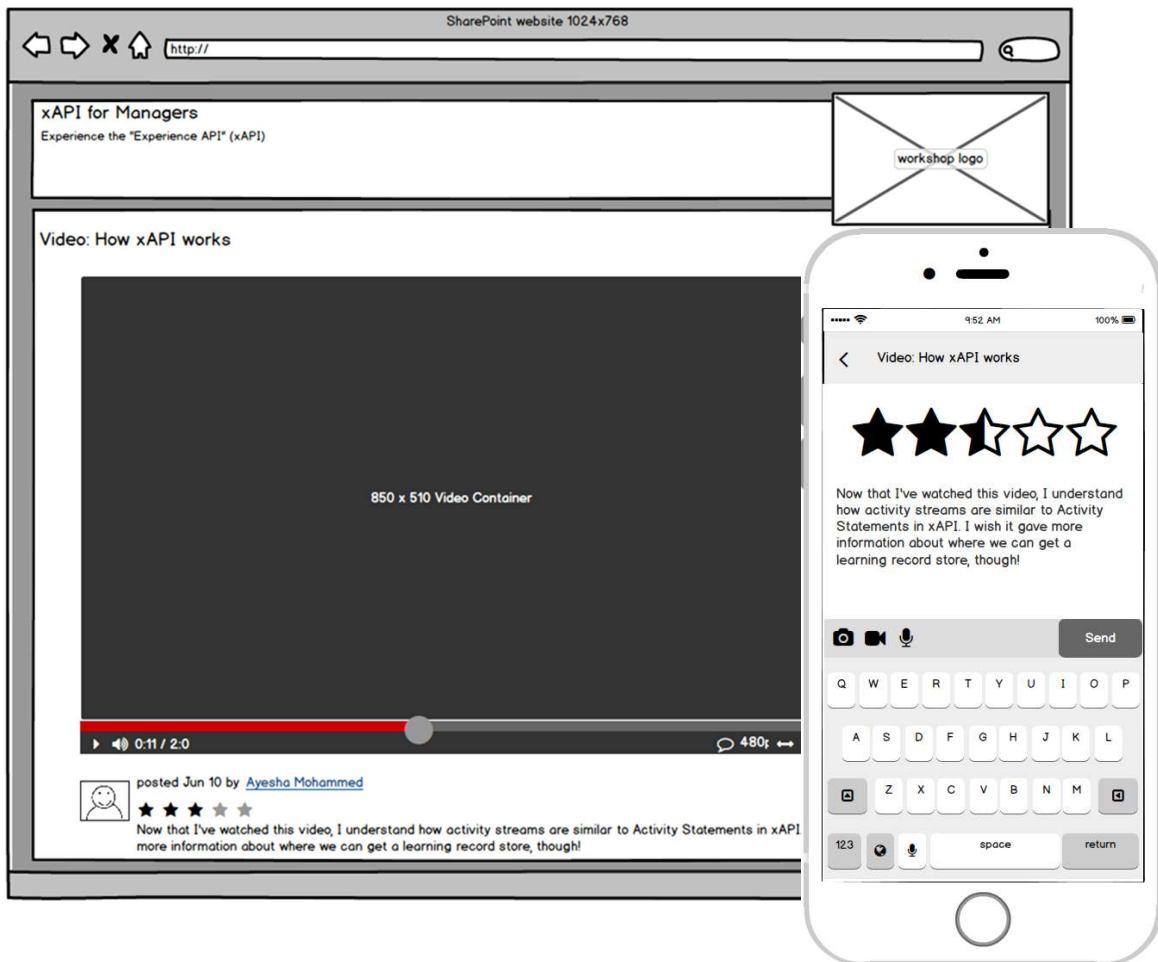
Data about their progress in the treasure hunt is also captured as part of the xAPI demo, which they will see later in the week.



#3 Video

With the treasure hunt over, they use their smartphones or return to their desks to watch a video. The video starts by showing the similarities between the notifications on their phones during the treasure hunt and the format used in xAPI statements. It then discusses the details of xAPI statements.

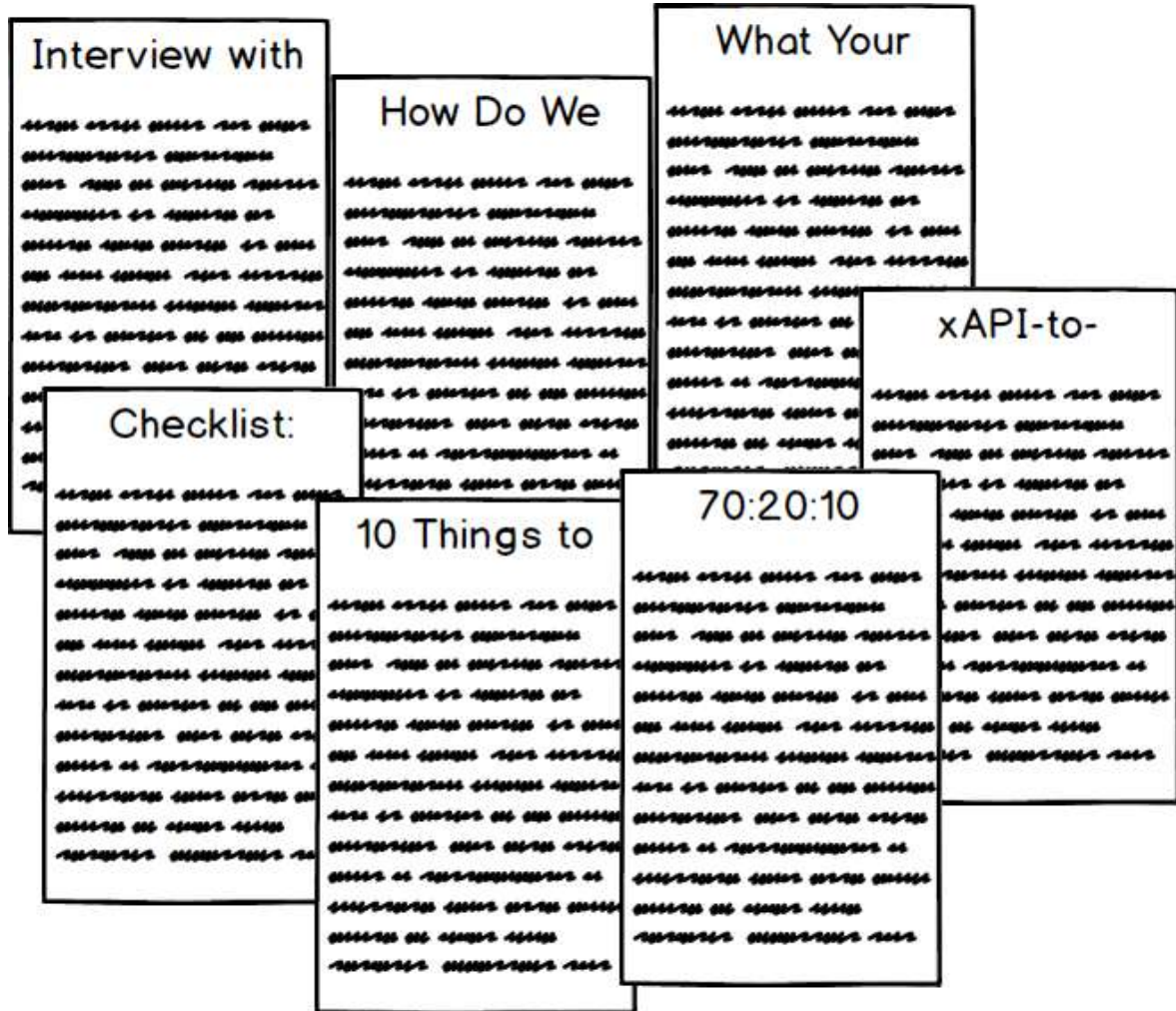
At the end of the video, they add feedback comments and rate the video. The rating becomes more learning data.



#4 Reading

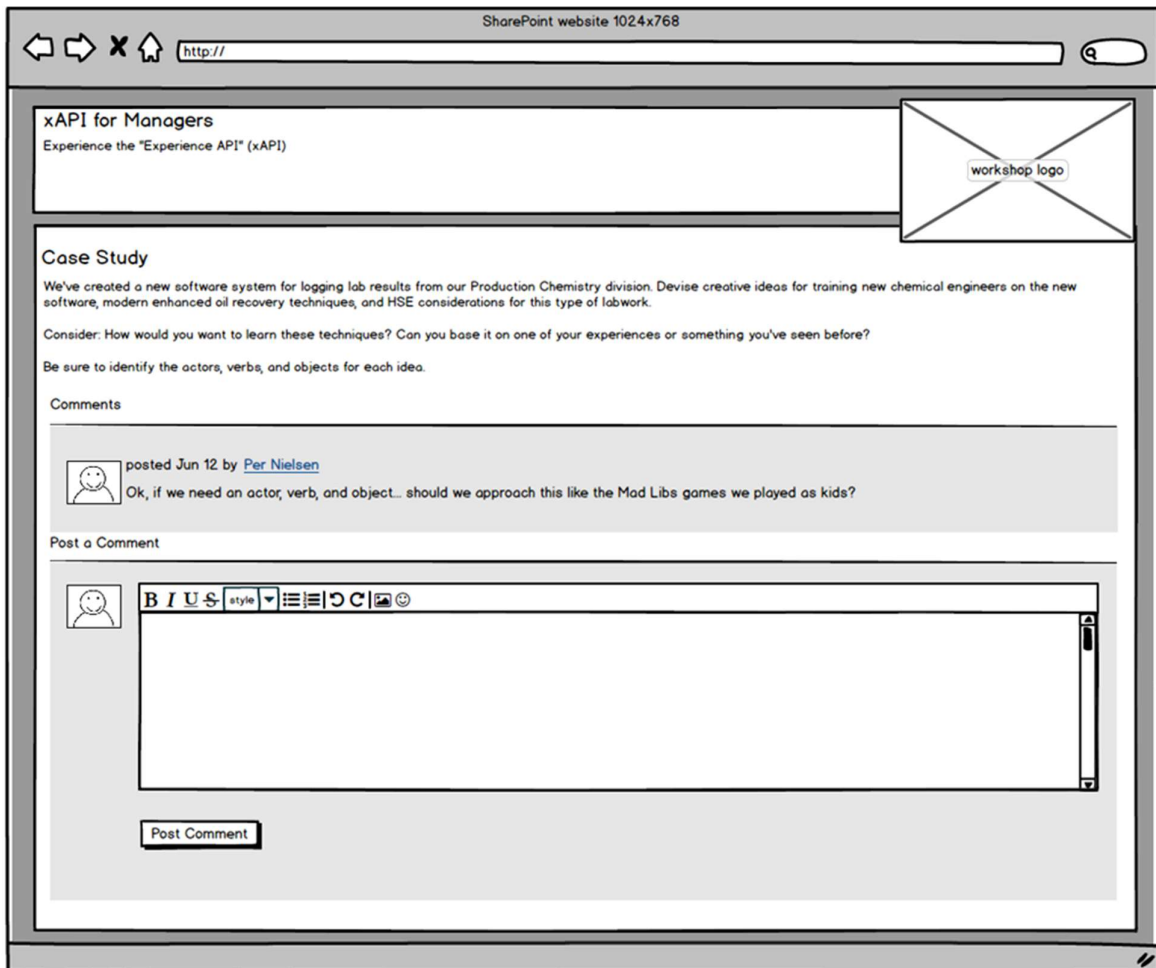
At their leisure, they then download and read offline a magazine with “service journalism”-styled articles about xAPI.

More data is collected.



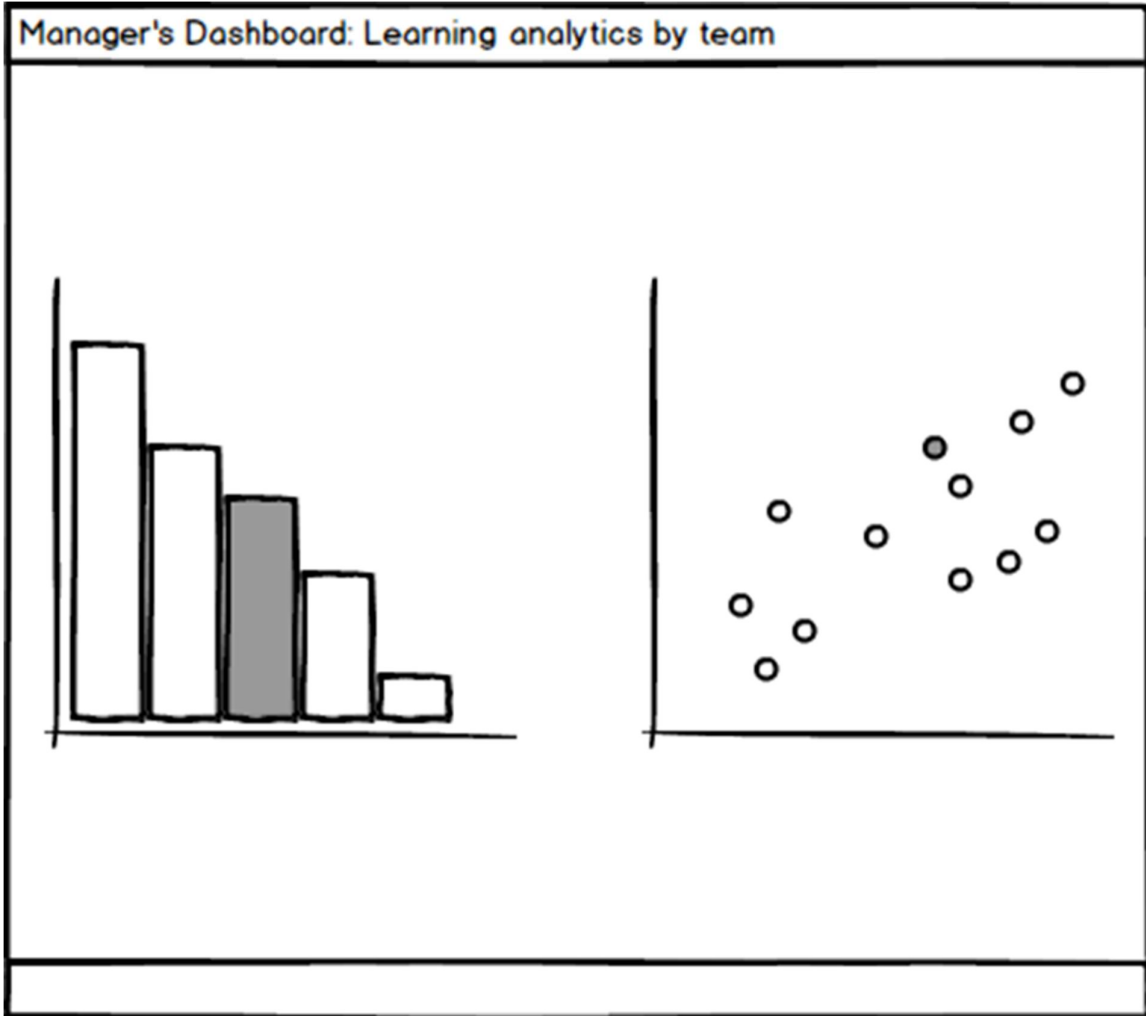
#5 Case study group work

On the fourth day, they participate on a discussion forum, working in teams to devise creative ways to use xAPI with the very flexible activity statement format.




#6 Reports

On the last day, they use a manager's dashboard to see the ways they can slice-and-dice the learning data that was captured during their workshop. But, they are given no instructions on how to use the dashboard....



#7 Performance support

On their first use, the system automatically sends them performance support, instead. They get an email welcoming them to the dashboard and giving them tips about how to use it.

Tips for using the Manager's Dashboard 

To: (email address)

Jan.Kowalczyk@company.com

From: (email address)

xAPIWorkshop@company.com

Note:

It looks like you are using the Manager's Dashboard for the first time.

Remember, the analytics available to you depend on your position within the organization. A department supervisor can see data about their department; a division manager can see data about each department in their division or an aggregate of all data in their division.

Check out [the wiki](#) for step-by-step guidance.

Next steps

That brings me to the end. My next step is to encourage further development of this workshop, which means—because we haven't adopted xAPI yet—turning the first part of this presentation into an e-learning module that's viewable in a browser!

