

# BYOD: xAPI Implementation for **Beginners**

**Jeff Batt**

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13 Courses | 60,000+ Students



PLURALSIGHT

7 Courses | 1 million + views





DEVLEARN<sup>SM</sup>

# Agenda

## Morning Part 1

Getting to Know xAPI

- Overview of xAPI
- Parts of a statement
- Personalization Overview
- Statement format
- xPI strategy document
- Out of the box xAPI

*Folder: 01\_01*

## Morning Part 2

Structuring/Sending Statements

- Creating and statement formatting
- Extensions
- Adjusting the statement
- xAPI wrapper
- Sending a statement

*Folder: 01\_02*

## Afternoon Part 1

LRSs & Standard Authoring Tools

- LRS overview
- Storyline & xAPI
- Captivate & xAPI
- LD statement builder
- LRS data
- Watershed
- Veracity

*Folder: 02\_01*

## Afternoon Part 2

Personalizing Learning w/ xAPI

- Learning personalization
- Querying the LRS
- Storing the data
- Adjusting the course data
- Video & xAPI
- xAPI templates

*Folder: 02\_02*



# Quick xAPI Overview



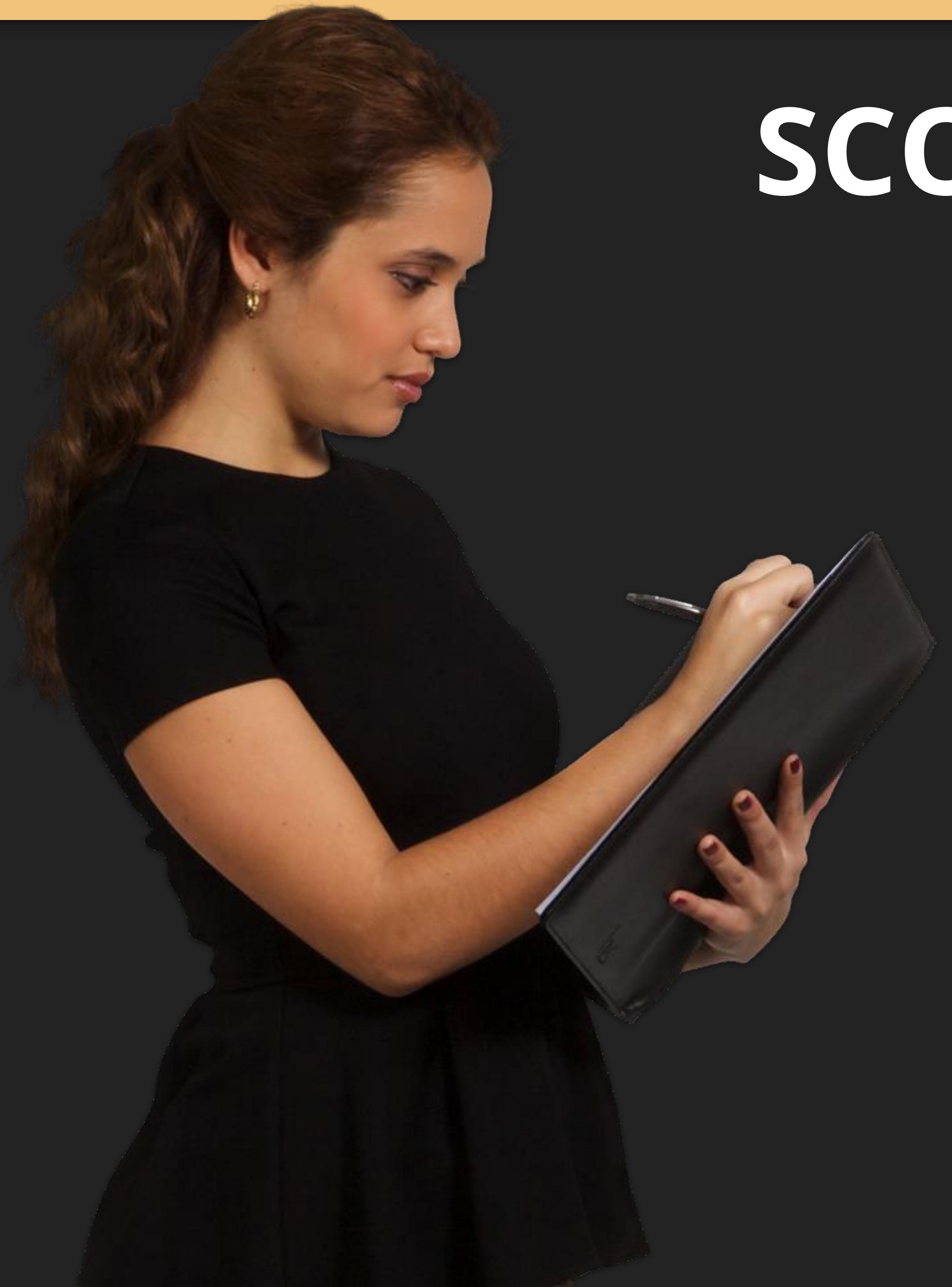
# Differences

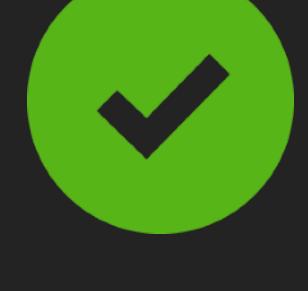


vs



# SCORM



-  Start
-  In progress
-  Completion
-  Quiz

Does that track **ALL**  
types of **learning**?

## LEARNING IS HAPPENING EVERYWHERE.

PEOPLE LEARN IN MANY PLACES,  
DOING MANY THINGS.



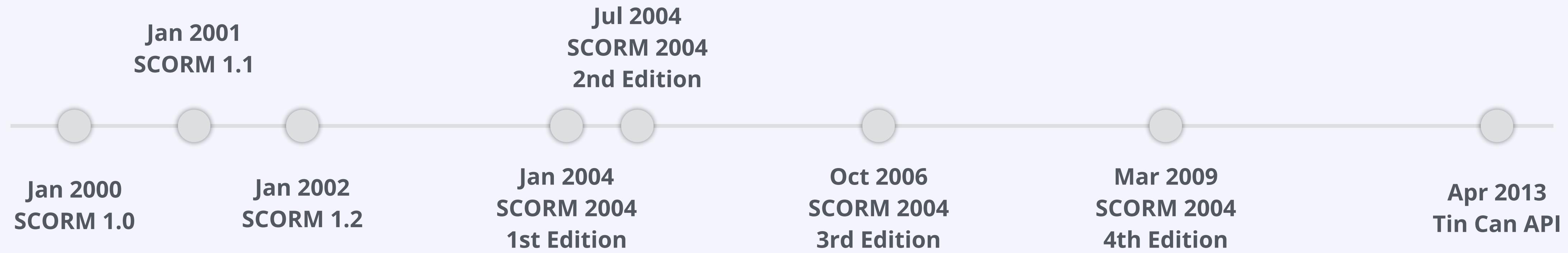
## COLLECT THE EXPERIENCES THAT MATTER.

THIS API RECORDS ACTIVITIES  
AND DELIVERS DATA THAT IS:

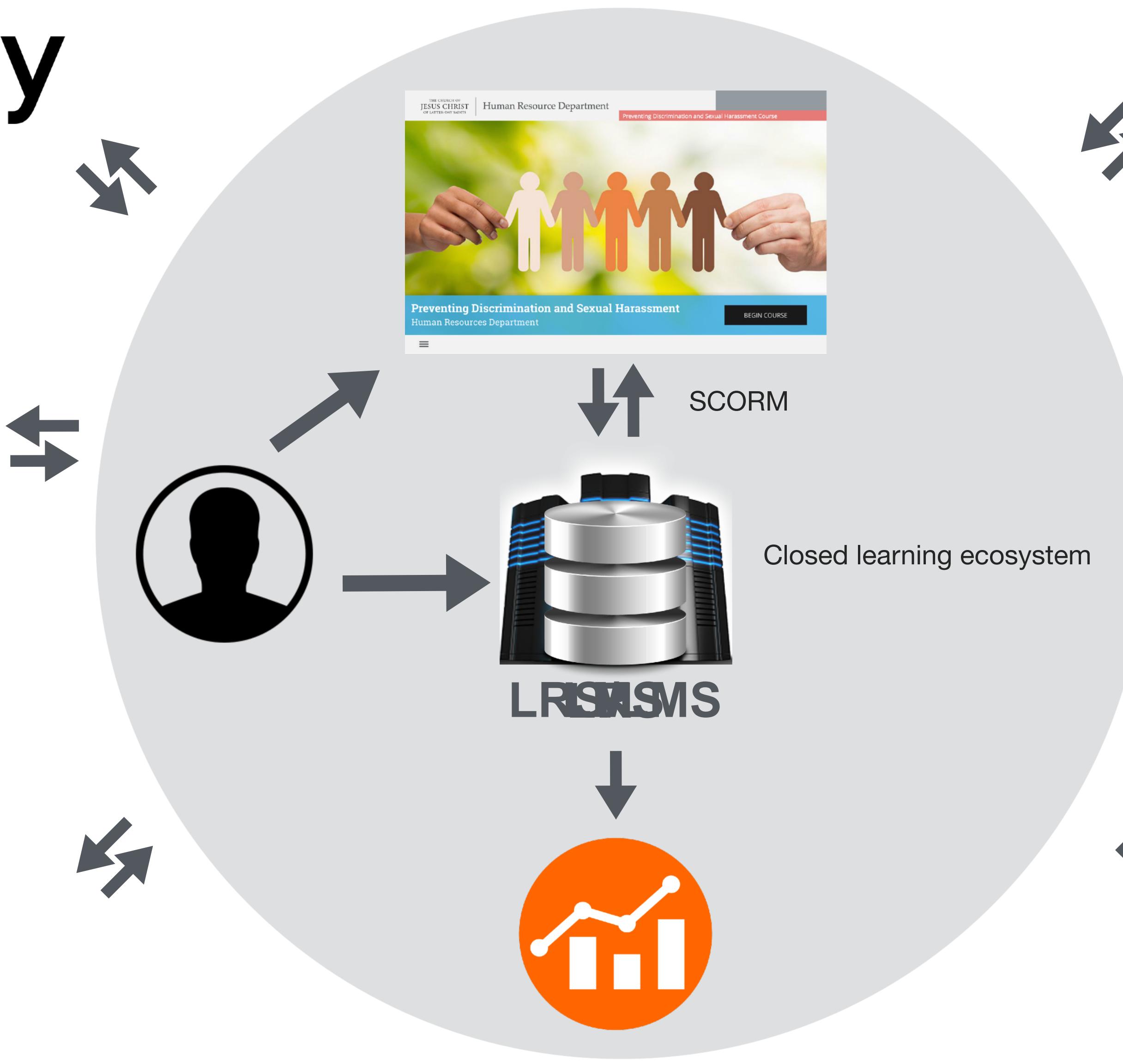
- QUANTIFIABLE
- SHARABLE
- TRACKABLE

# What is xAPI(TinCan)?

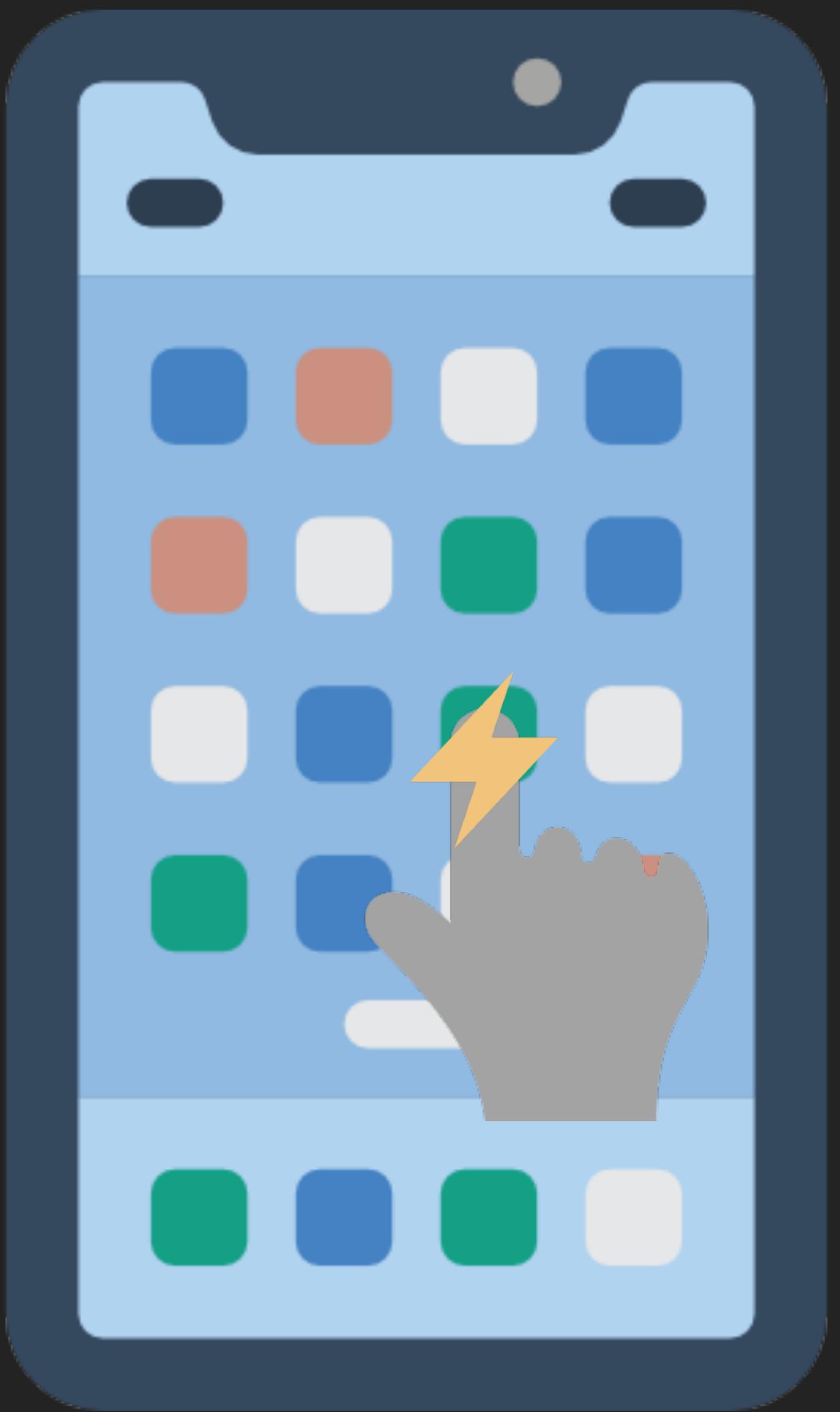
e-learning software specification that allows learning content and learning systems to speak to each other in a manner that records and tracks all types of learning experiences.



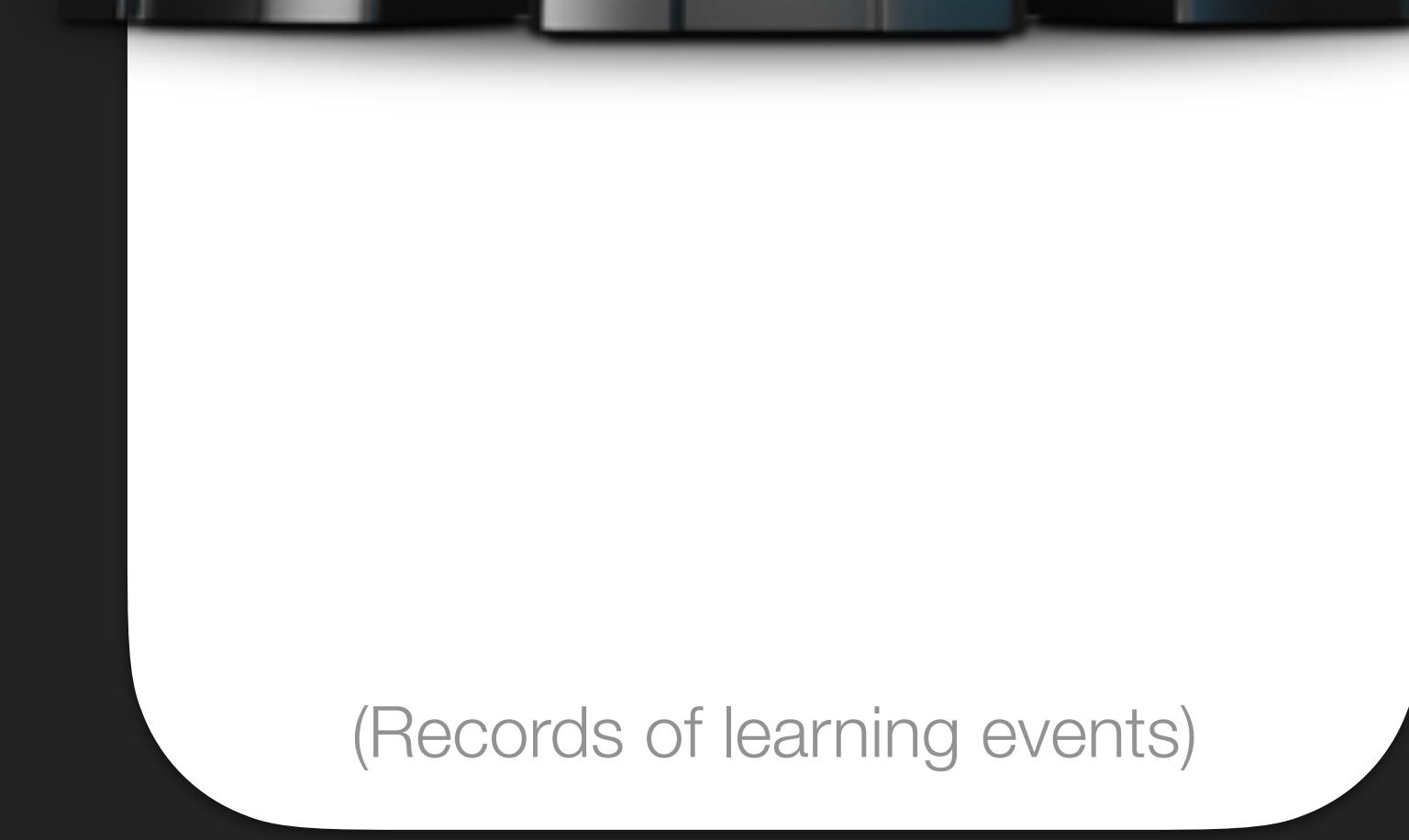
# udemy



Learning is going on everywhere

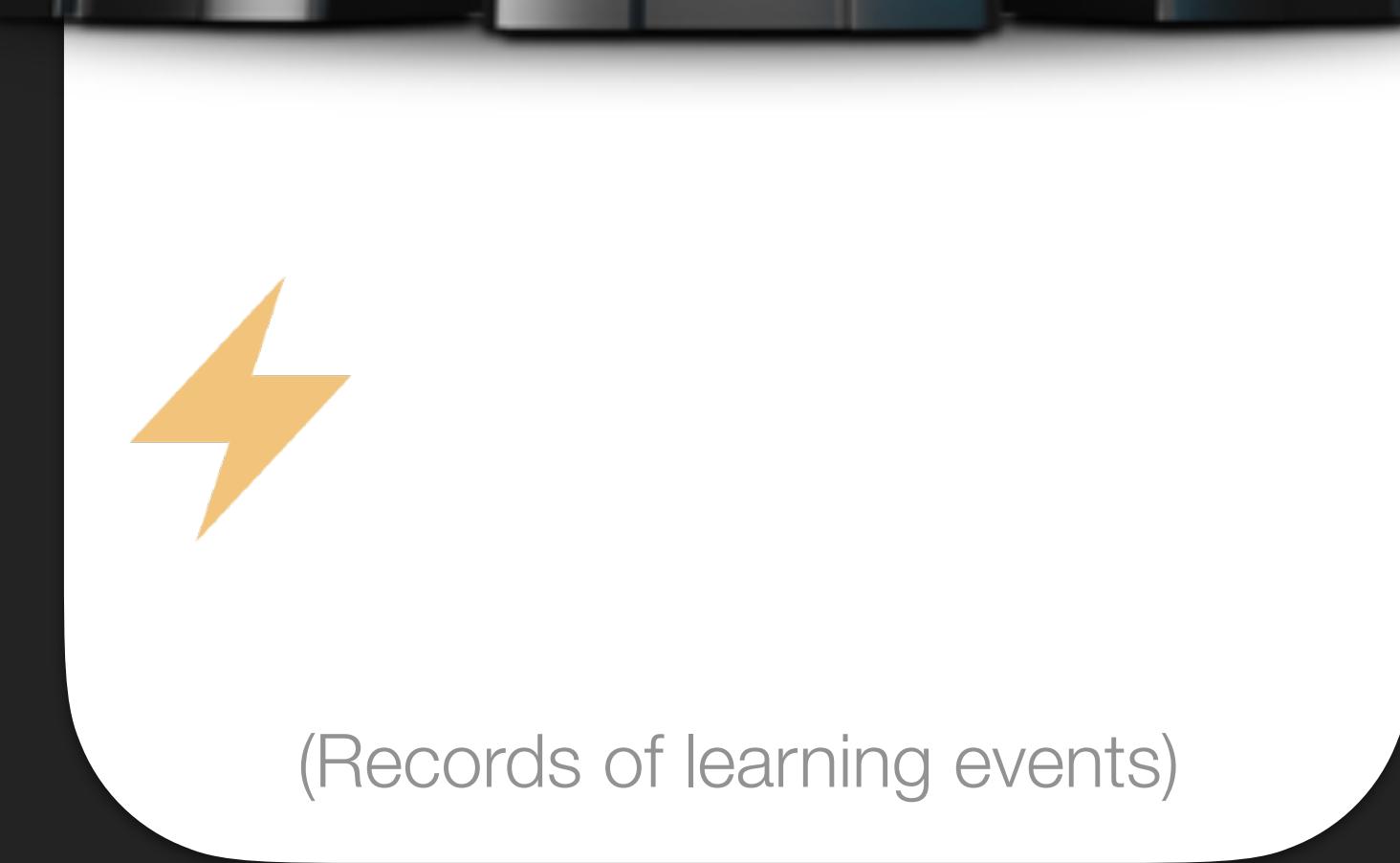


LRS

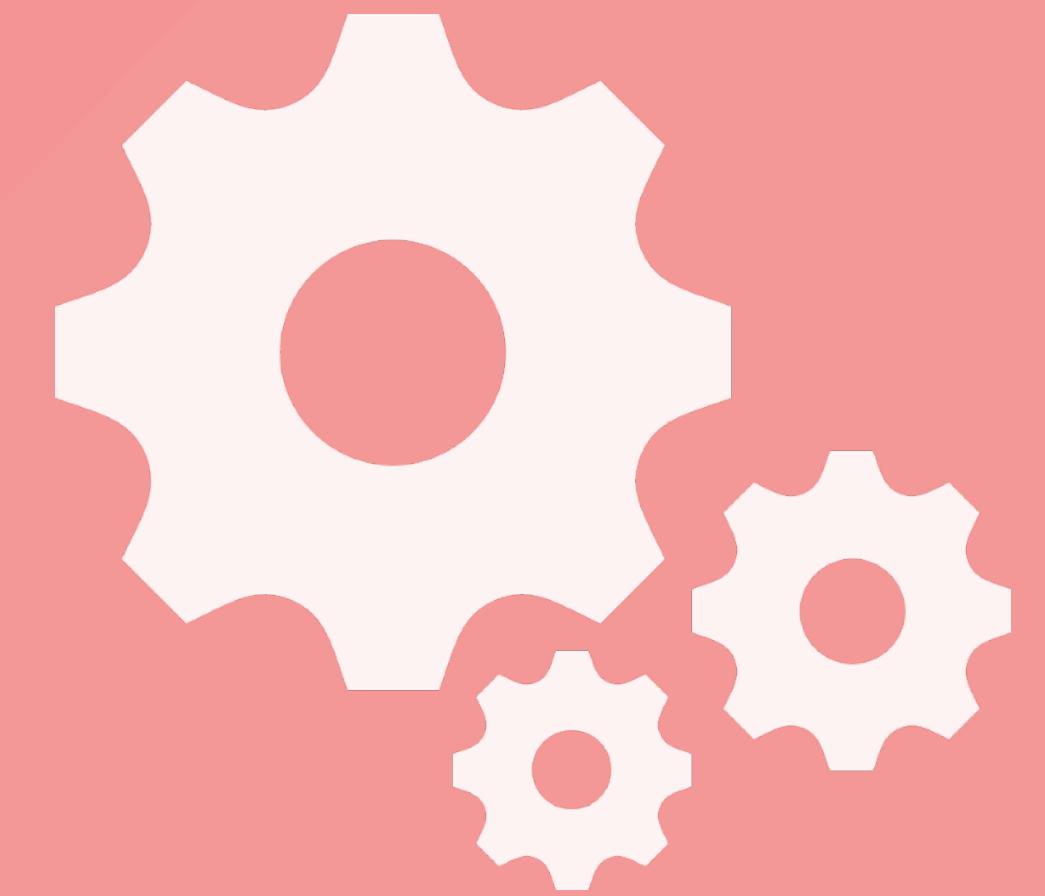




LRS

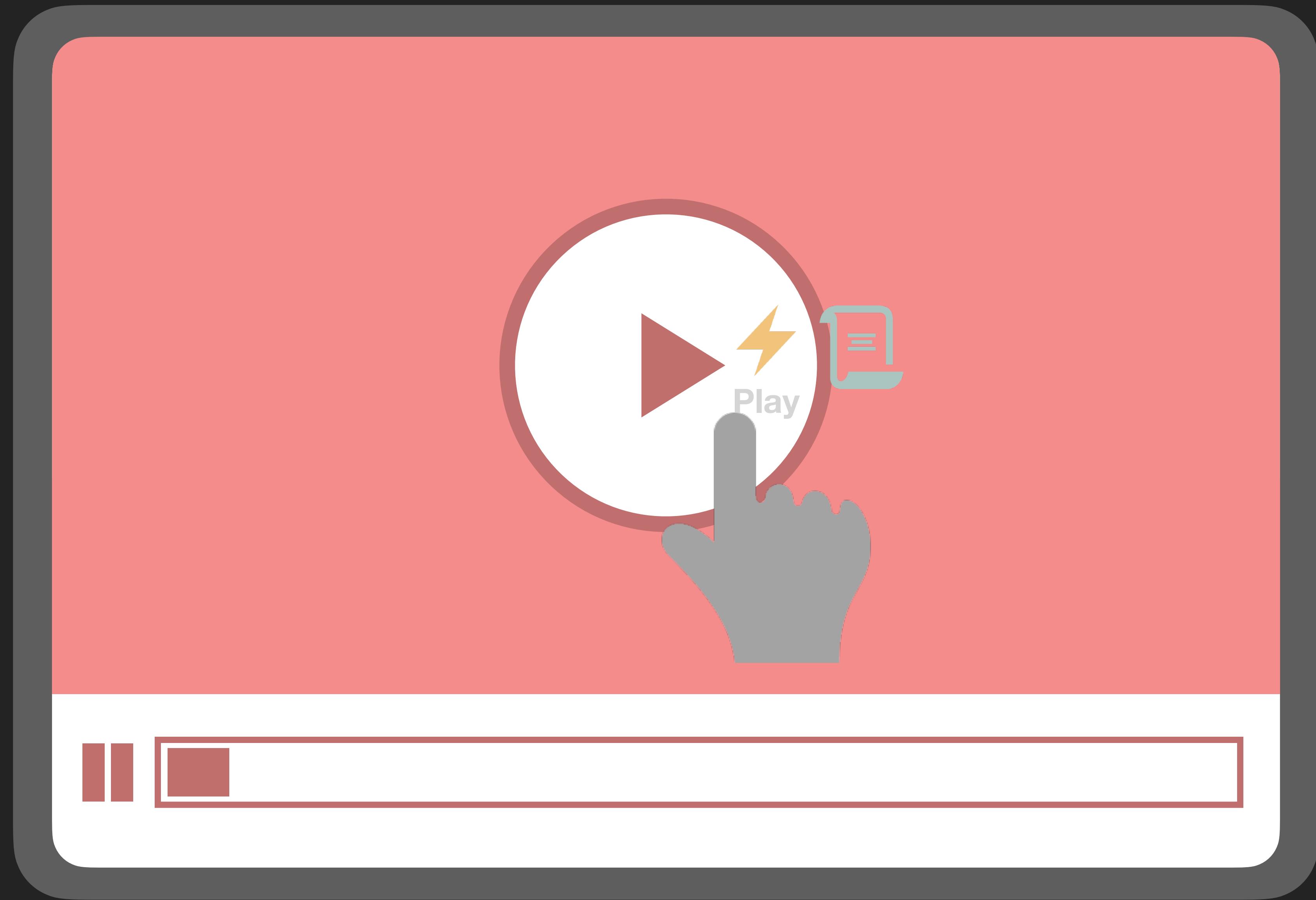


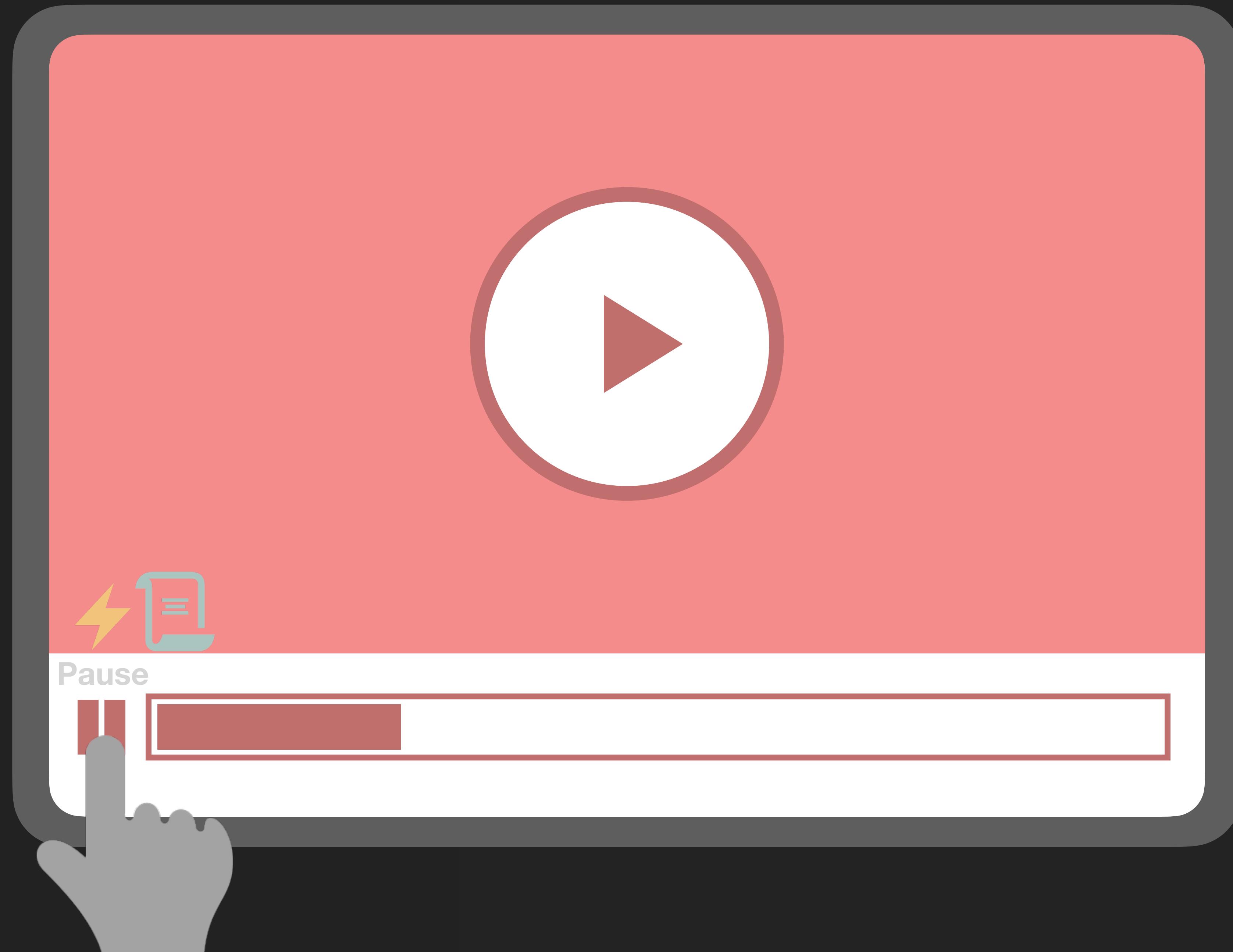
(Records of learning events)

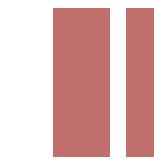
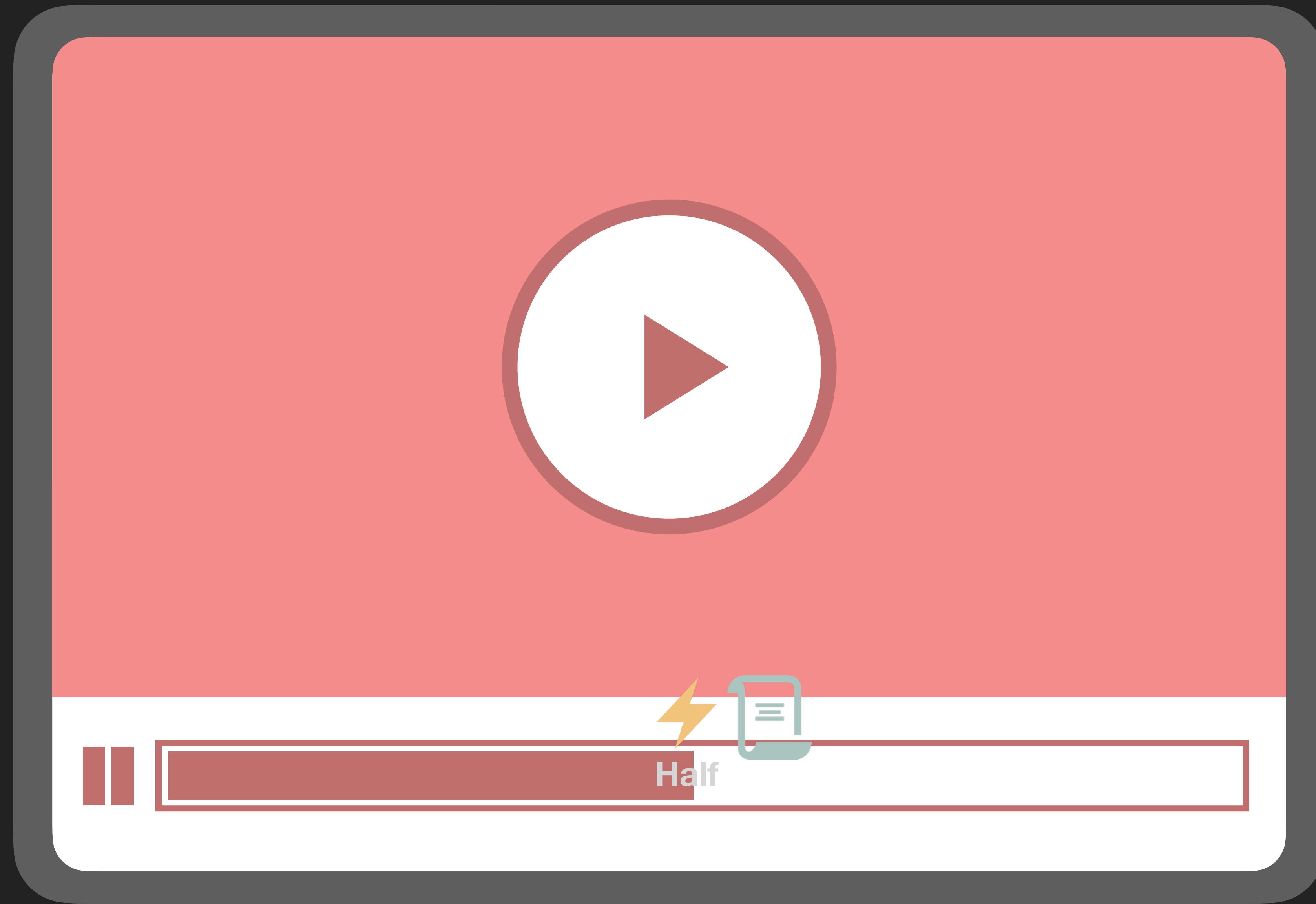


# Tracking Video



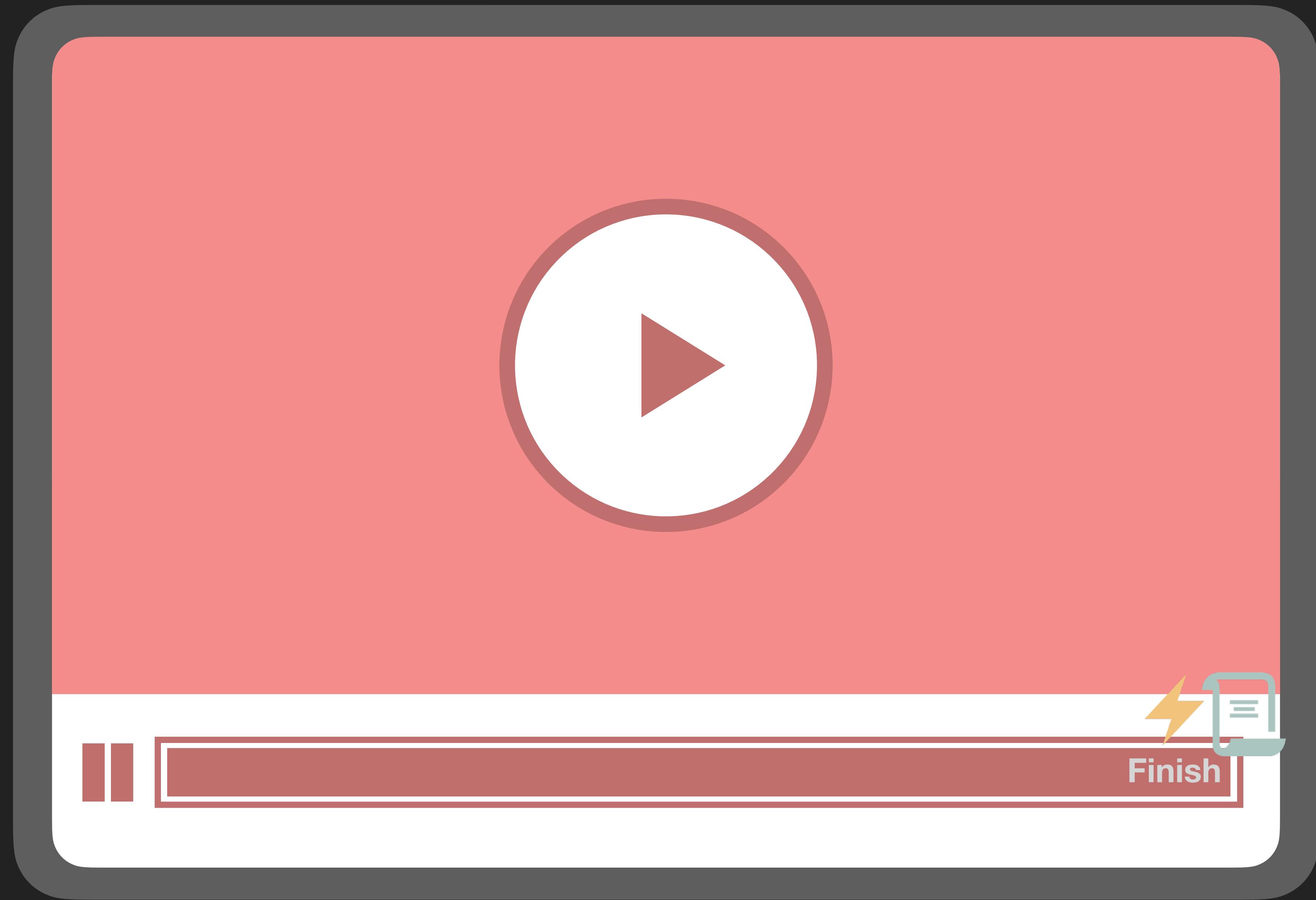






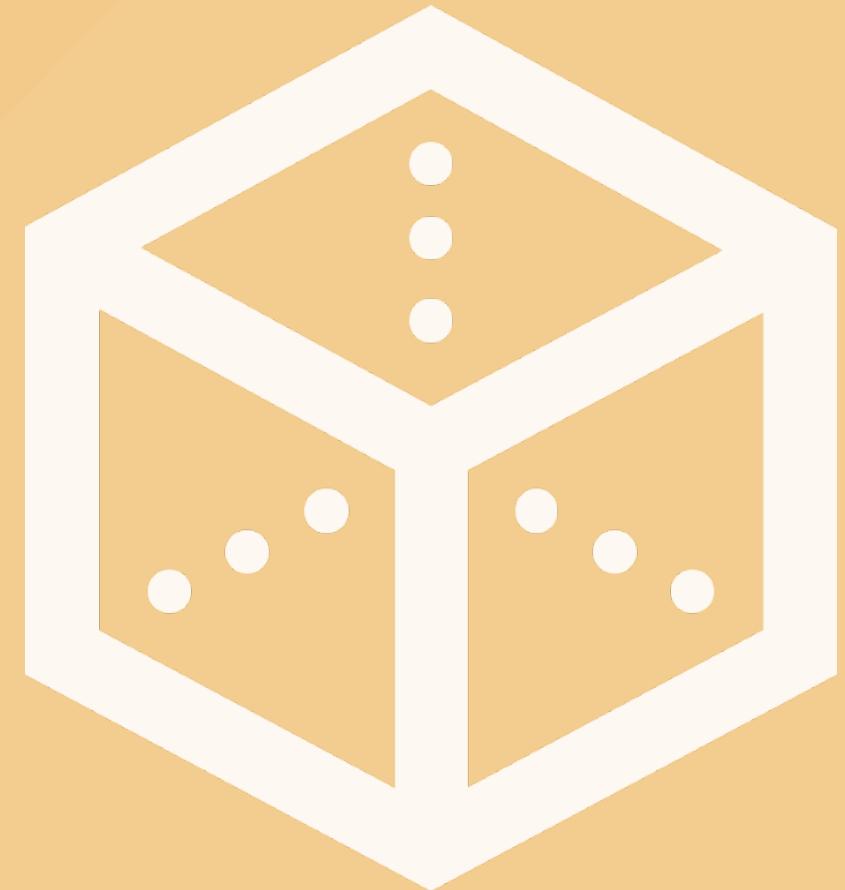
Half







Learning Record = **xAPI Statement**



# 3 Parts of a Statement

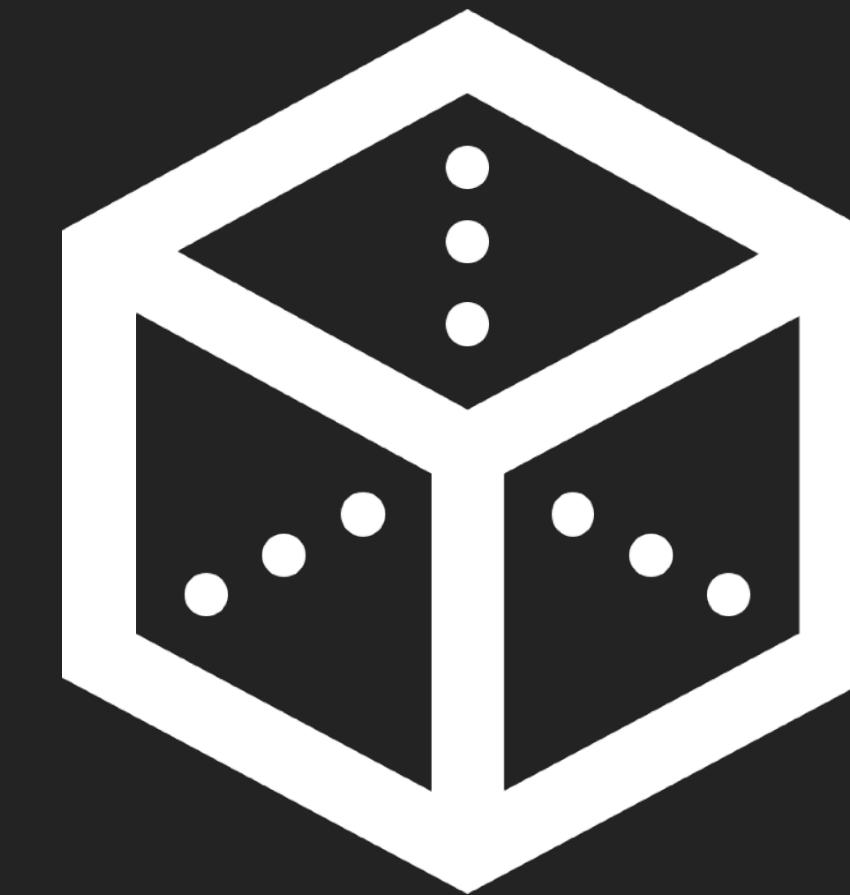




The **Actor**



The **Verb**



The **Object**



*“Look ma’  
I’m famous!”*

# The Actor



# Statement Builder

The **Actor**



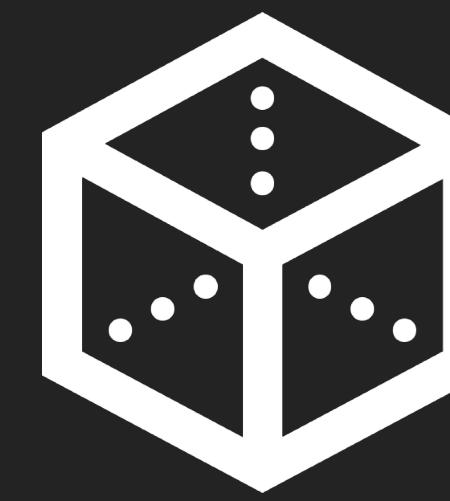
Jeff Batt

The **Verb**



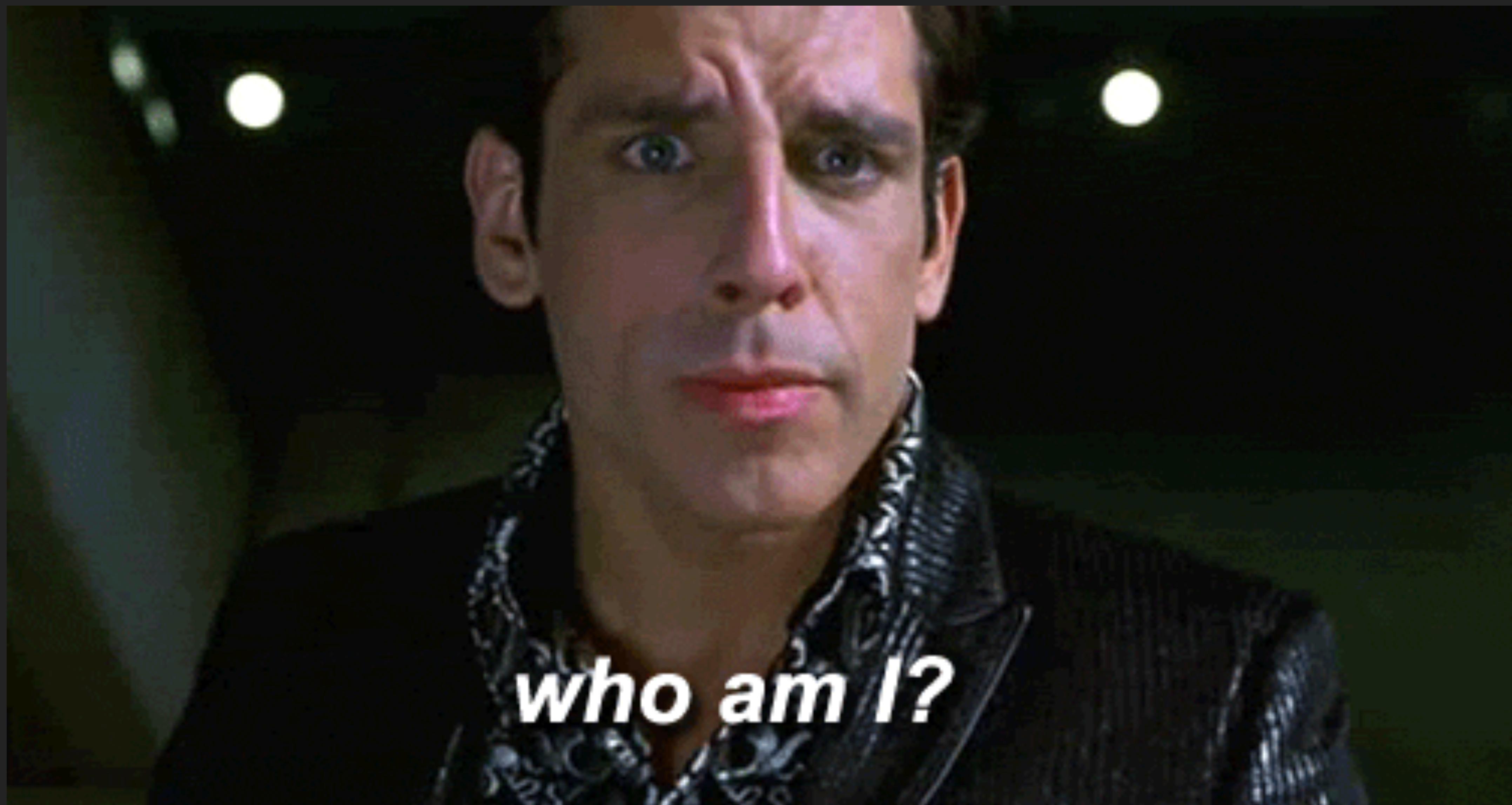
...

The **Object**



...





**who am I?**



# The Verb



# Statement Builder

The **Actor**



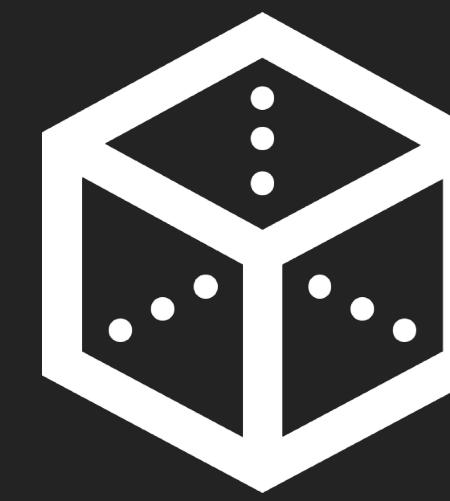
Jeff Batt

The **Verb**



started

The **Object**



...

# Statement Builder

The **Actor**



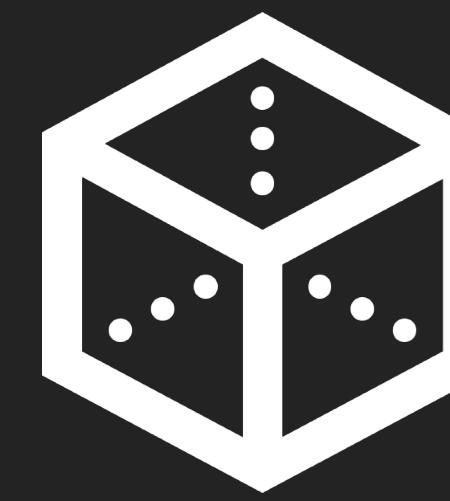
Jeff Batt

The **Verb**



completed

The **Object**



...

# Statement Builder

The **Actor**



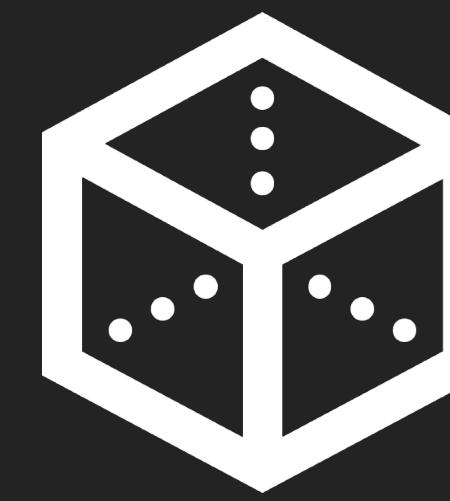
Jeff Batt

The **Verb**



answered

The **Object**



...

# Possible Verbs

downloaded

accepted

accessed

inserted

read

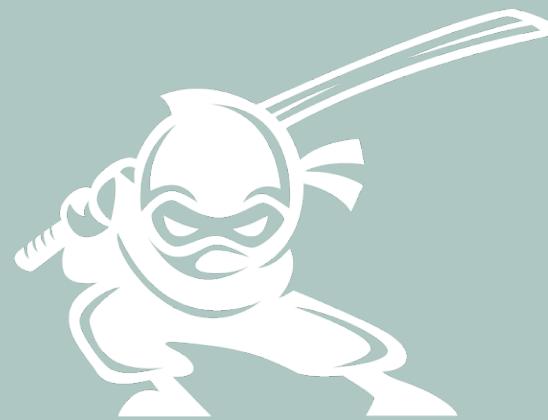
listened

<https://registry.tincanapi.com/#home/verbs>

<http://xapi.vocab.pub/verbs/index.html>



# The Object



# Statement Builder

The **Actor**



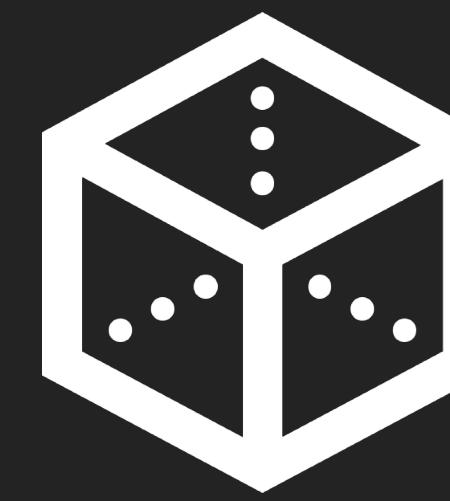
Jeff Batt

The **Verb**



read

The **Object**



...

# Statement Builder

The **Actor**



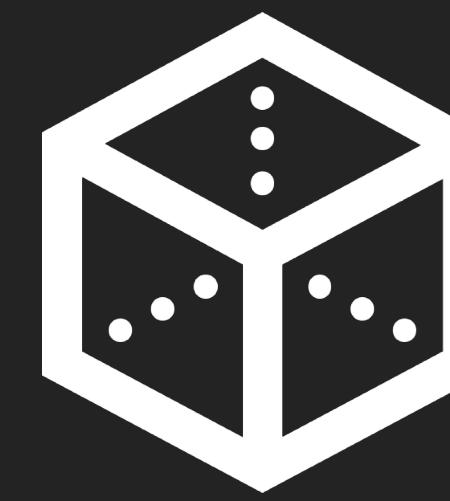
Jeff Batt

The **Verb**



downloaded

The **Object**



???

# Statement Builder

The **Actor**



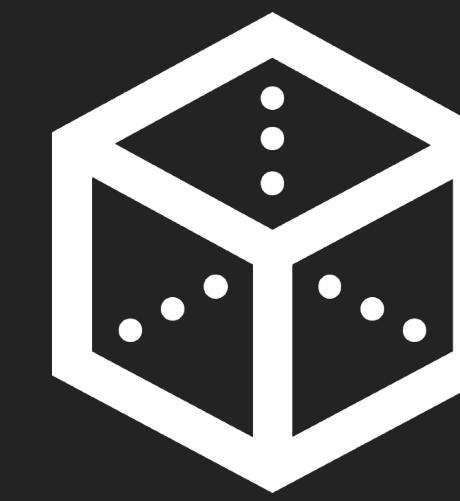
Jeff Batt

The **Verb**



downloaded

The **Object**



the help guide  
on ethics

Quiz data

Time spent

# Who, what action, description

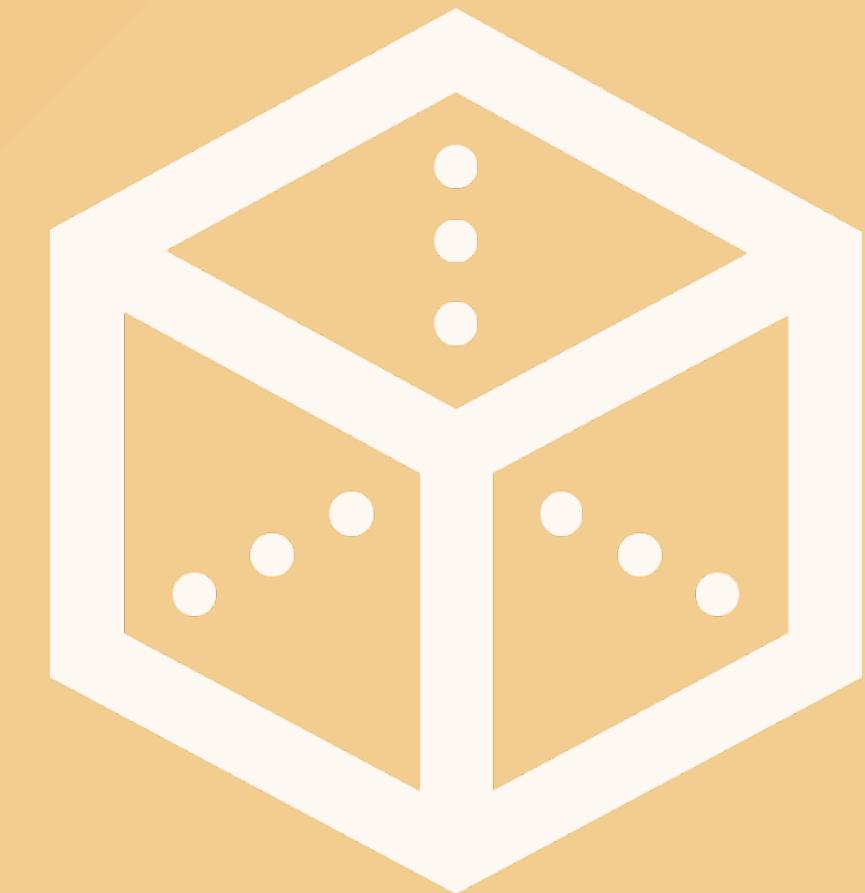
## {actor, verb, object}

Refresh Show Advanced Options

- a few seconds ago ➤ Sammy McGee answered 'Favorite food question'
- a few seconds ago ➤ Sammy McGee commented 'commented'
- a few seconds ago ➤ Sammy McGee agreed 'to follow the standards of Safeguards'
- a few seconds ago ➤ Sammy McGee completed 'My Plan Course'
- a few seconds ago ➤ Sammy McGee completed 'My Plan Course' with score 85%
- a few seconds ago ➤ Sammy McGee shared 'a link'
- a few seconds ago ➤ Jeff Batt answered 'Favorite food question'
- a few seconds ago ➤ Jeff Batt commented 'commented'
- a few seconds ago ➤ Jeff Batt agreed 'to follow the standards of Safeguards'
- a minute ago ➤ Jeff Batt completed 'My Plan Course'
- a minute ago ➤ Jeff Batt completed 'My Plan Course' with score 65%
- a minute ago ➤ Jeff Batt shared 'a link'
- a minute ago ➤ Jeff Batt created 'a new to do task.'
- a minute ago ➤ Jeff Batt completed 'reading scripture goal.'
- a minute ago ➤ Jeff Batt started 'reading scripture goal.'



LRS



# Personalization of Learning



# One Size Won't Fit All

bit.ly/personal-learning

## One Size Won't Fit All: The Future of Personalized Digital Learning



**Share**

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Written By



Jeff Batt

July 15, 2016

In June, I attended The eLearning Guild's new FocusOn Learning Conference & Expo. There was one particular takeaway from the conference that I think we need to embrace more as an industry, and I want to share that thought with you. The thought is this: What if your digital learning could adapt, adjust, read, and assess the needs of each of your "digital students," then serve up a personalized course specific to each of them based on their personal learning history? How cool would it be if we could create a personalized learning experience for each student who takes our courses?

New Tool Coaches Proportionate Response to Sexual Misconduct  
Pamela Hogle • October 1, 2018



Surprising Ways AI Can Improve eLearning Accessibility  
Pamela Hogle • September 25, 2018



Create Data Visualizations for eLearning with 3 Free  
Pamela Hogle • September 20, 2018



Using Copyrighted Music and Media in Your Podcast  
Jeff D'Anza • September 18, 2018





# The Problem



PUSH



PULL

# Laura



## Years of Employment

1 year



## Certifications

None



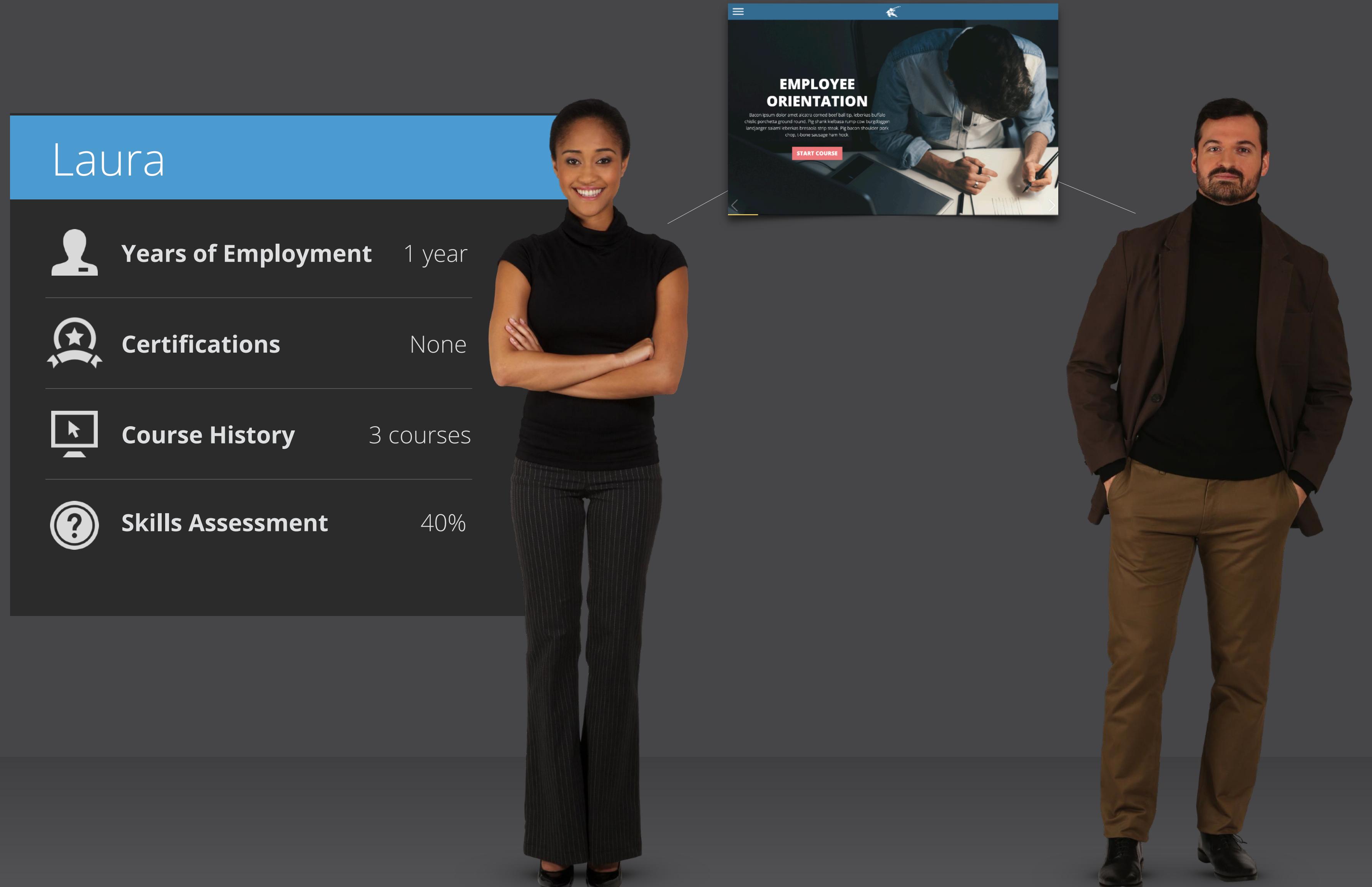
## Course History

3 courses

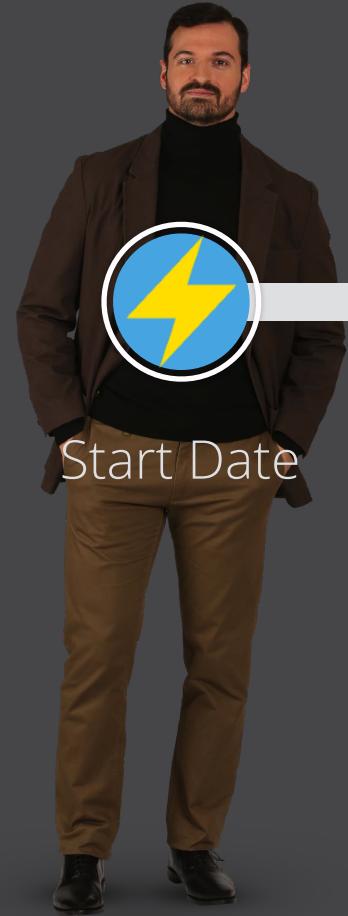


## Skills Assessment

40%







Start Date

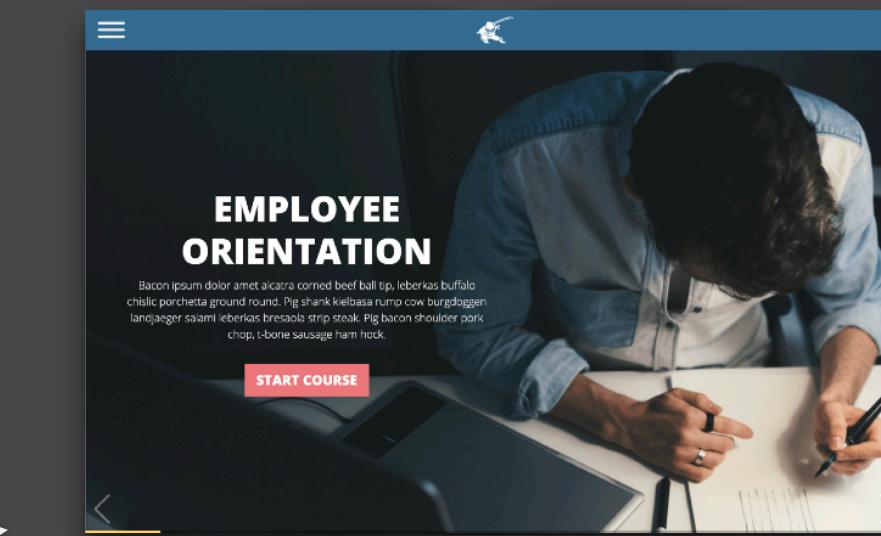
PMP Cert

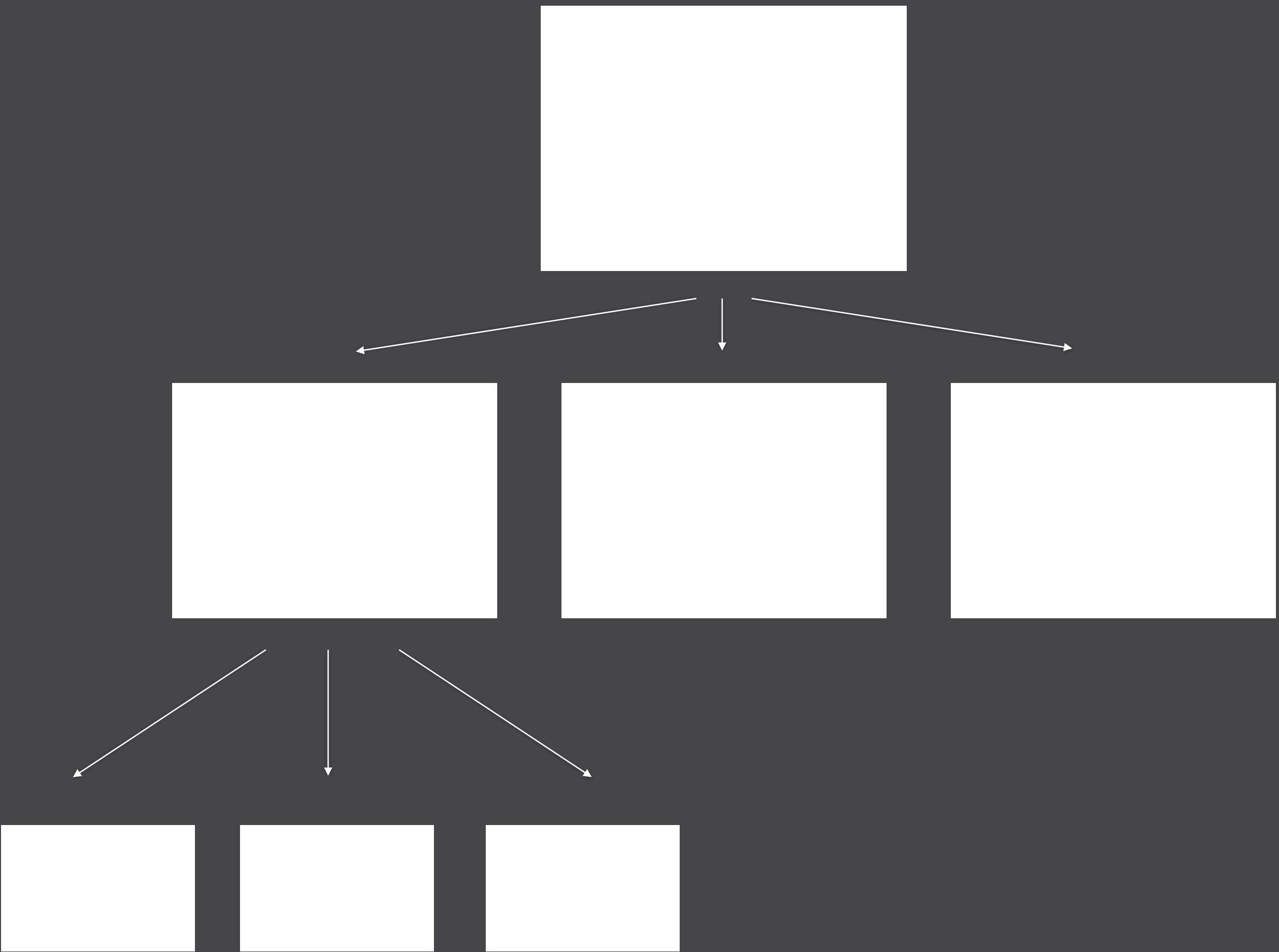
PMP Renew

Retirement



LRS





# Before we continue...





*Sending virtual hug*



*loading...*



**YOU CAN DO IT!**

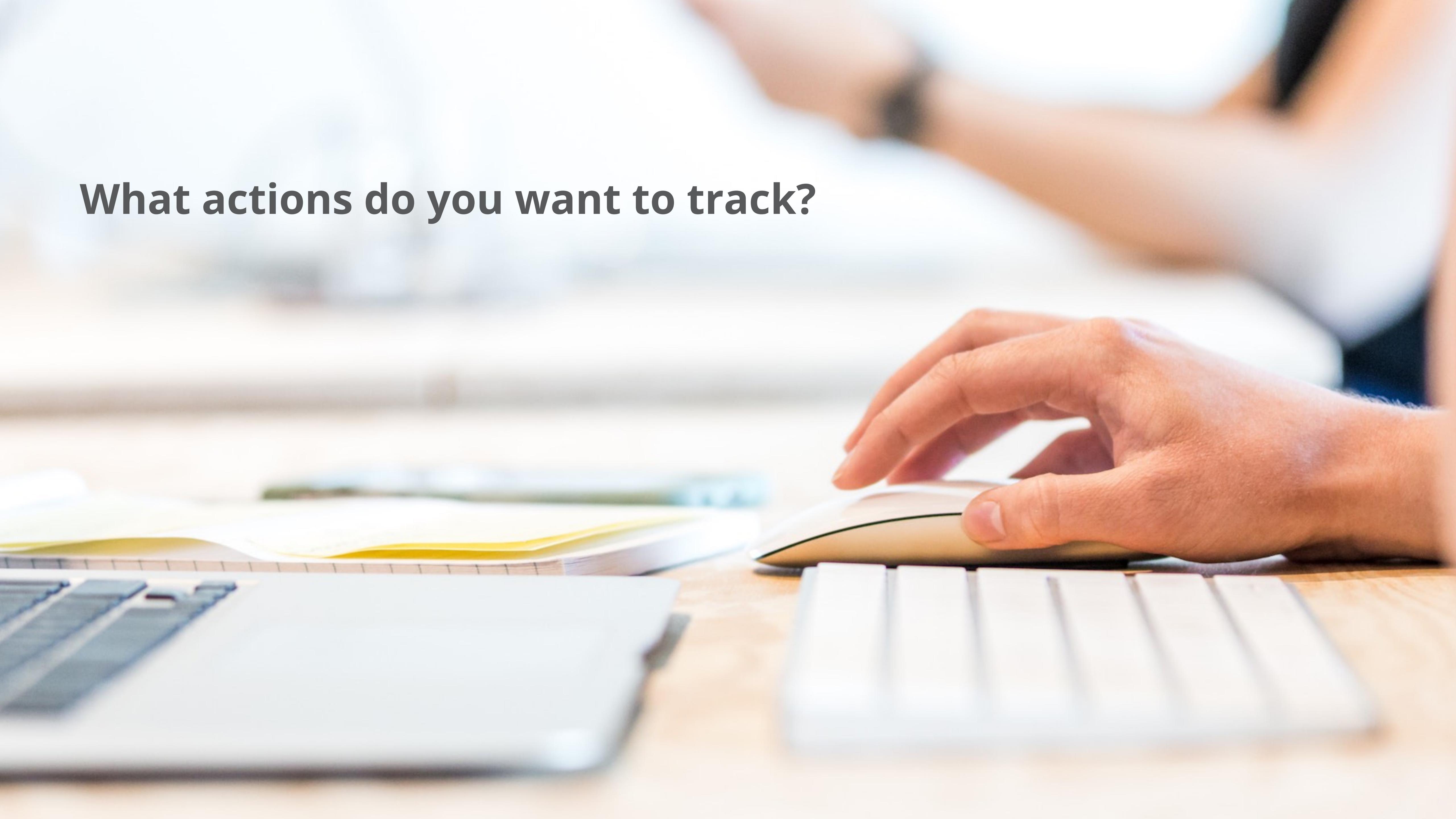




**But how???**



**Ask yourself two questions**

A close-up photograph of a person's hands resting on a white computer keyboard. The hands are positioned as if ready to type. In the background, slightly out of focus, is a person wearing a light-colored shirt. On the desk in front of the keyboard, there is a white notebook with yellow pages and a blue pen.

**What actions do you want to track?**



How do you want your content to change based  
on what actions you track?

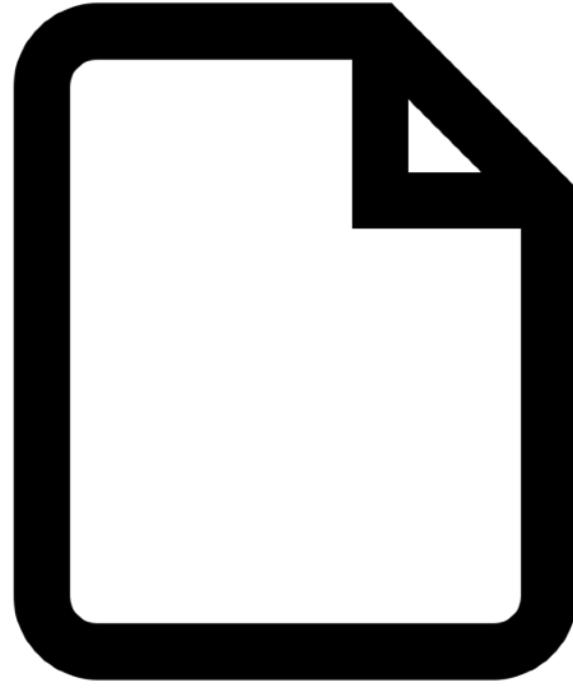
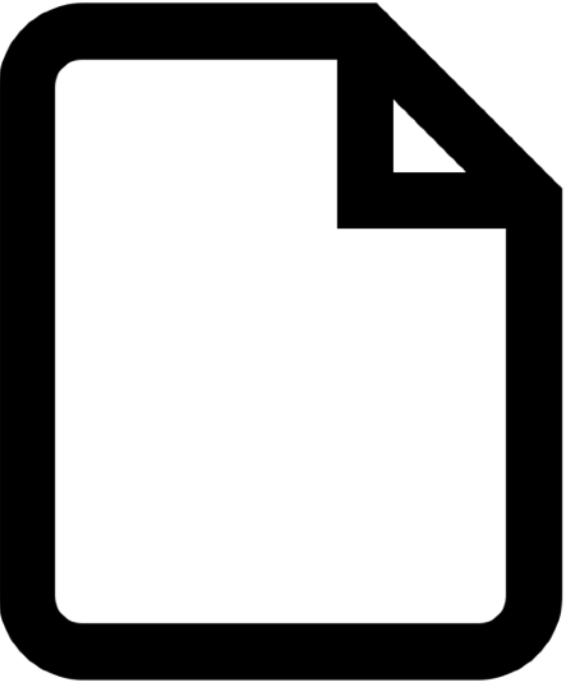


# Building The Statement



# **Step 1:** Connect to the LRS

<https://github.com/adlnet/xAPIWrapper>



```
<script src="js/cryptojs_v3.1.2.js"></script>
<script src="js/xapiwrapper.js"></script>
```

## **Step 2:** Send the Statement

## Breakdown - Send statement

```
let statement ({  
    [REDACTED]  
});  
ADL.XAPIWrapper.sendStatement(statement);
```

## **Step 3:** Format the JSON

## Breakdown - Actor, Verb and Object

```
"actor": {  
},  
"verb": {  
},  
"object": {  
}
```

## Breakdown - Actor

```
"actor": {  
    "name": "Jeff Batt",  
    "mbox": "jeffbatt@gmail.com"  
},
```

## Breakdown - Verb

```
"verb": {  
    "id": "http://adlnet.gov/expapi/verbs-initialized",  
    "display": {"en-US": "initialized"}  
},
```

## Breakdown - Object

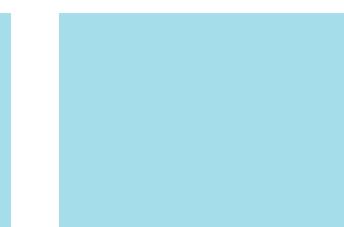
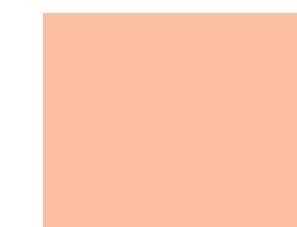
```
"object": {  
    "id": "http://learningdojo.net/xAPI/ActivityID",  
    "definition": {  
        "name": { "en-US": "Name of ID"},  
        "description": {"en-US": "Description"}  
    }  
},
```

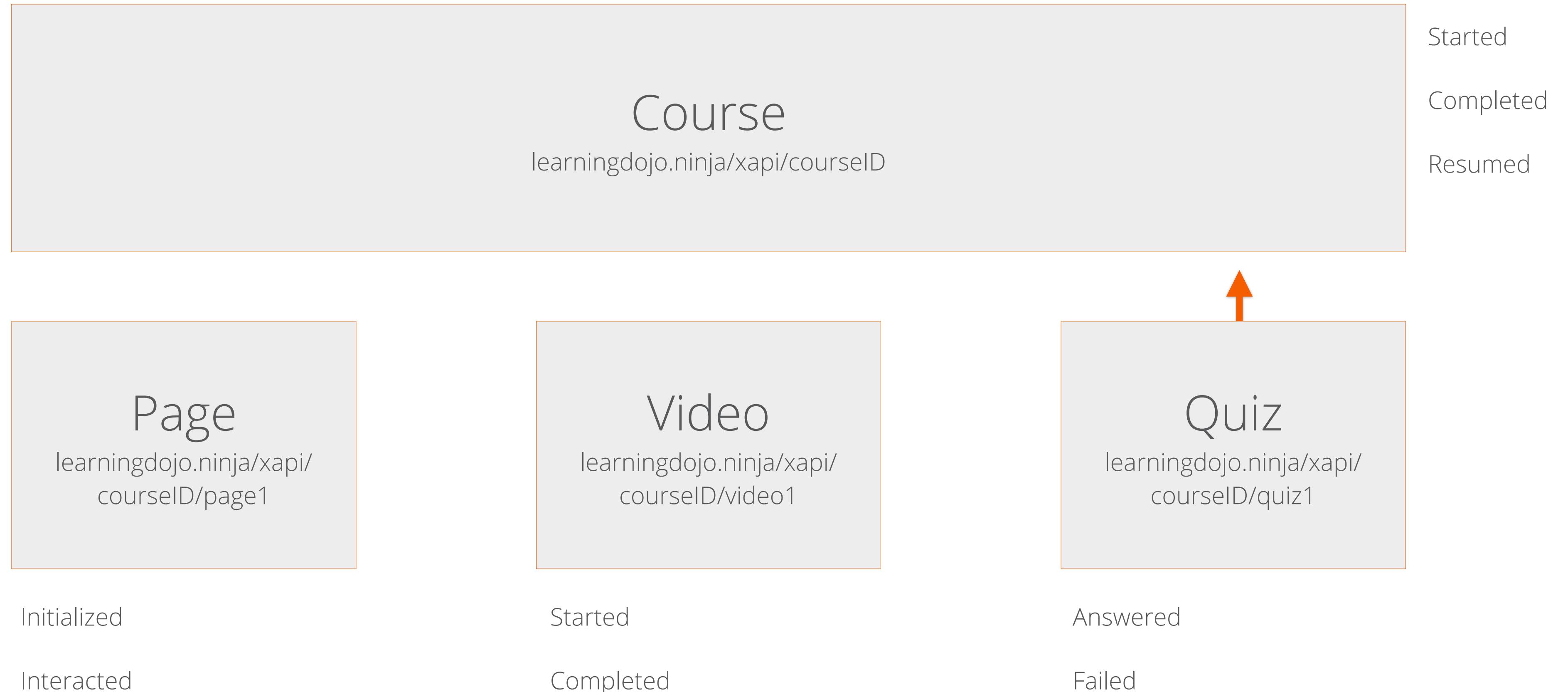
learningdojo.ninja/xapi/course1

learningdojo.ninja/xapi/  
course1/**video1**

learningdojo.ninja/xapi/  
course1/**game1**

learningdojo.ninja/xapi/  
course1/**interaction1**





Extensions = Context

Jeff Batt **attended** this conference

At the Mirage  
During October

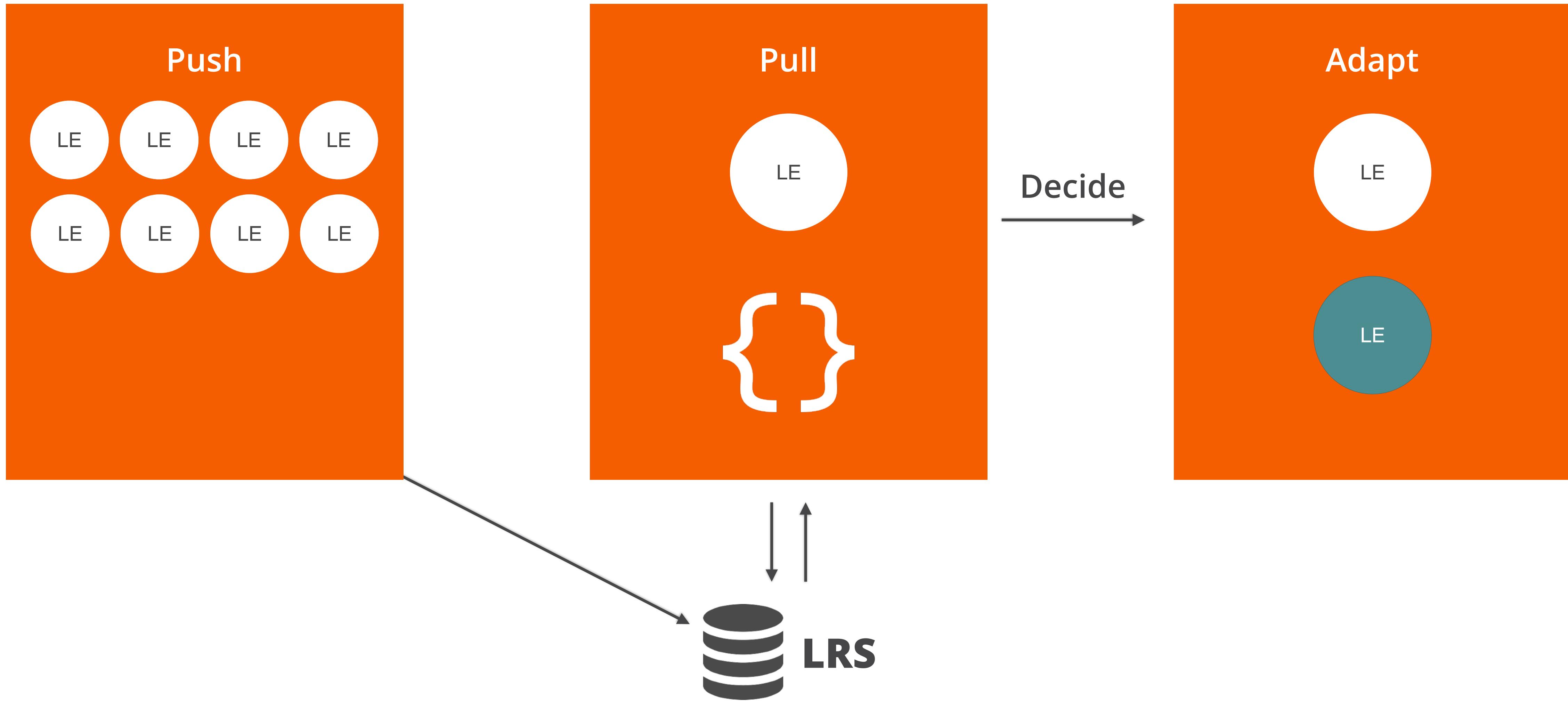
# Results

Property	Type	Description	Required
score	Object	The score of the Agent in relation to the success or quality of the experience. <a href="#">See: Score</a>	Optional
success	Boolean	Indicates whether or not the attempt on the Activity was successful.	Optional
completion	Boolean	Indicates whether or not the Activity was completed.	Optional
response	String	A response appropriately formatted for the given Activity.	Optional
duration	Duration	Period of time over which the Statement occurred.	Optional
extensions	Object	A map of other properties as needed. <a href="#">See: Extensions</a>	Optional

<https://adlnet.github.io/xapi-lab/>

# Personalization Storyline Example

# xAPI Personalization Process Workflow





Watershed

([www.watershedlrs.com](http://www.watershedlrs.com))

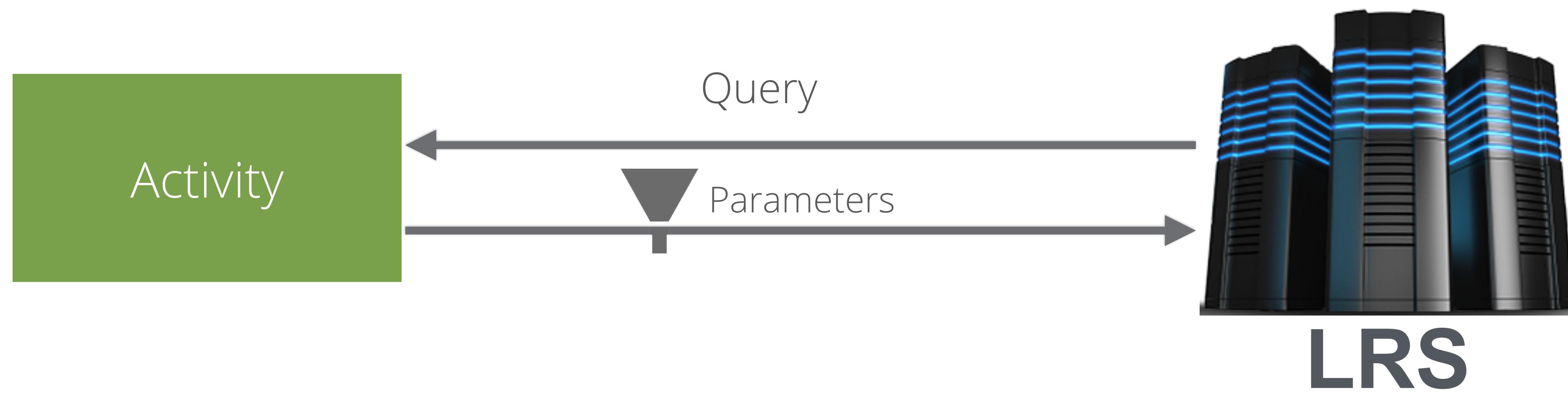


([www.veracity.com](http://www.veracity.com))



Learning Locker  
HT2Labs

([www.learninglocker.net](http://www.learninglocker.net))

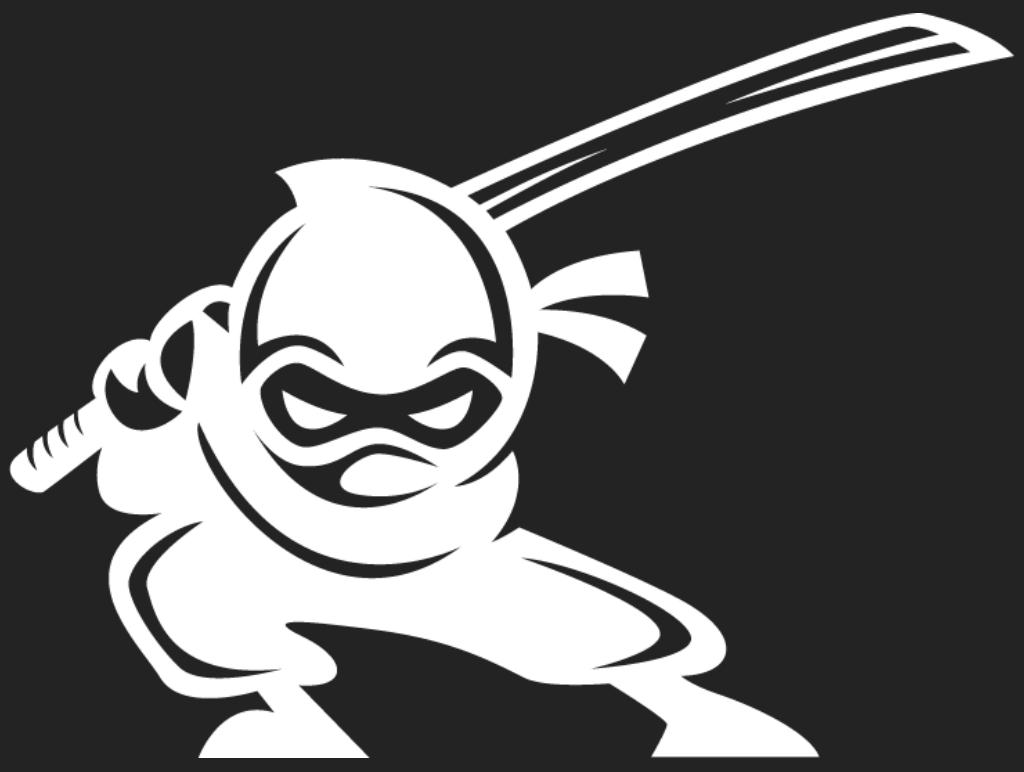




# Templates



[learningdojo.ninja/templates.html](http://learningdojo.ninja/templates.html)



# Thank you!

@jeffbattlearn

jeff@learningdojo.ninja

learningdojo.ninja