



# ADL Training & Learning Architecture (TLA)

Jonathan Poltrack

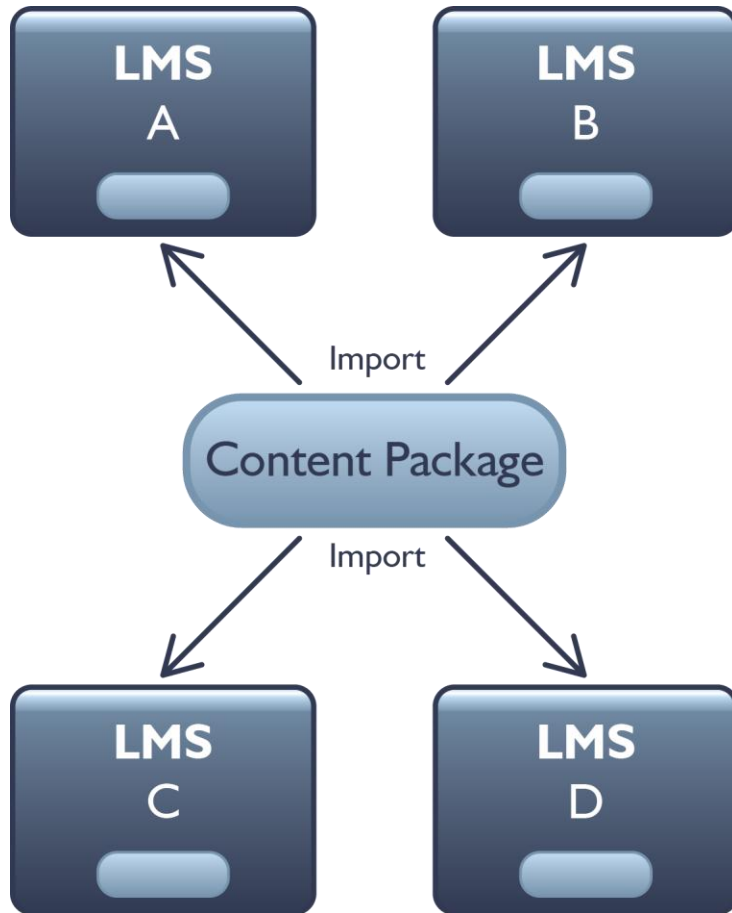
ADL Alexandria Co-Lab Director of Operations & Technical Team Co-Lead

Contractor with Problem Solutions LLC, SETA Support for ADL

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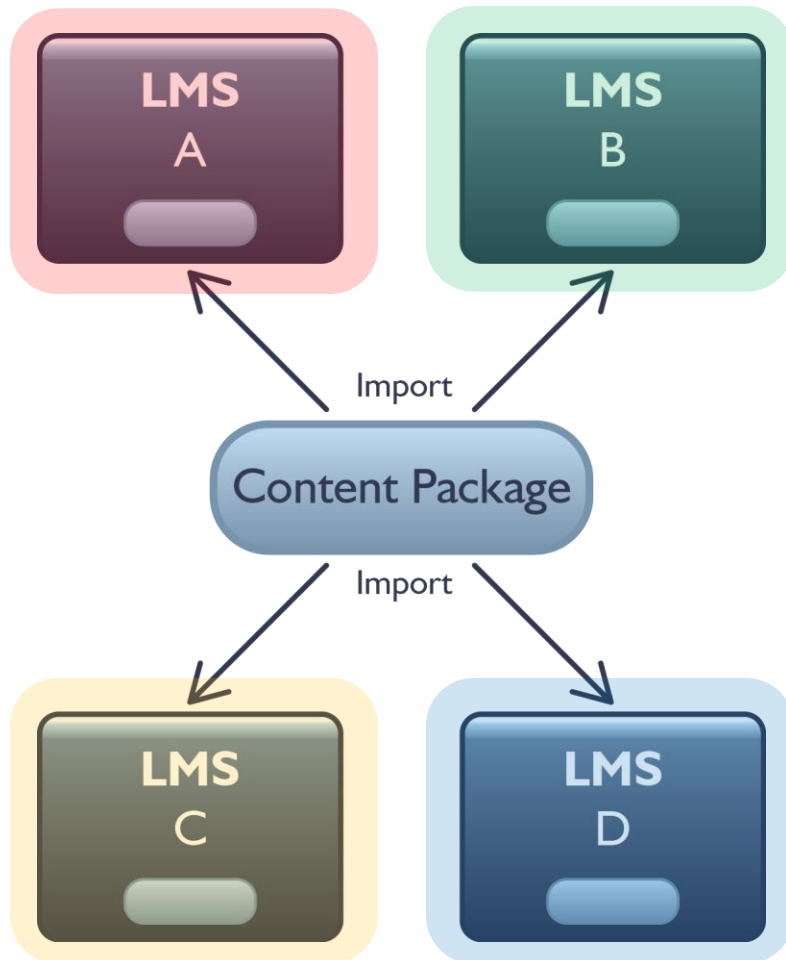
# The Traditional Learning Enterprise



## Distributed Content

- Web-Based Content Packages imported into Learning Management Systems (LMSs)
- Content duplicated in each system
- LMSs contain the content, control access and manage learning data

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# This Worked Well for Web-Based Activities

- Platform was intended for web-based content-only
- Data Model provided a means to get and set common data elements like scores, complete/incomplete, pass/fail, etc.
- DoD and Services had immediate problem moving courses to other LMSs on secure networks

# New Expectations

What will you expect your next generation learning environment to provide?

# Next Generation Environment



## Access From Any Device



## Personalized and Brokered Content

- Just-in-Time
- Just-for-You



## Learn From:

- Intelligent Tutors
- Mentors and peers via social networks
- Self-Discovery

## Learn Using:

- Simulations
- Games
- Virtual Worlds
- Intelligent content

# How?

Legacy platforms are often data silos with limited access to collected data



# Digital Government

Building a 21<sup>st</sup> Century Platform to Better Serve the American People







- #1 Transportation Map
- #2 Nearest Subway Station
- #3 Next Bus Time @ Stop
- #4 Route Planner

- .
- .
- .



#1 Transportation Map

#2 Nearest Subway Station

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- #1 Transportation Map
- #2 Nearest Subway Station
- #3 Next Bus Time @ Stop
- #4 Route Planner

- #1 Augmented Reality
- #2 Trip Planner
- #3 Tablet-Optimized
- #4 NFC Payment



- #1 Construction warnings
- #2 Traffic warnings
- #3 Alternate Routes
- #4 Estimated Arrival



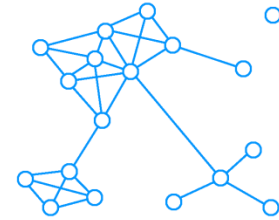
## Learner Profile Info



## Learner Experience Info



## Curriculum & Competency Info



## Content Info



# Training & Learning Architecture (TLA)

**TLA**

- Experience Tracking
- Content Brokering
- Learner Profiles
- Competency Networks

# Training & Learning Architecture (TLA)

Web  
Services

Open  
Source  
Software

- Experience Tracking
- Content Brokering
- Learner Profiles
- Competency Networks



# Web Service Benefits

- Interoperability – Works with any programming language while providing non-proprietary solution due to standards-based communications
- Usability – Exposes logic over the web that can be used instead of reinvented
- Reusability – Easy to reuse common tasks without duplication of code
- Deployability– Leverages standard Internet technologies

# Open Source Benefits

- Security and Quality – The more people who see the code, the more likely flaws will be caught and tested quickly
- Freedom and Customizability – With all of the code available, any custom updates can be made without vendor reliance
- Auditability – Visibility of code means that systems can be verified first-hand
- Costs – Licensing costs are low or free
- Support Options – Vibrant communities with forums, wikis, newsgroups, chat, etc.

# TLA Experience Tracking

## Requirements

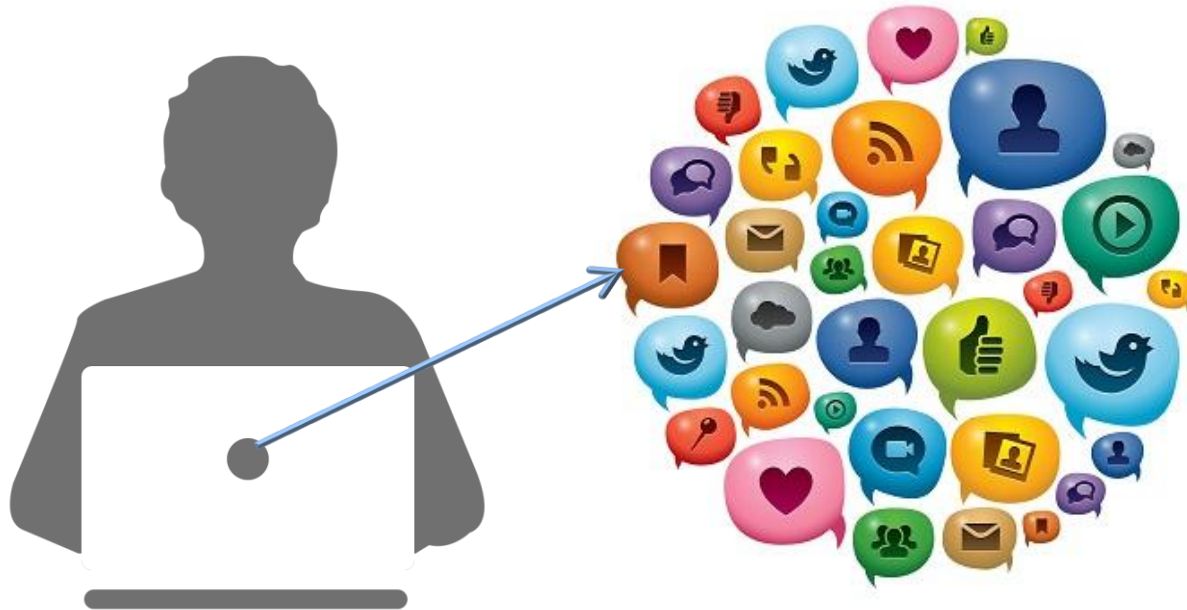
- Enables tracking of experiential learning data
- Exposes tracked data



# TLA Content Brokering

## Requirements

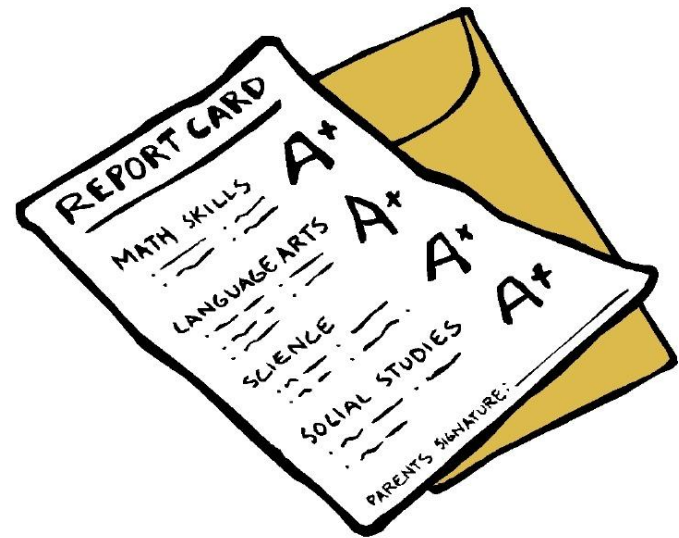
- Manage content to support just-in-time learning by enabling logical selections of the “next” logical activity
- Provides machines the ability to “understand” content for the purposes of selection and launch



# TLA Learner Profiles

## Requirements

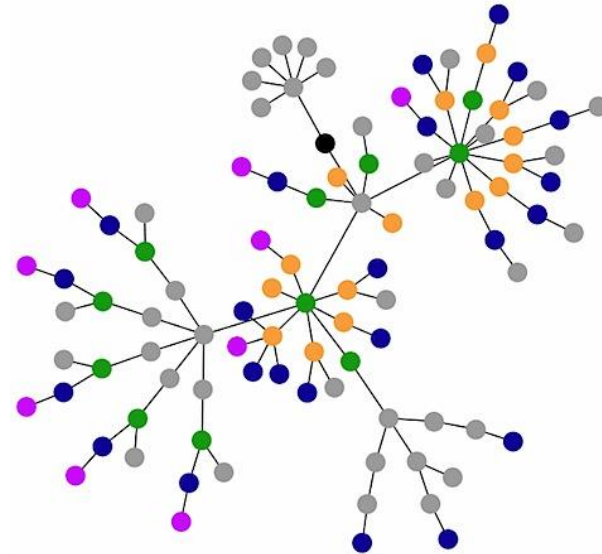
- Compile data about a learner to include previous course completions, competencies, preferences, and portfolios
- Provide access to profile information to be used to tailor learning experiences to an individual



# TLA Competency Networks

## Requirements

- Establish a common way for content and systems to reference objectives and competencies
- Provide a means to represent a competency and competency relationships

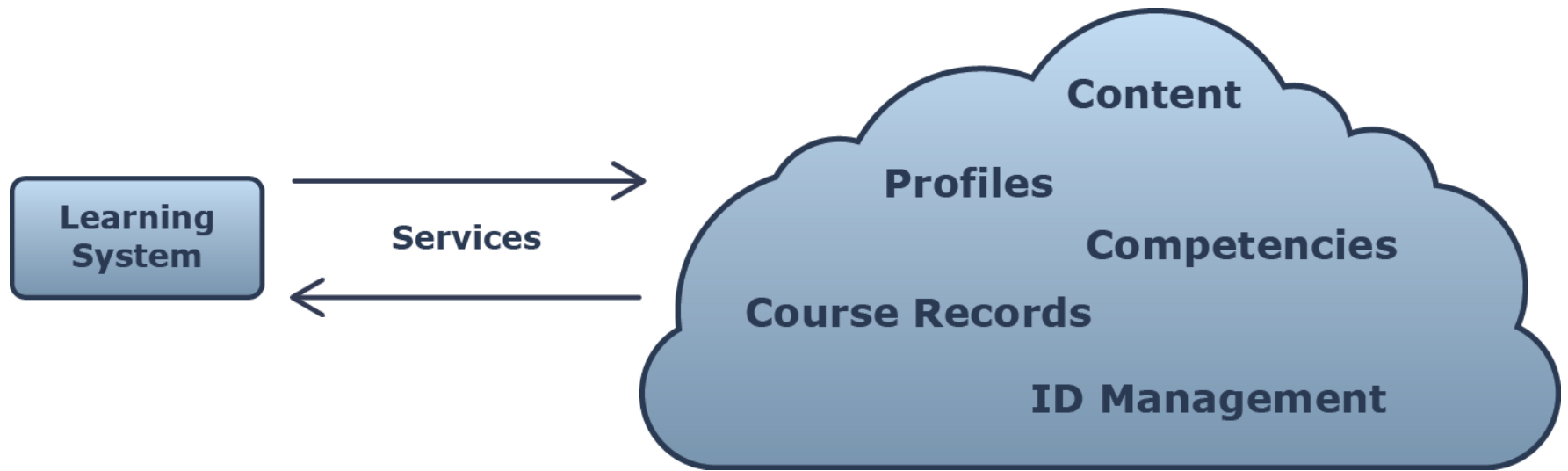


# What about my Learning Management System (LMS)?

Will we have one? What will it look like?



# Learning Management *Services*




*Software as a Service (SAAS)*

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