

# Building the Perfect (Knowledge Engineering) Syllabus

Cogan Shimizu



# Whoops!

- Scheduling Snafu!
- This is a very rushed partial look at what I wanted to do :)
- Open Curriculum, Education Gateway, Principle Components

*WE'LL BLAME ANNE  
BECAUSE SHE'S NOT HERE*



# An Open Curriculum

- Knowledge Engineering (and their artifacts) are quickly changing! But, they lack the
- Principled, but opinionated approach
- Community-based action
- <https://github.com/KGConf/open-kg-curriculum>



# A Learning Material Knowledge Graph?

- Eating our own dog food :)
- Different Media Types
  - Connecting Articles, Workshops, Tutorials, Meetings, Clubs, etc.

HAVE YOU EVER SHOWN UP  
TO A WORKSHOP AND HAD  
NO IDEA WHAT WAS GOING  
ON?



# Learning Components

- **Learning Objective**  
The specific topic or concept to be learned
- **Learning Path**  
A traversal over the Learning Material Graph
  - Starting Knowledge to a competency
- **Learning Outcomes**  
How do we evaluate knowledge and competency?

# Learning Objectives & Paths

- **Learning Objective**  
The specific concept or topic to be learned.

TANGIBLE OUTCOME



WHAT DO I NEED TO KNOW [IN ORDER TO] DEPLOY A KNOWLEDGE GRAPH?

# Learning Objectives & Paths

- **Learning Path**

A traversal over the Learning Material Graph

CURRENT KNOWLEDGE

+

LEARNING OBJECTIVE

I AM A NEW GRADUATE STUDENT, AND I WANT TO  
KNOW HOW TO WRITE AN ONTOLOGY.

# Learning Objectives & Paths

- **Learning Outcomes**

How to evaluate knowledge and competency?

A REALLY BIG OPEN QUESTION :)

CODE SANDBOXES? QUIZZES?

- Measuring competency frequency depends on the learner. A trained software engineer is probably less interested in quizzes.



THANKS!

Cogan Shimizu

[cogan.shimizu@wright.edu](mailto:cogan.shimizu@wright.edu)

[coganshimizu.com](http://coganshimizu.com)

Knowledge and Semantic Technologies Laboratory  
Wright State University