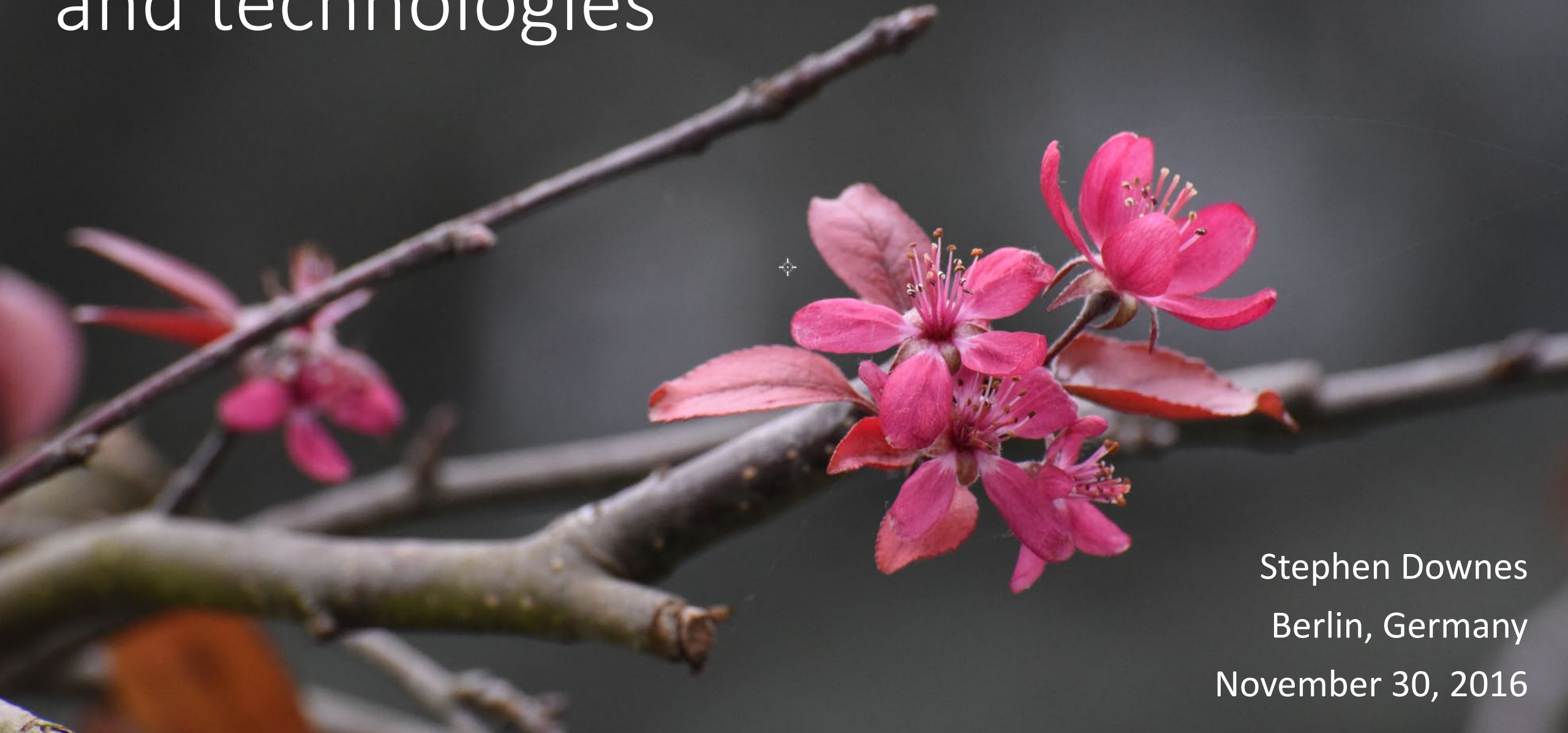


Personal learning environments and technologies



Stephen Downes
Berlin, Germany
November 30, 2016

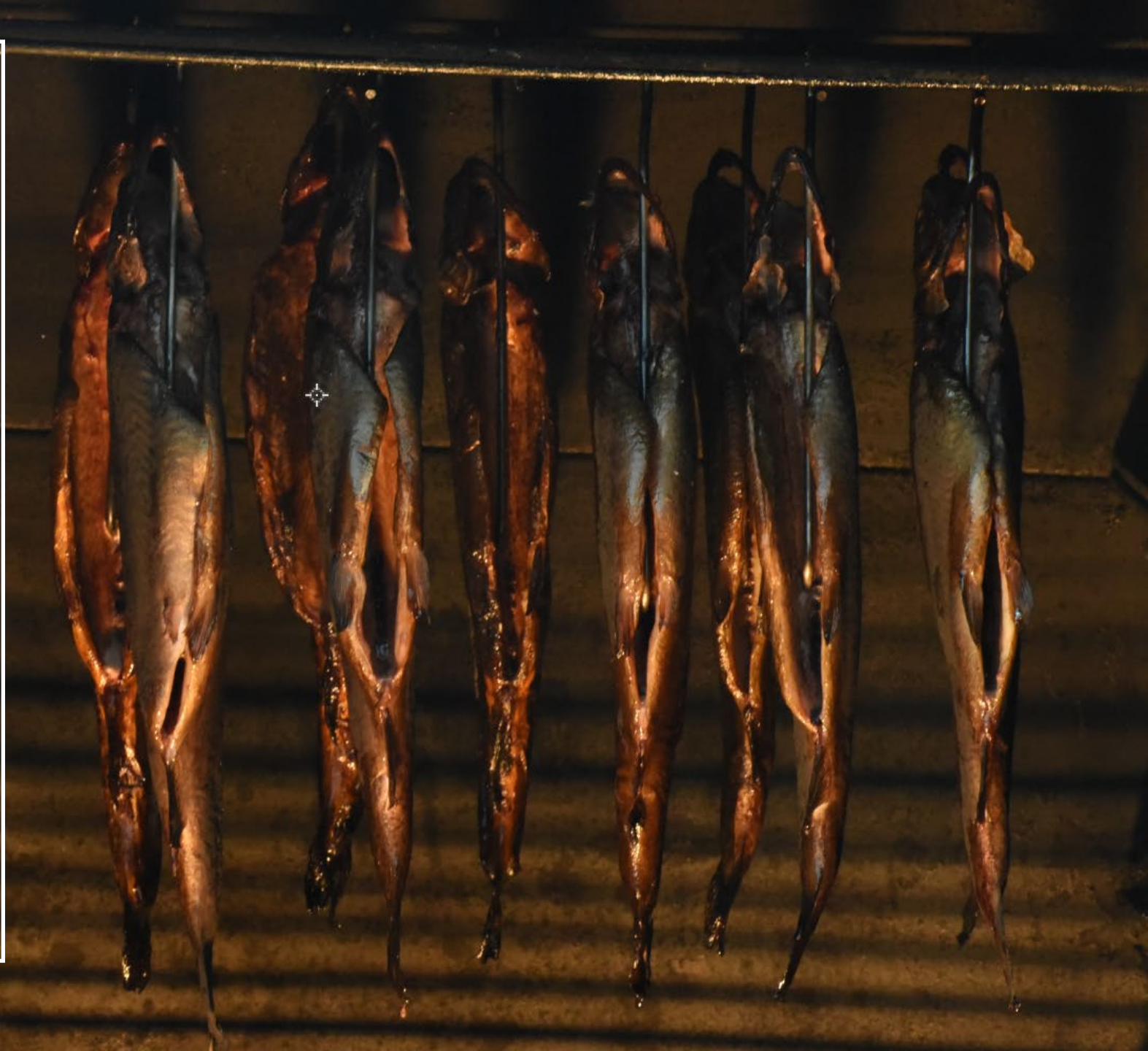
Current Focus in Learning Technology

- Competency Frameworks
- Personalized Learning
- Innovation & Skills Development

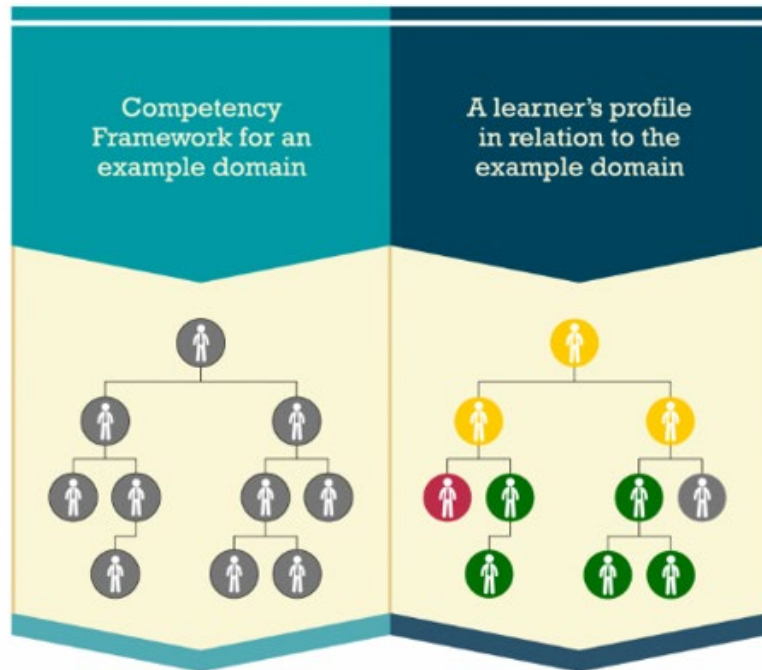
This demand-driven and outcomes-driven approach may not best serve student needs



Competency Frameworks



Competency and Skills System (CASS)



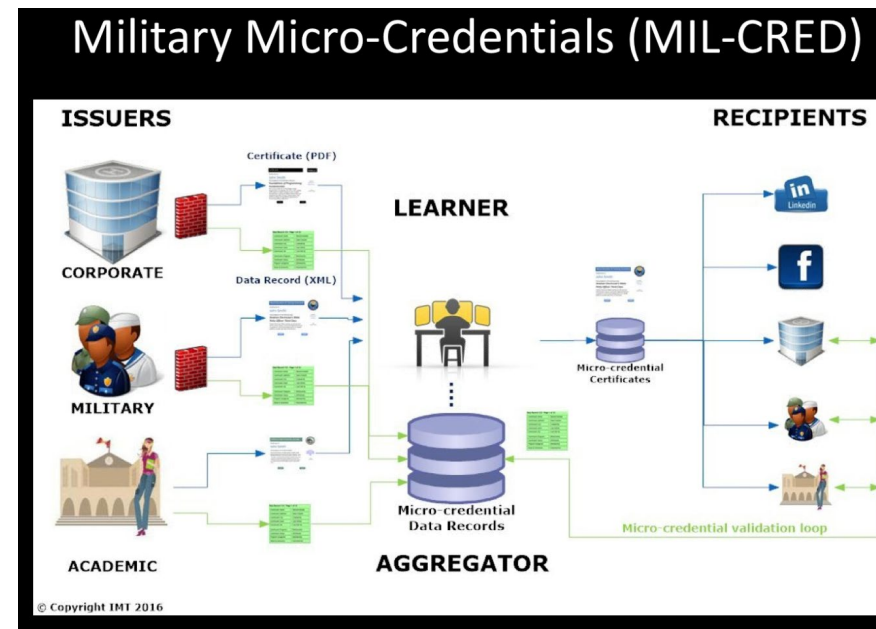
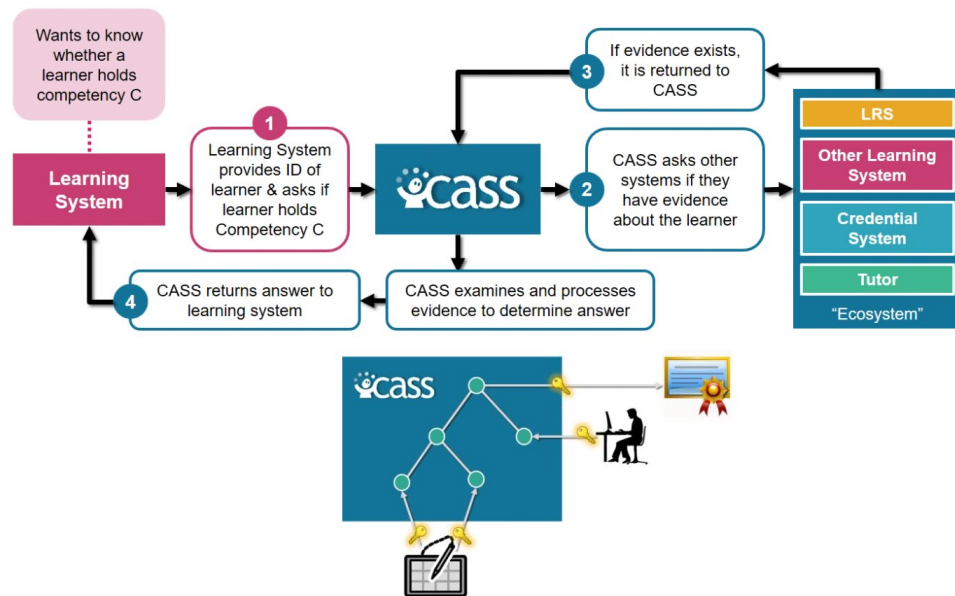
Competency Framework

- Learning outcomes,
 - learning objectives but also traits, etc., can be represented
 - Asserts – include roll-up rules
- Assertions – assertions of individual competency
 - Includes ‘who said so’ – source
 - Degree of confidence
 - Permissions, privacy and security model



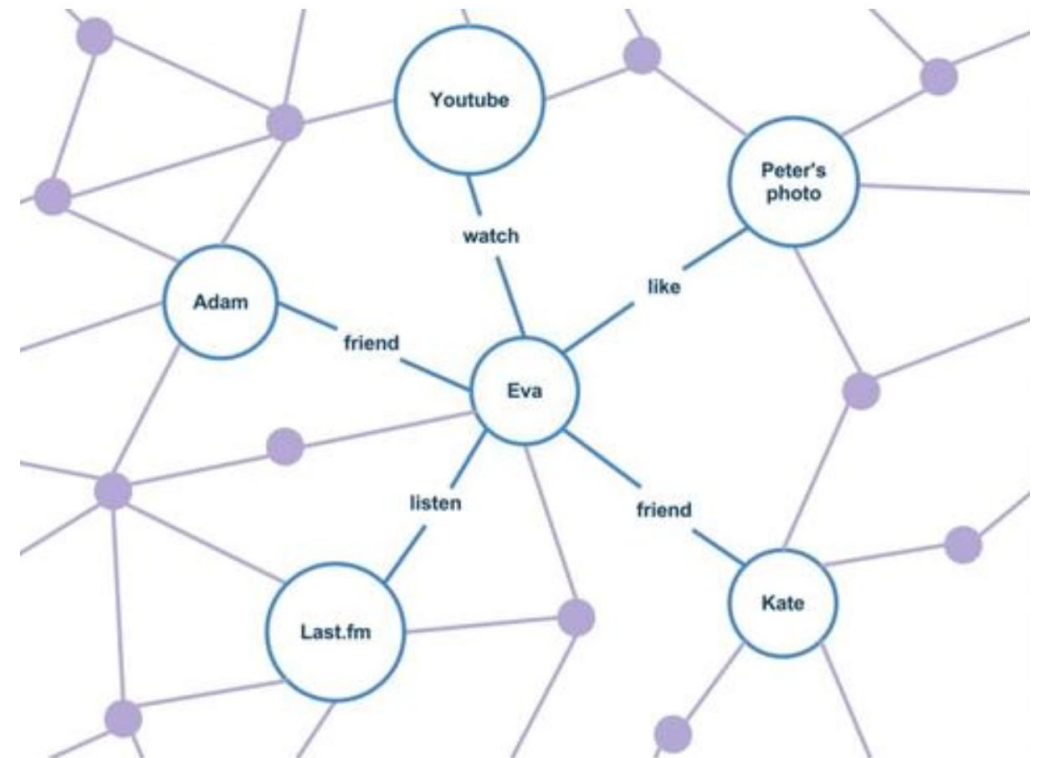
ADL and CASS

- Primary use of CASS is through REST APIs
 - Refer to competencies through globally unique GUIDs
 - Import / Export in standard formats



Whither the Semantic Web

- The web of obsoledge
- Old paradigms of documents, knowledge and keyword search.
- Documents - only a small sliver of the stuff that matters
- Information needs to find us, when we need it



<https://gigaom.com/2013/11/03/three-reasons-why-the-semantic-web-has-failed/>

<http://www.informationweek.com/software/information-management/semantic-web-business-going-nowhere-slowly/d/d-id/1113323>

Personalized Learning



Personalization

Recognition Networks

The "what" of learning



Strategic Networks

The "how" of learning



Affective Networks

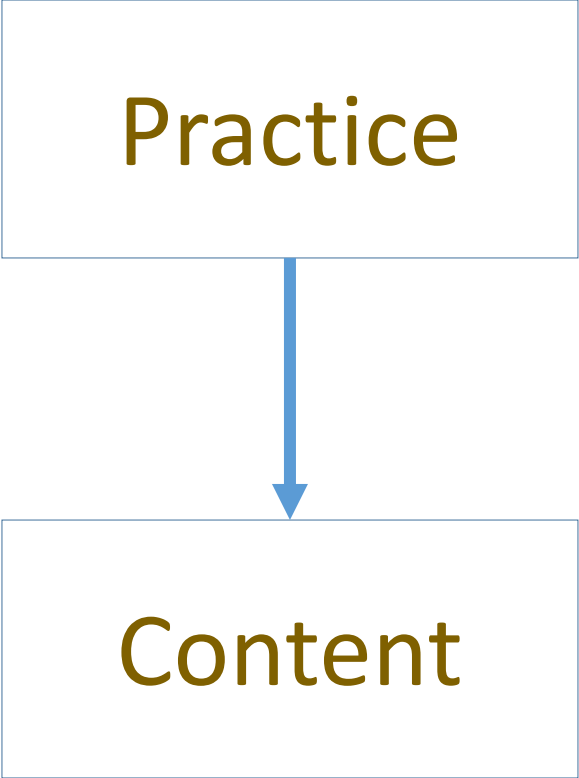
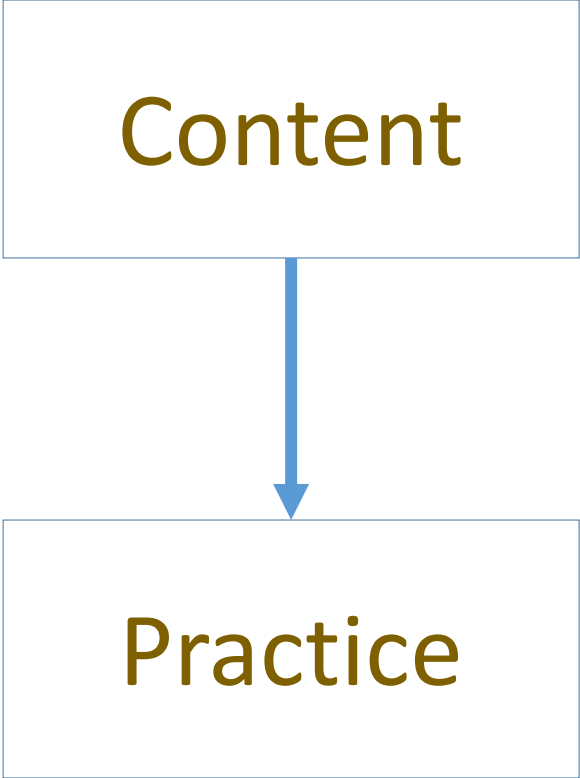
The "why" of learning



- What we learn
- How we Learn
- Why we learn

- **Rules-Based Events** (like notifications)
- **User Models**
- **Adaptive Learning**

Two Approaches...



Two Approaches...

Defines an ideal state

Content



Practice

TEST

Person tests you

Defines a desired state

Practice

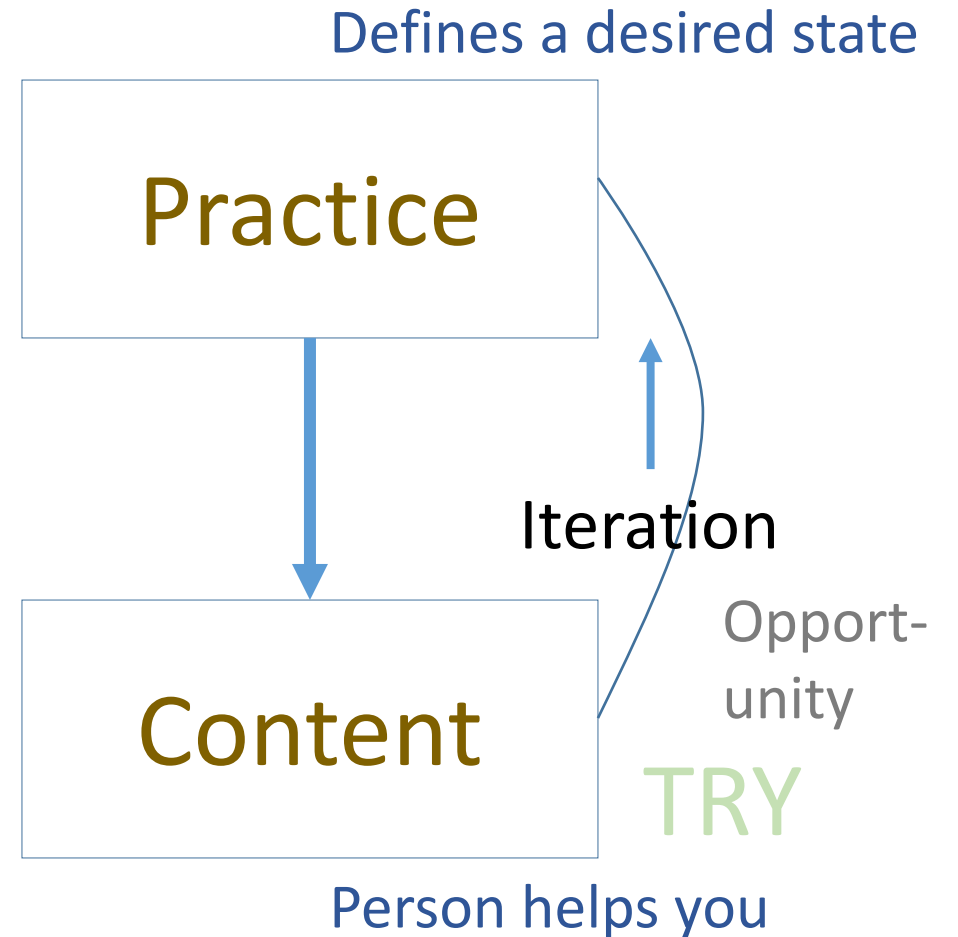
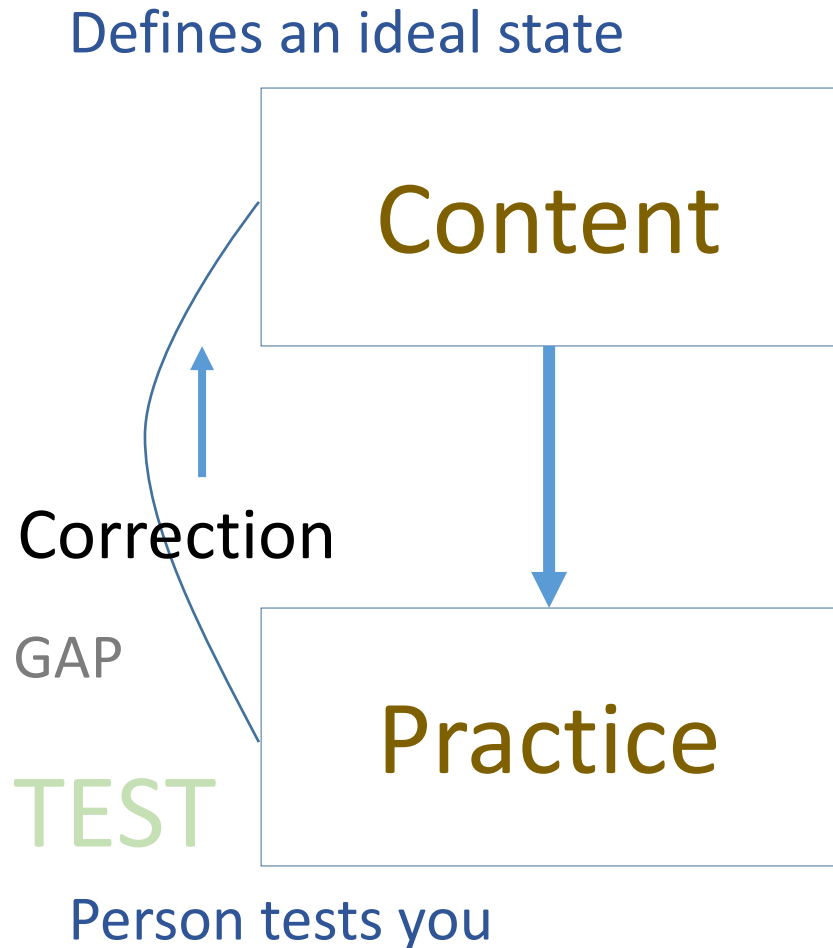


Content

TRY

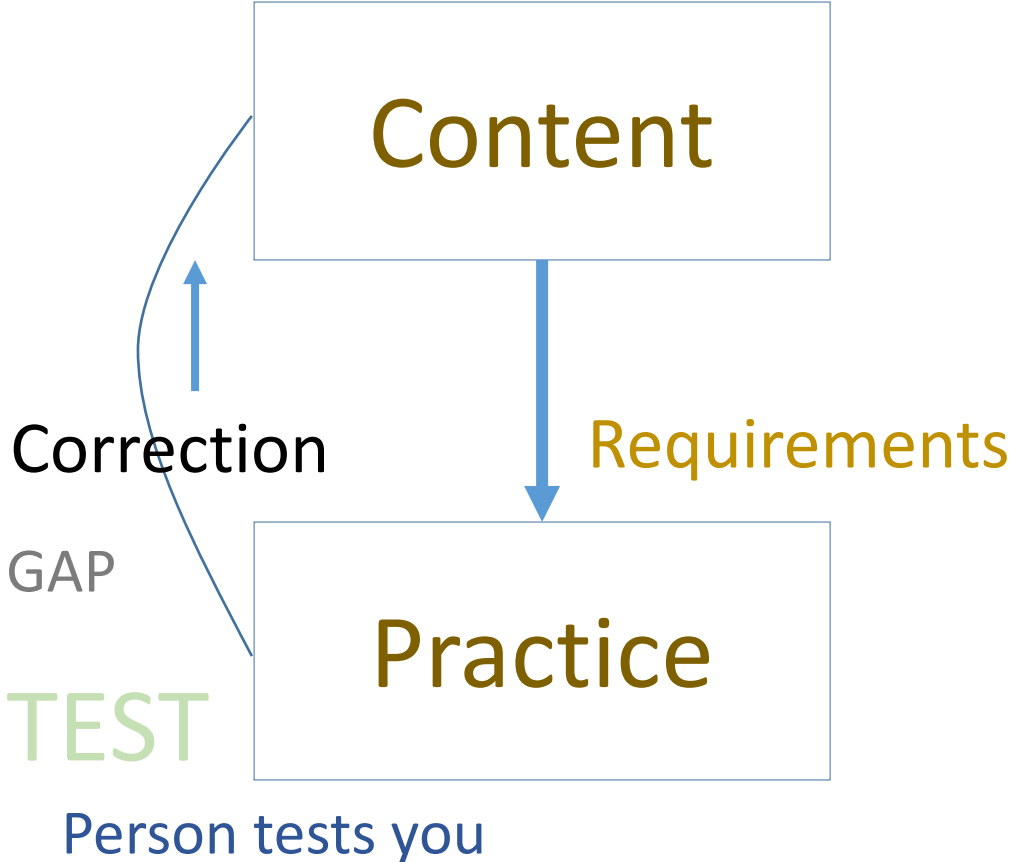
Person helps you

Two Approaches...



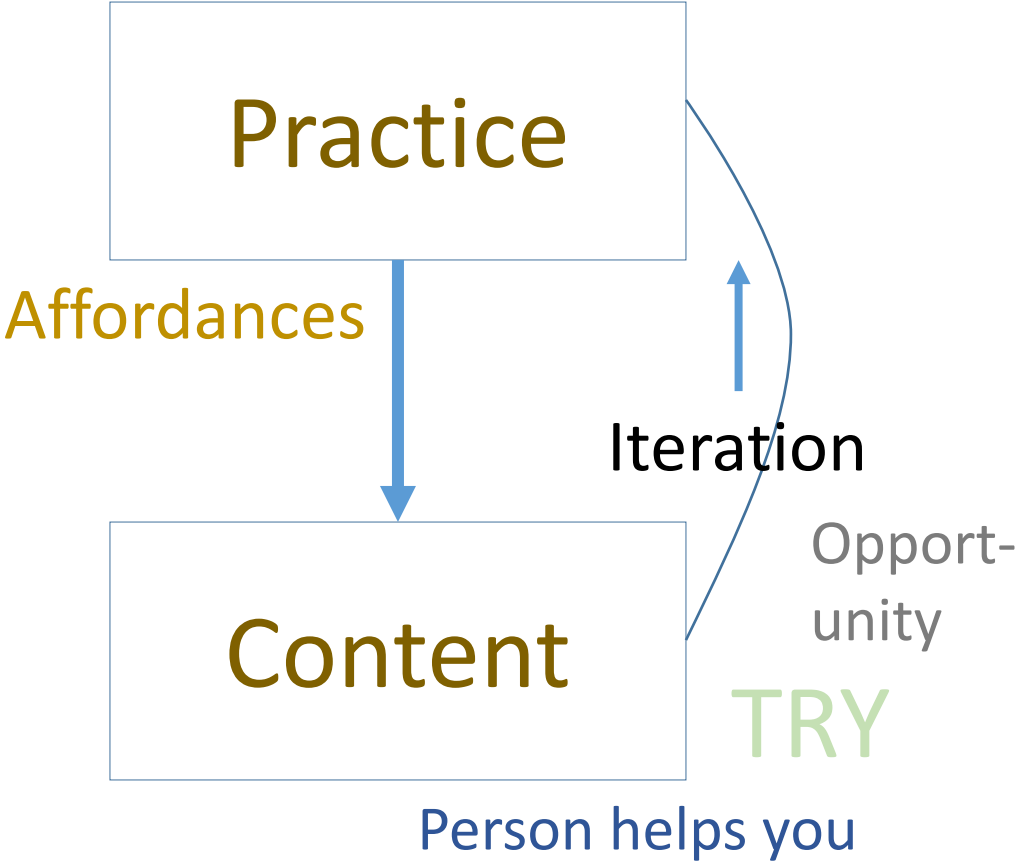
Library

Defines an ideal state



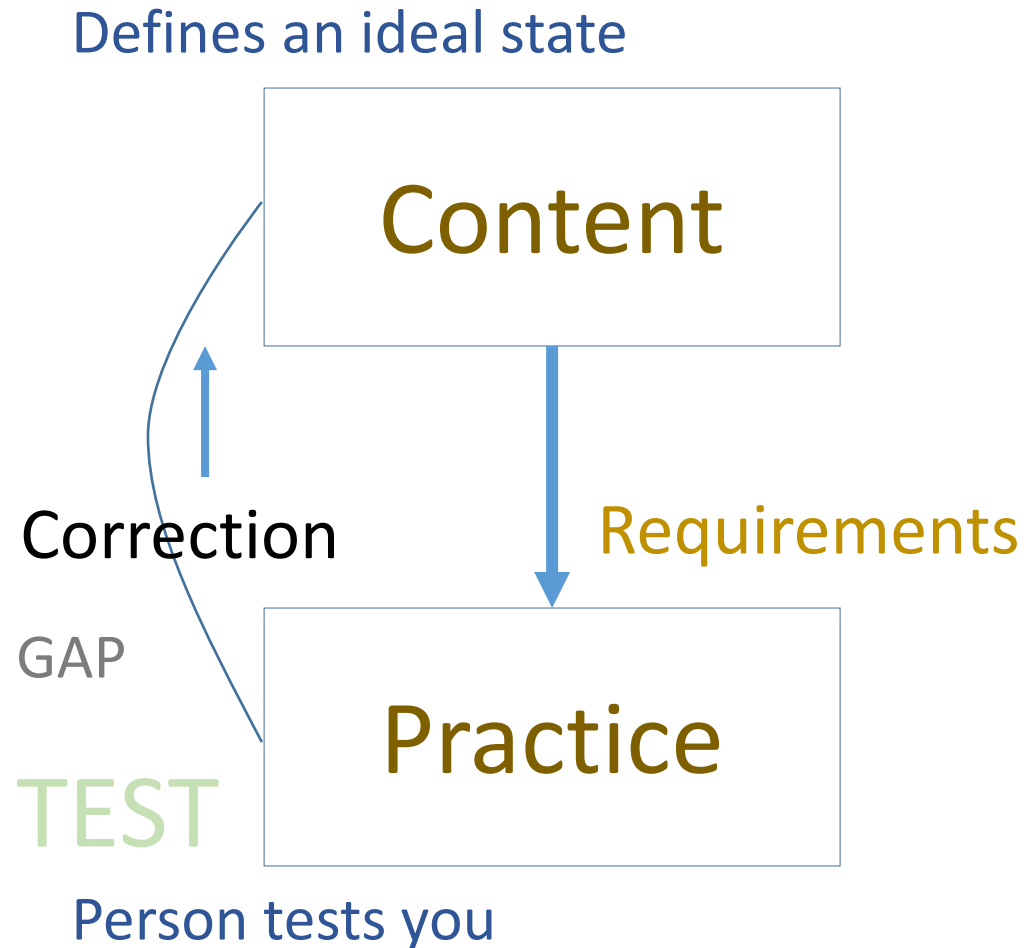
Environment

Defines a desired state



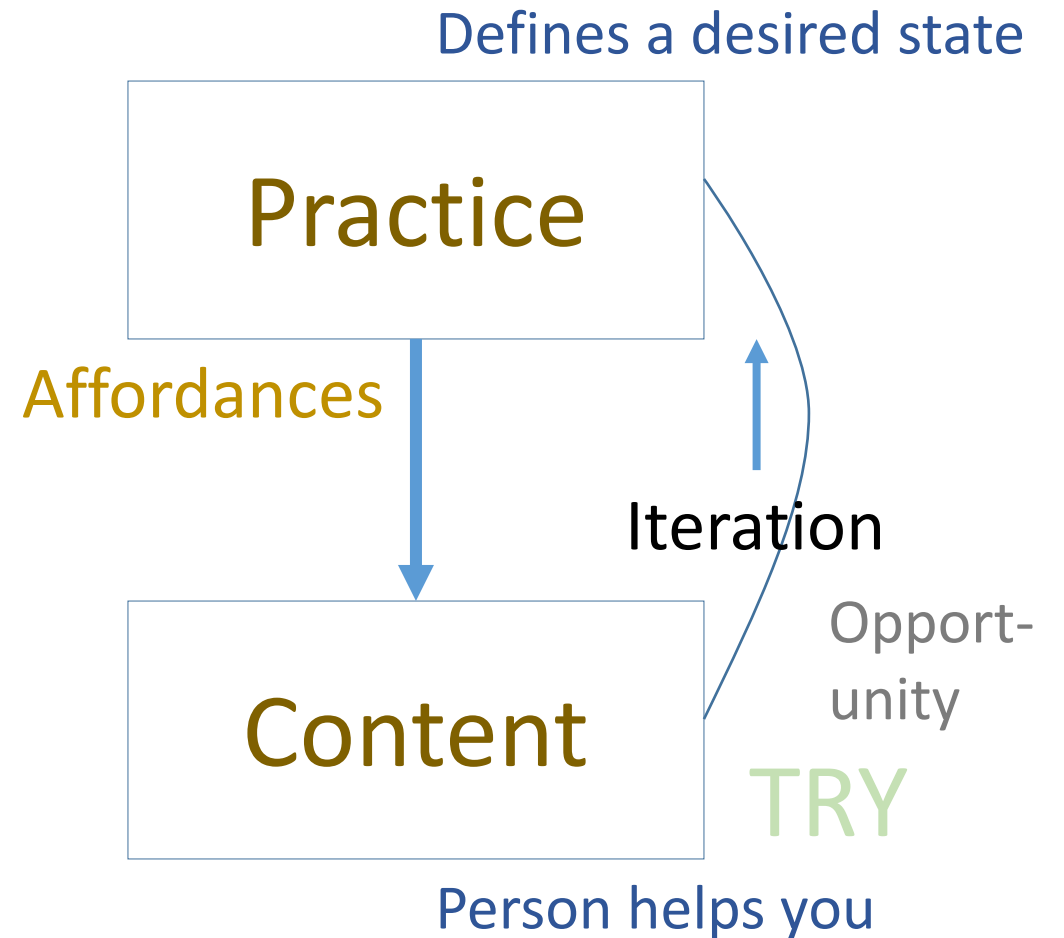
Personalized

We do for you



Personal

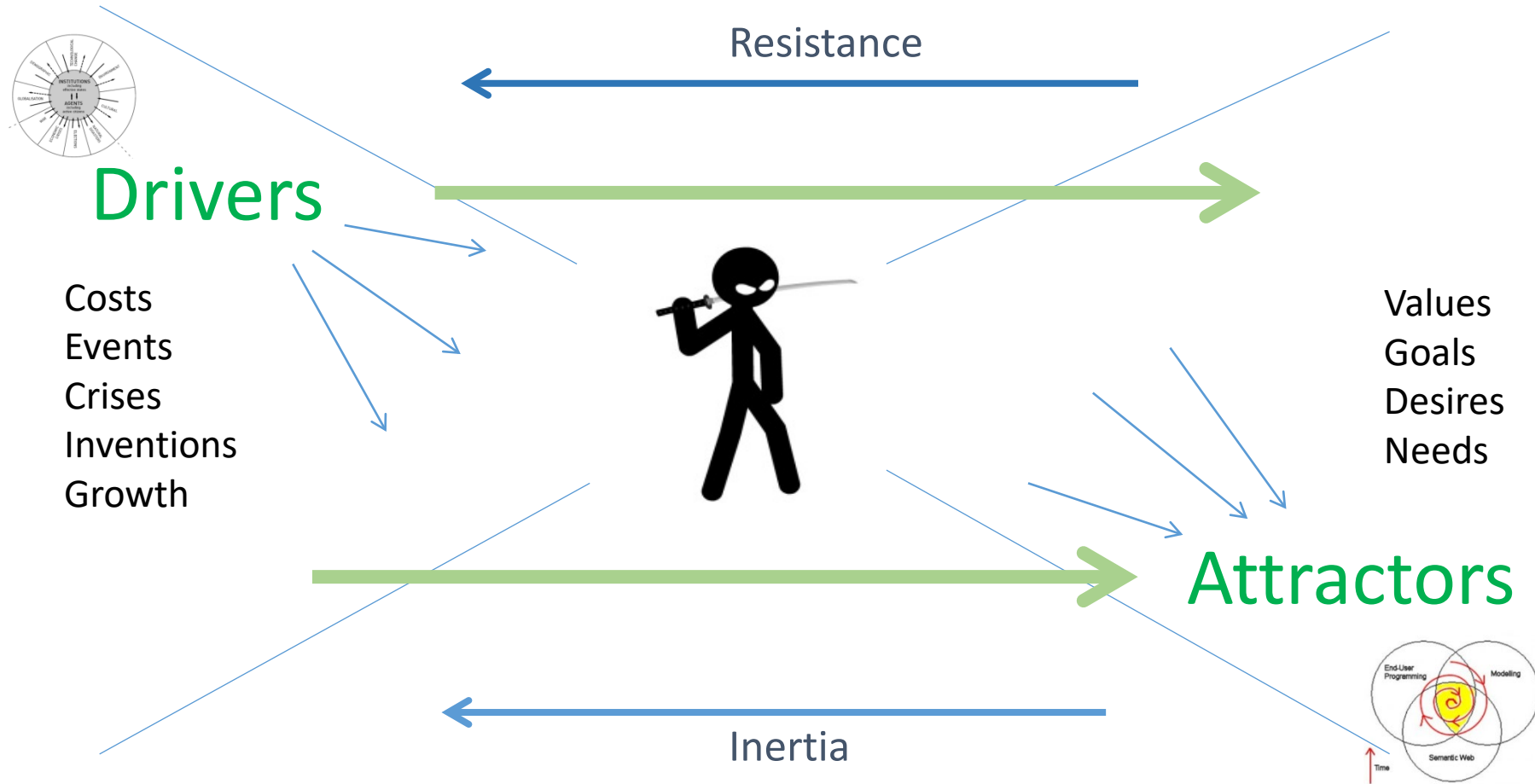
You do for yourself



Innovation and Skills Development



Causes of Change



Beyond Innovation



New

Drivers

Attractors



Idea +
Execution +
Benefit



Innovation



New

Benefit



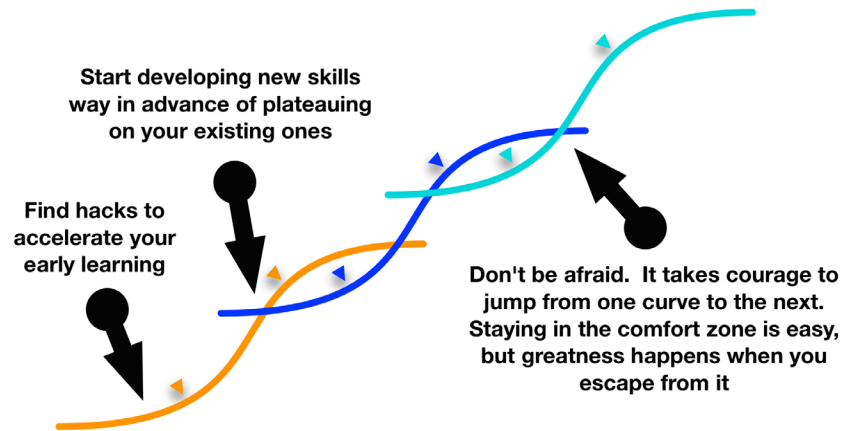
Idea +
Execution



Transformation

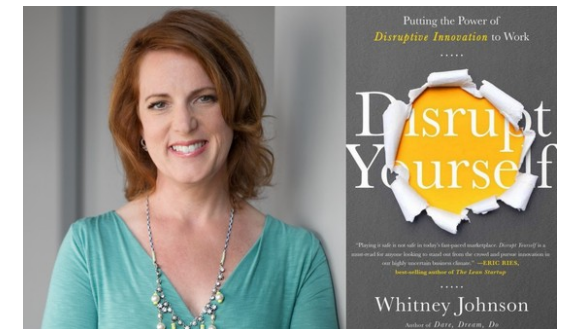
What is the new Benefit? An Example

Employees are expecting new results from workplace learning



The Evolution of The Employer-Employee Social Contract – Jesse Lyn Stoner

	Organization Offers	Employee Offers	Career Path	Company Attitude
The Original Contract	Job for Life	Loyalty	Ladder	Discourages career disruption
The New Contract	Opportunity to develop skills	Engagement	Ladder	Tolerates career disruption
The Next Contract	Opportunity for multiple careers	Creative, fresh thinking and enthusiasm	Wave Riding	Supports and encourages career disruption



The New Model of Work and Learning

- Sharing - create linked documents, data, and objects within a distributed network
- Contributing - employ social networking applications of the Web to facilitate group communication
- Co-creating - work through networks that facilitate cooperative group work toward common goals

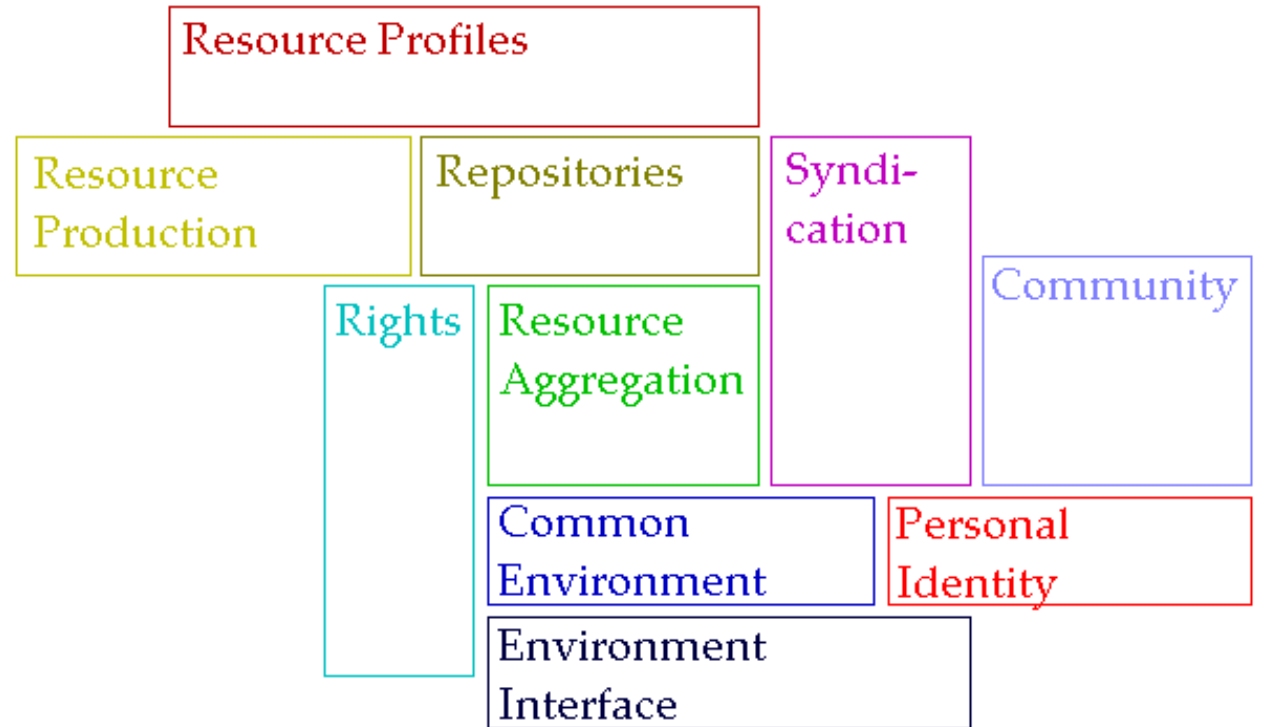
Some of the more promising trends...

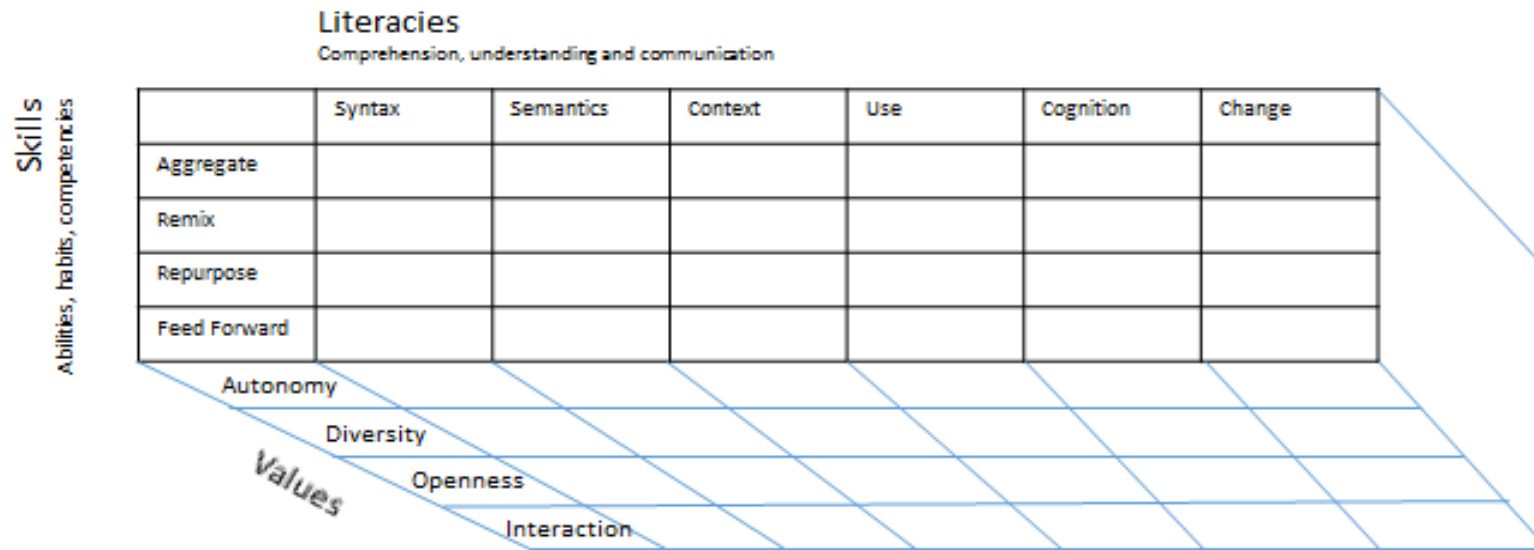
- Open online learning
- Learning analytics
- Personalized learning
- Competencies
- Digital badges
- Blockchain security
- Virtual personal assistants
- Internet of things
- Virtual Reality
- Games and Gamification



The Personal Learning Architecture

- Don't do things to people, help people do things
- If we have to ask "how do we motivate people" then we're taking the wrong approach
- Provide opportunities for **autonomy, mastery, purpose** – Pink





Method as Discovery:

- To discover something is to be immersed in it, to speak it and listen to people speaking in it
- To immerse oneself in the world is to try listening and to try speaking

Stephen Downes

<http://www.downes.ca>

