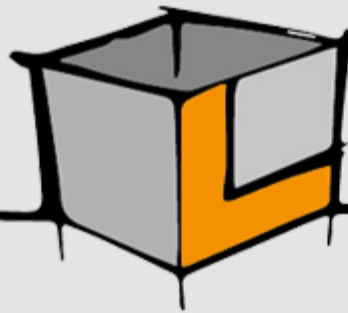


Theory-driven Learning Analytics and Open Learner Modelling: The Teacher's Toolbox of Tomorrow?



Michael Kickmeier-Rust
Knowledge Technologies Institute
Graz University of Technology
michael.kickmeier-rust@tugraz.at



EA'S BOX

Learning Analytics
Toolbox

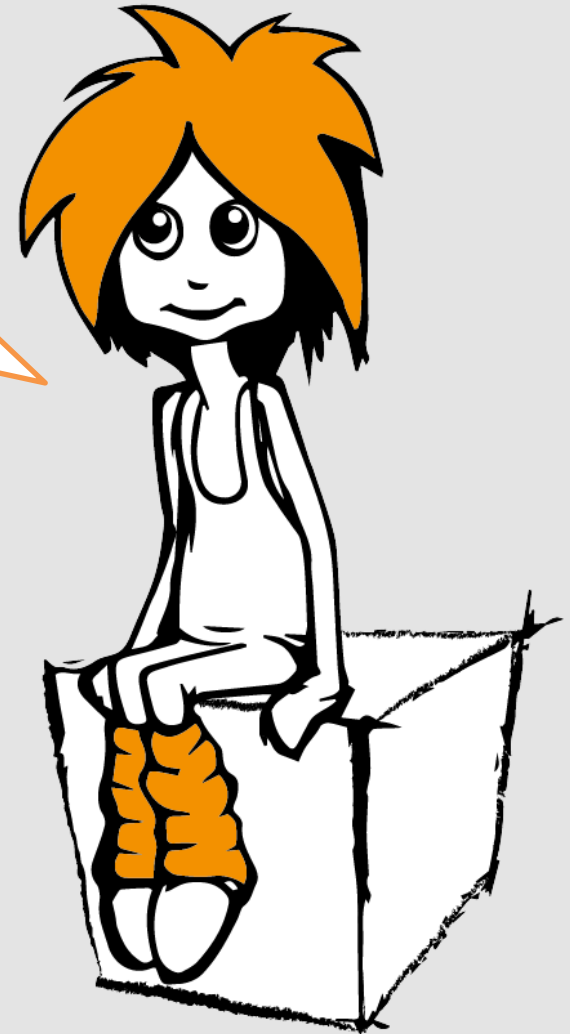
A Learning Analytics Toolbox



EA'S BOX

Learning Analytics
Toolbox

***LEARNING
ANALYTICS?
PERSONALIZATION?***





EA'S BOX

Learning Analytics
Toolbox

There is plenty of reasons ...





... we need analytics!

Educational assessment / data mining / learning analytics

- Identify characteristics, traits and states, needs of learners
 - Identify learning goals
 - Identify competencies / competency gaps
 - **and, in a next step, make psycho-pedagogically relevant actions**
-



• But **still** ...



EA'S BOX
Learning Analytics
Toolbox



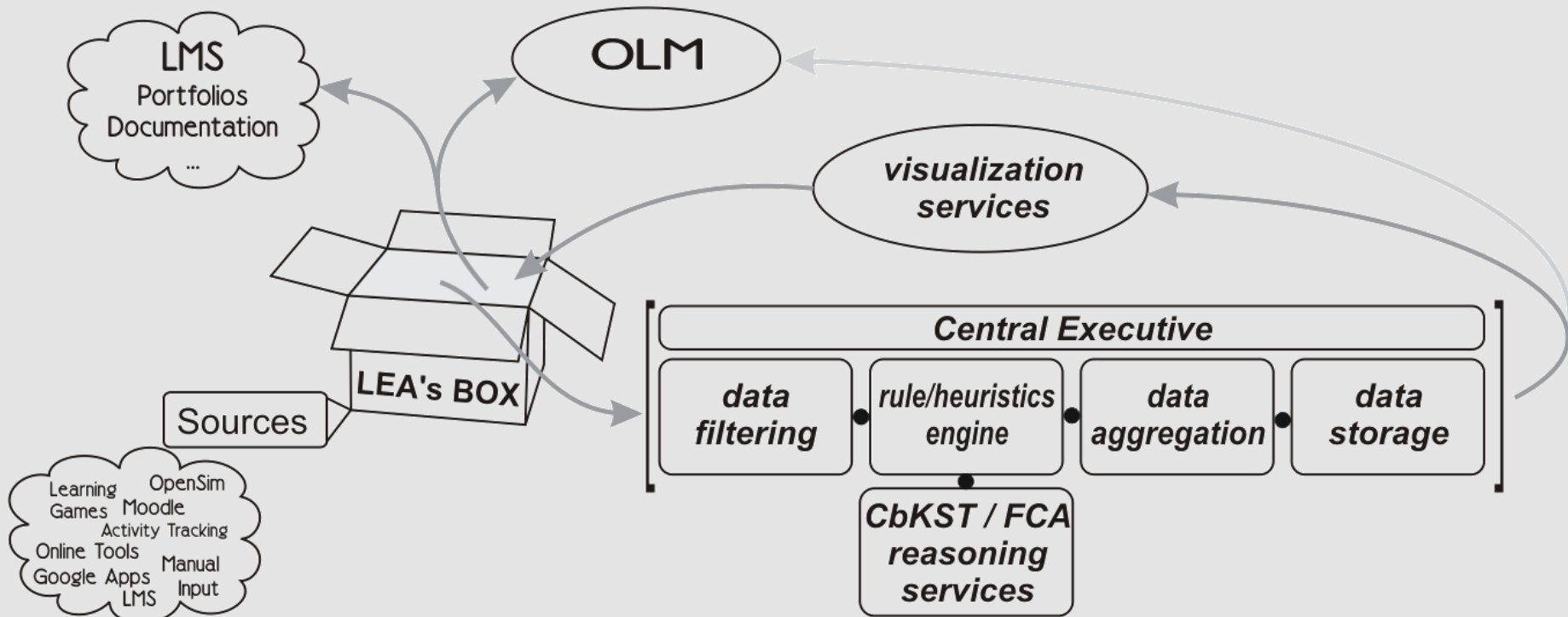
LEA's BOX: Teachers' Toolbox!?!





EA'S BOX
Learning Analytics
Toolbox

xAPI + CbKST + FCA + OLM



LEA'S LEARNING ANALYTICS



EA'S BOX
Learning Analytics
Toolbox

CBKST + FCA

MEET 'REAL' DEMANDS!



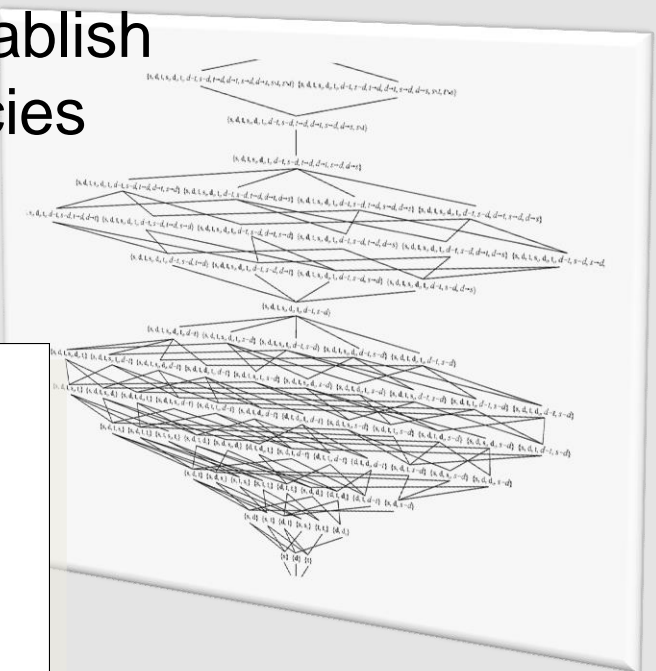
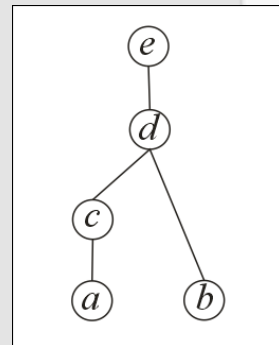
competence vs. performance
over-confidence vs. likelihoods
top down vs. bottom up

dashboards vs. something new



CbKST: All grey theory

- Domain analysis → decompose a domain into a catalogue of **atomic chunks** of *aptitude* (knowledge, ability, skills, competence)
- Finding the *natural course* → establish a relation between the competencies
- Deriving a **global structure** → competence structure
- Linking **behavior** to competence (structures) probabilistically

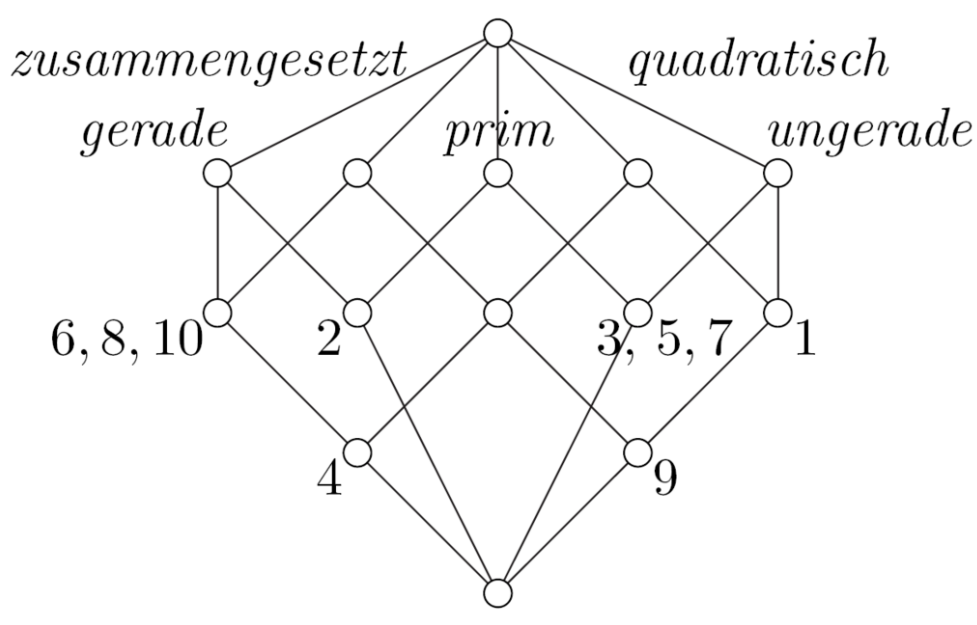




EA'S BOX
Learning Analytics
Toolbox

FCA (the ideal companion?)

FCA: Establishing a context of entities and properties

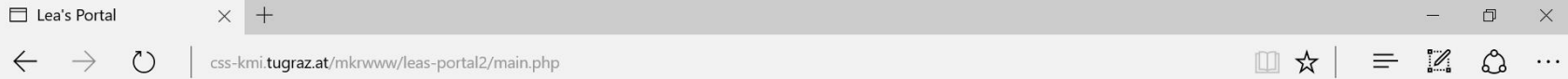


	<i>gerade</i>	<i>ungerade</i>	<i>prim</i>	<i>zusammengesetzt</i>	<i>quadratisch</i>
1		×			×
2	×		×		
3		×	×		
4	×			×	×
5		×	×		
6	×			×	
7		×	×		
8	×			×	
9		×		×	×
10	×			×	



EA'S BOX
Learning Analytics
Toolbox

LEA'S TOOLBOX



MY TOOLS	LEARNING SPACES	
MINDMAP	OLM	
SETTINGS	INFO	
FCA	CONTACT	HELP

Welcome Teacher to Lea's Box, your tool for Learning Analytics and Open Learner Modelling. The box provides tools for recording and linking data and various tools to analyze and visualize the results.

		Lea's API Interface
		myClass Light
		myActivities Light
		FCA Learning Analytics
		Evaluation and Comparison Flower



EA'S BOX

Learning Analytics
Toolbox

LEA's TOOLBOX

Lea's Portal x
css-kmi.tugraz.at/mkrwww/leas-portal2/main.php

EA'S PORTAL LPV Main Menu Log out

Training-Skill-Landscape

Learning-Skill-Landscape

Training-Skill-TagCloud

bird adaptation organism environment
evolution behavior species population
survival physiology change time diversity

Learning-Skill-TagCloud

environment ecosystem evolution
adaptation organism bird time population
change species behavior ecosystems

participation weighting: 0 1

Skill-Groups-Legends

Behavioral and Physiological Adaptations of Organisms ■
Comparing the Adaptations of Organisms in Different Ecosystems ■ Biological Adaptations: Bird Beaks ■



EA'S BOX

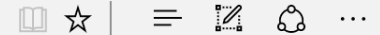
Learning Analytics
Toolbox

LEA's TOOLBOX

Lea's Portal



css-kmi.tugraz.at/mkrwww/leas-portal2/main.php



EA'S PORTAL

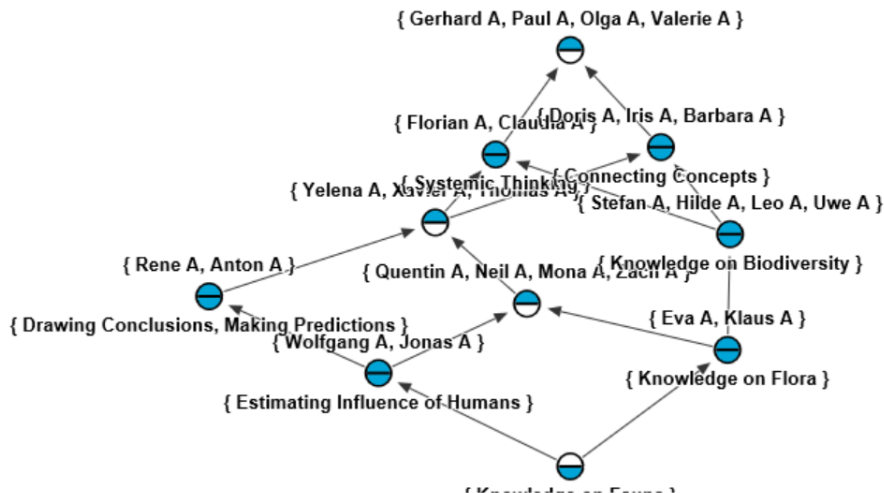


Taxonomy of 'Biology'

Show full Lattice

Select all concepts

Select a node to display
information about it



- Know
- Conn
- Drawin
- Estima
- Know
- Makin
- Syste
- Knowl



EA'S BOX
Learning Analytics
Toolbox

LEA's TOOLBOX

Lea's Portal css-kmi.tugraz.at/mkrwww/leas-portal2/main.php

EA'S PORTAL LPV Main Menu Log out

Open Learner Model t6 Teacher

Active Filters: all information

Home Skill Meter Table Smiley Faces Gauge Stars Histogram Word Cloud
Radar Plot Treemap Network Across Time Heatmap

Groups / Students

<input type="checkbox"/>	test	<input type="checkbox"/>	Albulena
<input type="checkbox"/>	fca_group	<input type="checkbox"/>	Alessio
<input type="checkbox"/>	fca_group2	<input type="checkbox"/>	Angelina
<input type="checkbox"/>	Speedreading Group	<input type="checkbox"/>	Anina
<input type="checkbox"/>	Flowers 1	<input type="checkbox"/>	Annika
<input type="checkbox"/>	Lesen und Schreiben (Test)	<input type="checkbox"/>	Bedirhan
<input type="checkbox"/>	TUGAPITEST	<input type="checkbox"/>	Benjamin
<input type="checkbox"/>	1x1group	<input type="checkbox"/>	Edon
<input type="checkbox"/>	Elementary Algebra Group	<input type="checkbox"/>	Elvis
<input type="checkbox"/>	Biology	<input type="checkbox"/>	Emilia
<input type="checkbox"/>	Flower CZ Learning 1	<input type="checkbox"/>	Hannah
<input type="checkbox"/>		<input type="checkbox"/>	Jolan
<input type="checkbox"/>		<input type="checkbox"/>	Lara
<input type="checkbox"/>		<input type="checkbox"/>	Laura Jule
<input type="checkbox"/>		<input type="checkbox"/>	Laurin
<input type="checkbox"/>		<input type="checkbox"/>	Lena

Skills meters are a one dimensional visualisation. It displays your level of competency similar to below:

① = The blue section represents your level of understanding.
② = The grey section shows the problematic part of your understanding.
③ = This is the name of the element that the skillmeter is related to. This can be a group you belong to, the information source that data could come from, or your own name which shows your over all progress.

Below is ④ skillmeter that has no information in it:

Example2

④ = When no evidence is present this results in a blank skillmeter.



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Evaluation studies

Public Speaking

1 – Public Dialogue



Název testování	Prázdne testy	Probihající testy	Vyplněné testy
SCATE AJ - LeasBox	0/1	0/1	1/1

Název testování	Prázdne testy	Probihající testy	Vyplněné testy
LEA'S BOX - testing	0/1	0/1	1/1



EA'S BOX

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Visit me at

www.leas-box.eu
[Facebook/LeasLearning](https://www.facebook.com/LeasLearning)

Michael Kickmeier-Rust

Knowledge Technologies Institute

Graz University of Technology

michael.kickmeier-rust@tugraz.at

