Knowledge Gap™

What's in your LMS?

analytikus
Through Machine Learning and AI Solutions, we empower educational institutions to increase their students’ success rate.

RETENTION – ATTRACTION – COMMITMENT - STUDENT SUCCESS
About us & Presence

We help institutions become more competitive by solving specific problems using Advanced Analytics.

Our products empower our customers by integrating Machine Learning and AI techniques for predictive, prescriptive and cognitive analytics.

Offices in the USA & Mexico. Presence through partners in Colombia, Panamá, Chile, Perú and Ecuador. Customers in +15 countries.
Some of our Higher Education References
What is Knowledge Gap™

Intro
Knowledge Gap is a specific use case of Cognitive Mining.
Why are we talking about Cognitive Mining?
Because acting on your information is challenging

2.5 quintillion bytes
Amount of new data created in the world per day

80%
of data in businesses is unstructured

$14,209 lost
per year per knowledge worker by companies due to information searches

Cognitive Mining

The process of systematically extracting (i.e. mining) knowledge from unstructured data using cognitive models.

Cognitive models simulate human-like capabilities. Think vision, speech, audio, knowledge, search, etc.
Cognitive Mining – use case example
What is Knowledge Gap™
A cognitive AI solution that helps identify the GAP between the professed objectives of every course against the lying latent content of the courses.

Unstructured content within your LMS
How it works?

LMS - Course
Unstructured Content

Course Objectives

AI Solution

Fully text-searchable
rich index

Knowledge GAP
Knowledge Gap Skills

Course Objectives

- Key Phrase extraction
- Organization entity extraction
- Face detection
- Custom skills

LMS - Course Content

- Key Phrase extraction
- Location entity extraction
- Persons entity extraction
- Language detection
- Landmark detection
- Printed text recognition

Cutting-edge AI

- Sentiment analysis
- Language Translations
- Tag extraction

Fully text-searchable rich index

Knowledge GAP identifies the level of completeness against every objective for all the content within the LMS.
Knowledge GAP

Once we have fully searchable and minable content, we can identify areas of opportunity to improve the content being provided to students.
Example – Knowledge Gap

Cognitive Content Scoring

Ranking

#1 BINS134
#2 BINS133
#3 CHEM134
#4 CHED201

Key Phrases

Chemical calculations

Basic knowledge of acids and bases

Solution equilibrium

Equilibrium constant

Chemical potential

Basic knowledge of acid-base thermodynamics

Free energy changes

Reaction rate

GIBB'S Free energy

Key Phrases by Score

CHEM134

Content

Chemical calculations

Instructions

Instructions

Required Week 15 Reading and Resources

Instructions

Instructions

Instructions

Instructions

Lab 14 Assignment

Lesson 8 Quiz

Chemical calculations

cc.profile cc.essay x:9 conj_scorerimbedded Yes conj.computer_scored No x:8 style="font-size:12px;" span.style="font-family:verdana, Geneva, sans-serif;" value="? What do your measured electrode voltages tell you? What might account for this discrepancy?&gt;&lt;/span&gt;&lt;/x:8&gt;&lt;/cc.essay.x:9 conj_scorerimbedded Yes conj.computer_scored No x:8 style="font-size:12px;" span.style="font-family:verdana, Geneva, sans-serif;" value="? When you measured the electrode voltages, you probably observed the cell voltage change slightly while you were observing it. Explain what is occurring at the electrode that causes the observed voltage to change?&gt;&lt;/span&gt;&lt;/x:8&gt;&lt;/cc.essay.x:9 conj_scorerimbedded Yes conj.computer_scored No x:8 style="font-size:12px;" span.style="font-family:verdana, Geneva, sans-serif;" value="? The cell is also related to the Gibbs free energy of a reaction, which is the number of electrons transferred in the balanced equation, E is the cell voltage, and F is the Faraday constant (96,485 C/mol).&gt;&lt;/span&gt;&lt;/x:8&gt;&lt;/cc.essay.x:9 conj_scorerimbedded Yes conj.computer_scored No x:8 style="font-size:12px;" span.style="font-family:verdana, Geneva, sans-serif;" value="? Knowing the answers to (a) and (b) above, how can one deduce the direction of spontaneity for a particular voltaic cell reaction by using only a voltmeter without doing any calculations?&gt;&lt;/span&gt;&lt;/x:8&gt;&lt;/cc.essay.x:9 conj_scorerimbedded Yes conj.computer_scored No x:8 style="font-size:12px;" span.style="font-family:verdana, Geneva, sans-serif;" value="? Cells in 1 volution (V) and decreasing Gibbs free energy (delta G).&gt;&lt;/span&gt;&lt;/x:8&gt;&lt;/cc.essay.x:9 conj_scorerimbedded Yes conj.computer_scored No x:8 style="font-size:12px;" span.style="font-family:verdana, Geneva, sans-serif;" value="? What are at least 2 possible sources of error in your experiment, and how could you correct for these sources in future detail?&gt;&lt;/span&gt;&lt;/x:8&gt;&lt;/cc.essay.x:9 conj_scorerimbedded Yes conj.computer_scored No x:8 style="font-size:12px;" span.style="font-family:verdana, Geneva, sans-serif;" value="? Errors are inevitable. Think it through, and figure out how to address, or at least minimize, any errors you make."
Demo

Cognitive Mining
Thank You!

We are at your disposal to provide you with more information about this proposal if required. We are convinced that we have the experience and competencies to make this Project with the University a success.

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