



PUBLIC SECTOR SYMPOSIUM

BRUSSELS | MARCH 28, 2023

BMT101

Achieving tailored, effective, and frictionless learning through data innovation

Rafael Luengo

Chief Data Officer and Learning Factory Director of ODILO



Agenda

1. Context – What is ODILO?
2. Why is data innovation so important to us?
3. Building data innovation through AWS
4. Success cases
5. What about the future? AI in Ed-Tech

1. Context – What is ODILO?

“We aim to empower everyone to become their best version through unlimited, frictionless and efficient learning”

Rodrigo Rodriguez

Founder and Executive Chair of ODILO

Context - What is ODILO?



Unlimited learning ecosystem in your pocket



Unified access to +4M contents
Multi-format, Multi-language, All-in-one



Customized user experience
Branding, Recommendations, Profiling



Frictionless learning experience
Multi-device, Offline learning, Synchronization



Learning paths with innovative methodologies
ODILO CREATE, build your own training, Integration



Data to recognize achievements and improve efficiency
User statistics, BI performance monitoring, AI

Where does ODILO come from?

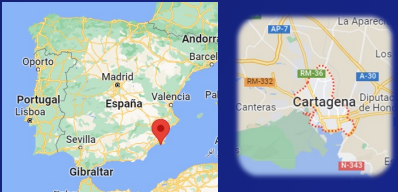
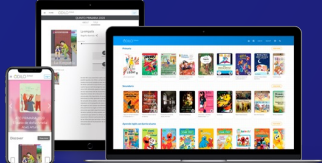
2011

2023



Content digitization for libraries

Unlimited and personalized learning ecosystems



Start up founded in Cartagena, a small city in Spain

Multinational company that operates in +50 countries



Family work environment of about 20 people

Specialized teams with +300 people of +20 different nationalities



Key Figures and clients



+170 M

**SINGLE USERS
ON ODILO
PLATFORMS**



+8,000

**INSTITUTIONS
USING ODILO**



+4 M

**DIGITAL
TITLES
AVAILABLE**



+6,000

**CONTENT
PROVIDERS**



+50

**COUNTRIES
LEARNING
WITH ODILO**

SCHOOLS - Children's education



KB national library of the netherlands



LeemosCLM



Generalitat de Catalunya



Plan Ceibal

UNIVERSITIES - Youth education



UNIVERSIDAD COMPLUTENSE MADRID



Massachusetts Institute of Technology



UNIVERSIDAD BSALA MANCA



UNIVERSIDAD DE LASALLE



IMF Business School



香港大學 THE UNIVERSITY OF HONG KONG



CORPORATE - Adult education



Context - Speaker



RAFAEL LUENGO
ODILO's CDO &
LEARNING FACTORY DIRECTOR

Efficient

Analytical

Realistic

Chief Data Officer



Creative

Imaginative

Idealistic

Learning Factory
Director



2. Why is data innovation so important to us?

Why is data innovation so important to us?

At ODILO we realized a while ago that to really offer a differential value in the Ed-tech industry, we should not only offer the best environment and content, but also provide data that allow users to understand the real impact of their actions and help them to adjust their learning strategies.

- ? **Which strategies are working?**
- ? **What level of progress are users achieving?**
- ? **Where are they having difficulties?**
- ? **What content is being most successful?**

However, building a robust data strategy is neither simple nor fast, but in start-up environments you are required to be fast and efficient. Investing the time and brainpower to make our solutions scalable and sustainable is non-negotiable.



How do we manage and use data in ODILO?

DATA SOURCES

Content Marketplace

Product

Sales

Finance

People

External Sources

DATA PROCESSES

Ingestion

Cleaning and harmonization

Optimization for reporting

DATA CONSUMPTION

Standard Client BI

Customized Client BI

API Data Sharing

ODILO's official reports

ODILO's internal reports

Artificial Intelligence

What are the main data challenges we face?



DATA MATURITY

Increase the level of data literacy within the company and our customers.

Less data allow to gain better understanding.



DATA QUALITY

Sales processes have not been designed from a data-driven perspective.

Standardize processes to improve data quality.



DATA PROCESSES

Sub-optimal tactical solutions that solve the initial request but generate endless vulnerabilities and huge operational inefficiencies.

Build strategic data processes.



HISTORICAL DATA

Fast product and business evolution leads to inconsistencies in the historical data series.

Static data record with product evolution milestones.



DATA INNOVATION

Daily workload puts innovation on the back burner.

People in data team devoted to innovation.

3. Building data innovation through AWS



Building an Ed-Tech solution

Today we have more technological innovation than ever before, thousands of options to choose from to implement an IT module of our infrastructure, more people trained in technology than ever before. And yet, we are often more lost than ever when it comes to designing our strategic technology infrastructure plan.

If we add to this general context that in our case we were born as a book and document digitization company, we grew as a digital library and now we offer personalized learning environments, the technological spaghetti we could have is significant.

Despite all this, and largely due to the support and advice provided by AWS, we have managed to tame the monster.

We currently have a stable and reliable IT infrastructure based on AWS, that supports more than 3M active daily users in more than 50 different countries.

We use more than 40 AWS services

Security & Cloud Governance



Product Support



DevOps



Data



What value does AWS add to us?

ODILO's DATA CHALLENGES



DATA MATURITY



Comprehensive documentation, training sessions and advisory



DATA QUALITY



Easy to build data quality rules and notifications



DATA PROCESSES



Allows to build reliable and cost-efficient processes



HISTORICAL DATA



Flexibility to implement and combine different data models



DATA INNOVATION



Proactivity and willingness to develop innovative projects with us

4. Success Cases



National Library of a European country

Objective: to complement the physical book lending service that the country's public libraries provide to their users, with the digital content available in the ODILO catalog

Region



**CENTRAL
EUROPE**

Target audience



**ALL AGE
GROUPS**

Number of users

~ 500,000

Challenges

- High user traffic forced us to strengthen our technical infrastructure
- High traffic also led to concurrency problems
- Client demand for up-to-date metrics

Achievements

- ~ 9 million learning resources consumed with an average of 19 resources per user per year
- + 40 million hours dedicated to learning, with an average of more than 80 hours per user per year

Government of a Central American country

Objective: to deploy a national English language training plan that combines synchronous sessions with asynchronous efforts and that allows reaching all regions of the country

Region



**CENTRAL
AMERICA**

Target audience



**10-16
YEARS
OLD**

Number of users

~ 7,000

Challenges

- Limited internet connectivity in certain regions
- Need to provide student progress data to teachers so they could more actively manage training plans and their contact with the students' families

Achievements

- ~ 5,000 students have obtained their English academic degree thanks to the joint efforts of the ODILO team and the national government
- English courses were successfully delivered in regions where this had not been possible before

Support for Ukraine

Objective: to support Ukrainian people, and in particular young people whose educational plans had been interrupted by the war, by providing them with a free learning platform

Region



**EASTERN
EUROPE**

Target audience



**ALL AGE
GROUPS**

Number of users

~ 6,000

Challenges

- To have real-time data on the effectiveness of media campaigns to maximize the number of people benefiting from the support

Achievements

- ~ 6,000 Ukrainians were able to continue their education through ODILO learning environment
- + 50,000 learning hours were consumed

5. What about the future? AI in Ed-Tech

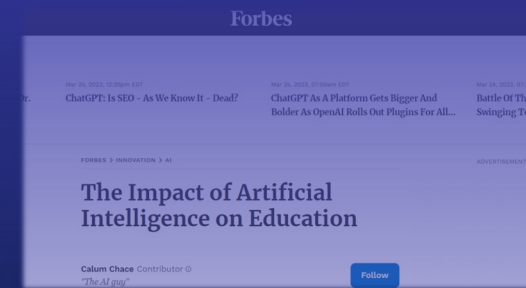
What is the future of education?

If we had asked this question 6 months ago, perhaps the answer would be a little more controversial, but the reality is that today talking about the future means talking about artificial intelligence (AI).

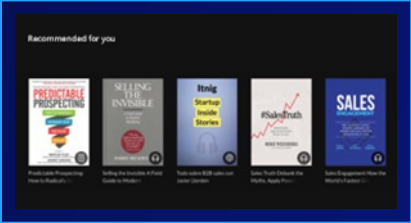
In the education sector, AI has arisen as a disruptive element that shakes the most solid pillars of our system. Will students use AI to do their homework? So how will they learn? Should we change the paradigm in education? What should we teach in a world dominated by AI?

It is difficult to anticipate what the final consequences will be, but what seems certain is that times of change are coming, and therefore only those who adapt best will survive.

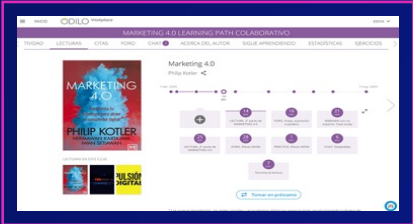
What is clear to us at ODILO is that the fuel that sustains IA models is data. An IA without data neither learns nor evolves. That is why our focus is on leveraging the data we have to get the most out of AI solutions.



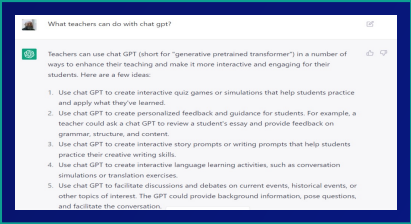
AI opportunities in Ed-Tech sector



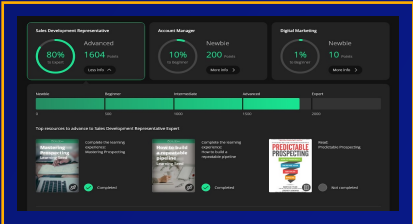
TAILORED RECOMMENDATIONS OF LEARNING CONTENT



CREATION OF ON-DEMAND LEARNING CONTENT



ACCURATE ASSESSMENT OF LEARNING ACHIEVEMENTS



CANDIDATE PROFILING BASED ON LEARNING ACHIEVEMENTS

Any question?



Thank you!

Rafael Luengo Ruiz

 [linkedin.com/in/rafaelluengo](https://www.linkedin.com/in/rafaelluengo)



Please complete the session survey in the mobile app