



Open Education Analytics

KEY DATA AND AI USE CASES NEEDED IN EDU



Real Time State and National Reporting



Digital Learning Insights and Research



Program and Investment Evaluation



Predicting At Risk and Successful Students



Verified Credentials and Learner Records



Personalized Learning Pathways



Datasets are dispersed and poorly governed



Concerns over data privacy and ethical use of AI



Low organizational expertise in learning analytics and AI



Getting started is overwhelming

EDUCATION'S CHALLENGES WITH DATA AND AI

What is Open Education Analytics



OPEN-SOURCE
TECHNICAL
RESOURCES



SKILLS AND
TRAINING ON DATA
ENGINEERING AND
DATA SCIENCE



PRINCIPLES OF
RESPONSIBLE
DATA AND AI



COMMUNITY OF
EDUCATION
SYSTEMS
DEVELOPING
SHARED USE CASES

[Get Started](#)[Contribute to OEA](#)[OEA Partners](#)[Responsible AI](#)[Skills and Training](#)[Inspiration](#)[GitHub](#)

Using data to support every learner from classroom to career

Open Education Analytics (OEA) is an open source community coordinated by Microsoft Education. We collaborate with education systems across the world to develop modern data intelligence capabilities.

Get started with the modern data estate using the OEA reference architecture, open source modules, training, and use cases. Ensure responsible data and AI practices with our OEA toolkit. Join our community and contribute education data solutions.

[Get Started](#)

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Data Engineers



Data Scientists



Analysts



Learners, Educators



School Leaders, Researchers



Data Sources



Student Information Systems



Digital Learning Data



Education Outcome Data

Use Cases



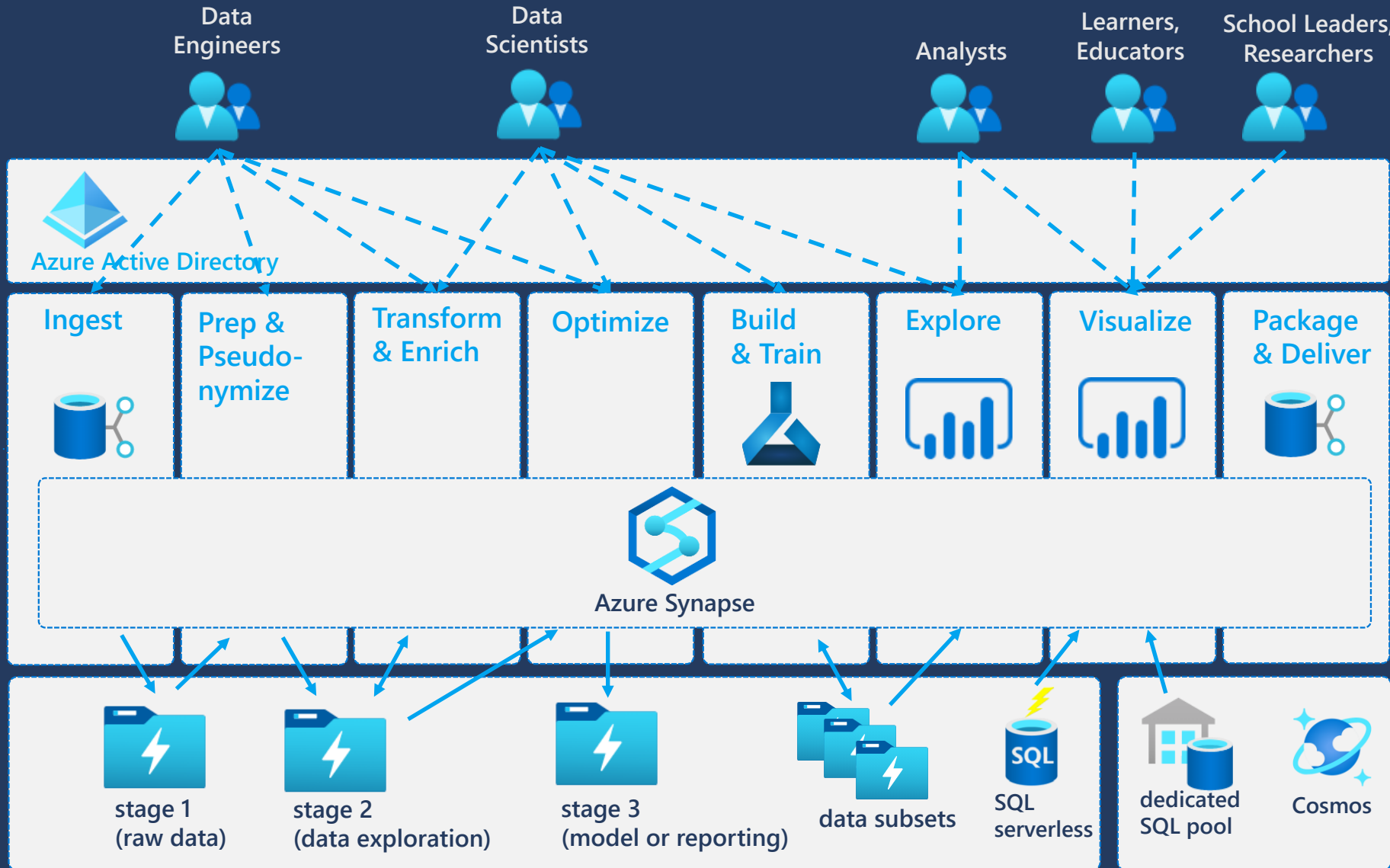
Real Time State or National Reporting



Digital Learning Insights and Research



Program and Investment Evaluation



Discover & Govern Data



Azure Purview

Open-Source Modules for
Key Education Data
Sources



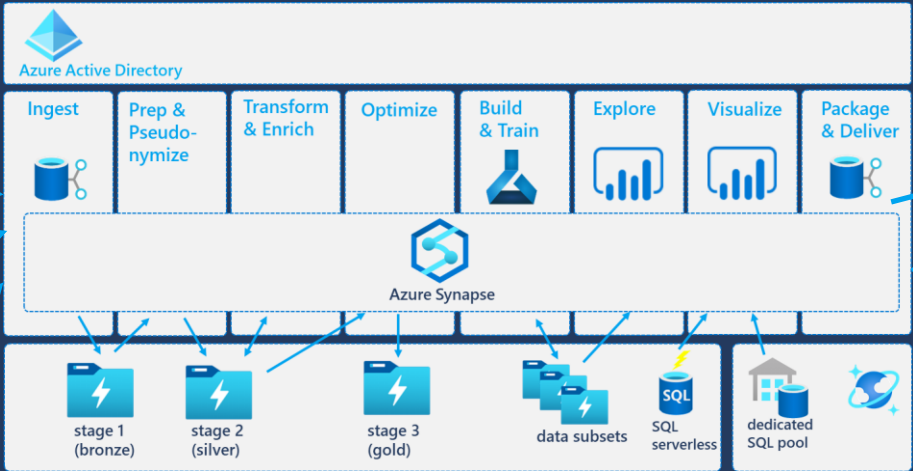
Student
Information
Systems



Digital
Learning
Data



Education
Outcome
Data



Open-Source Packages
for Common Education
Use Cases



Real Time State or
National Reporting



Digital Learning
Insights and
Research



Program and
Investment
Evaluation



This project provides open source Education Analytics solutions built on Azure.

openeducationanalytics.org/

microsoft higher-education k12
highered k12education synapse-analytics

Readme

View license

Modules with data pipelines for common edu data sources

Framework and Infrastructure assets for key edu use cases

Reference Architecture Setup Scripts (Azure Synapse)

Setup

You can setup this fully functional reference architecture (which includes test data sets for basic examples of usage) in 3 steps:

1. Open cloud shell in your Azure subscription (use ctrl+click on the button below to open in a new page)



2. Download this repo to your Azure clouddrive

```
cd clouddrive
git clone https://github.com/microsoft/OpenEduAnalytics
```

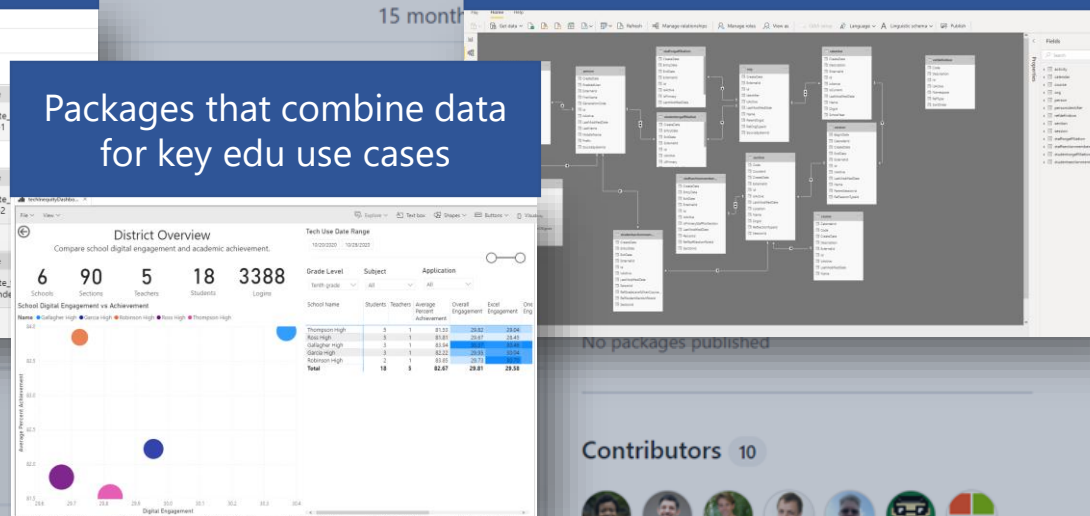
3. Run the setup script like this (substitute "mysuffix" with your preferred suffix, which must be less than 13 characters and can only contain letters and numbers - this will be used as a suffix in the naming of provisioned resources):

```
./OpenEduAnalytics/setup.sh mysuffix
```

(You can refer to this [setup video](#) for a quick walkthrough of this process)


Packages that combine data for key edu use cases

Education Analytics





SKILLS AND TRAINING ON DATA ENGINEERING AND DATA SCIENCE


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Skills Training Courses

All

Filter by Role

Define the Problem




DEFINE THE PROBLEM

Open Education Analytics Overview

Learn more about how OEA can help you modernize your own data estate.

Project Managers + 4 more




DEFINE THE PROBLEM

OEA Responsible AI Overview

OEA shows how to ensure data and AI are used responsibly and ethica...

Project Managers + 4 more




DEFINE THE PROBLEM

Use Case Template

A use case template for education systems to use as they plan how t...

Project Managers + 1 more

Setup the Modern Data Estate




SETUP THE MODERN DATA ESTATE

OEA Architecture Setup

Using the OEA toolkit, education data teams and researchers can set...

Data Architects and Engineers + 2 more




SETUP THE MODERN DATA ESTATE

OEA Setup Documentation

Using the OEA Setup on GitHub, education data teams can setup the m...

Data Architects and Engineers + 2 more




SETUP THE MODERN DATA ESTATE

Receive data with Azure Data Share and transforming with Azure Data Factory

Learn how to ingest data from Azure Data Share into Azure Data Fact...

Data Architects and Engineers



SETUP THE MODERN DATA ESTATE

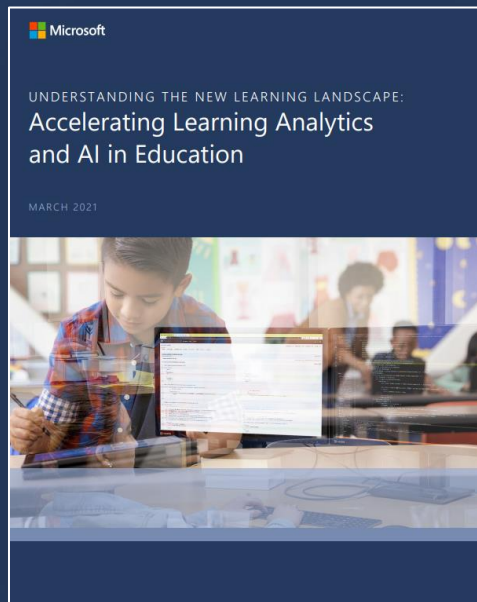
Azure Fundamentals Part 1 - Describe cloud concepts

Azure fundamentals is a six-part series that teaches you basic clou...

Data Architects and Engineers

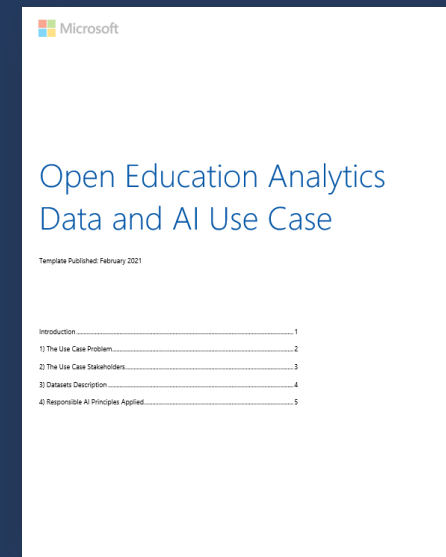
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Accelerating Learning Analytics and AI in Education: A report on operationalizing principles of responsible AI in Education



PRINCIPLES OF
**RESPONSIBLE
DATA AND AI**

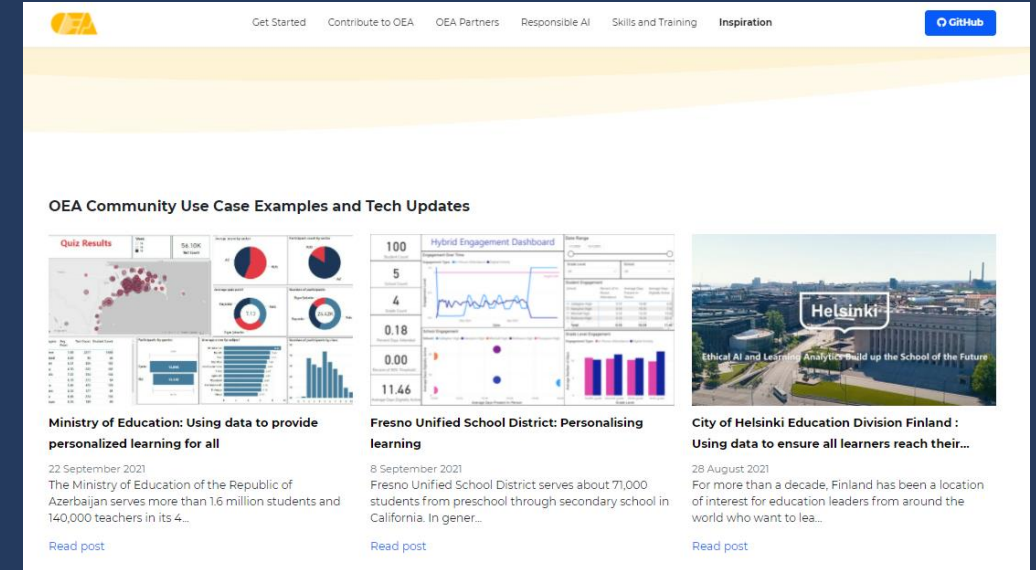
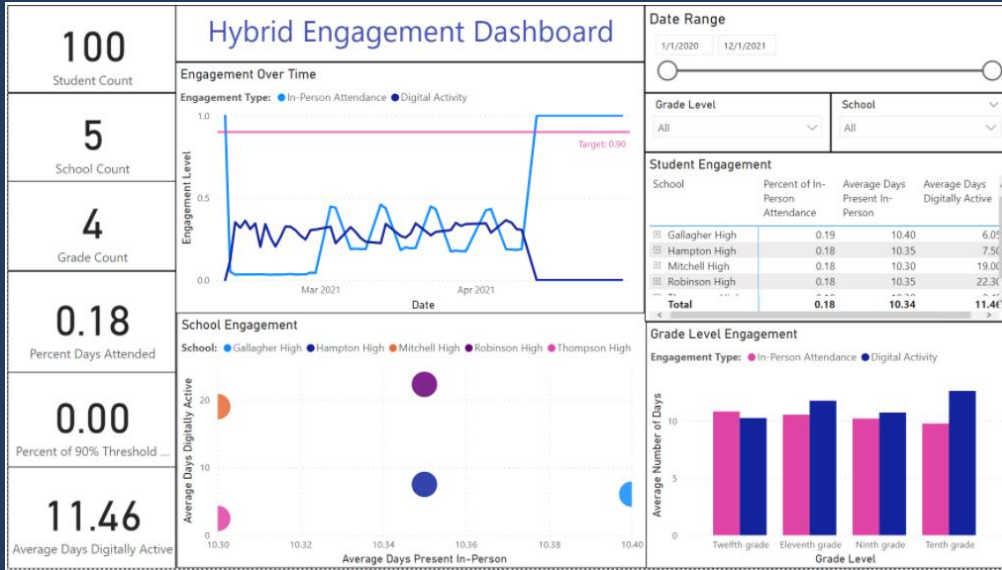
OEA Responsible AI Use Case Template



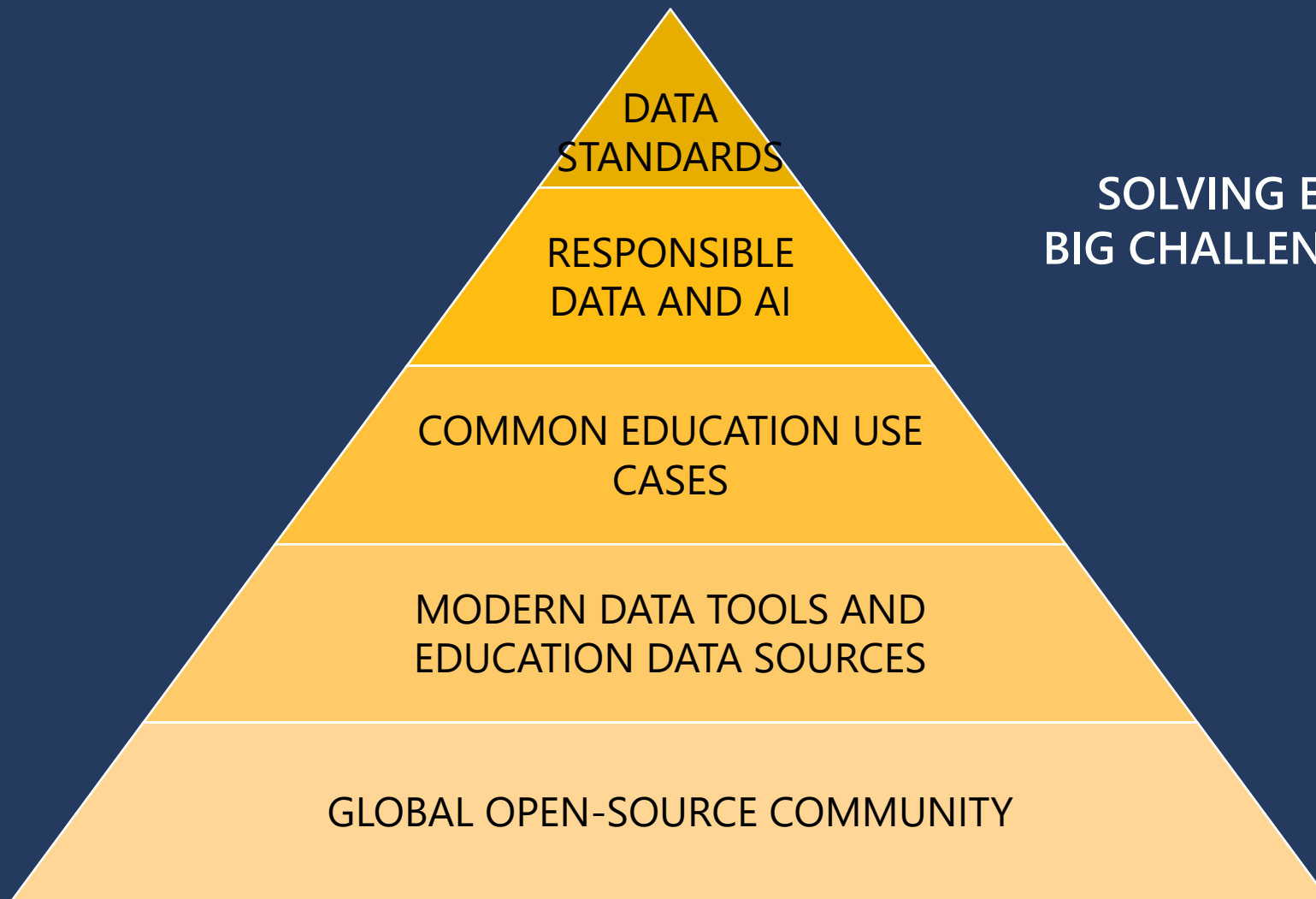


COMMUNITY OF
EDUCATION
SYSTEMS
DEVELOPING
SHARED USE CASES

Supported by Local OEA Technical Partners



COMMUNITY OF
EDUCATION
SYSTEMS
DEVELOPING
SHARED USE CASES



**SOLVING EDUCATION'S
BIG CHALLENGES TOGETHER**

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