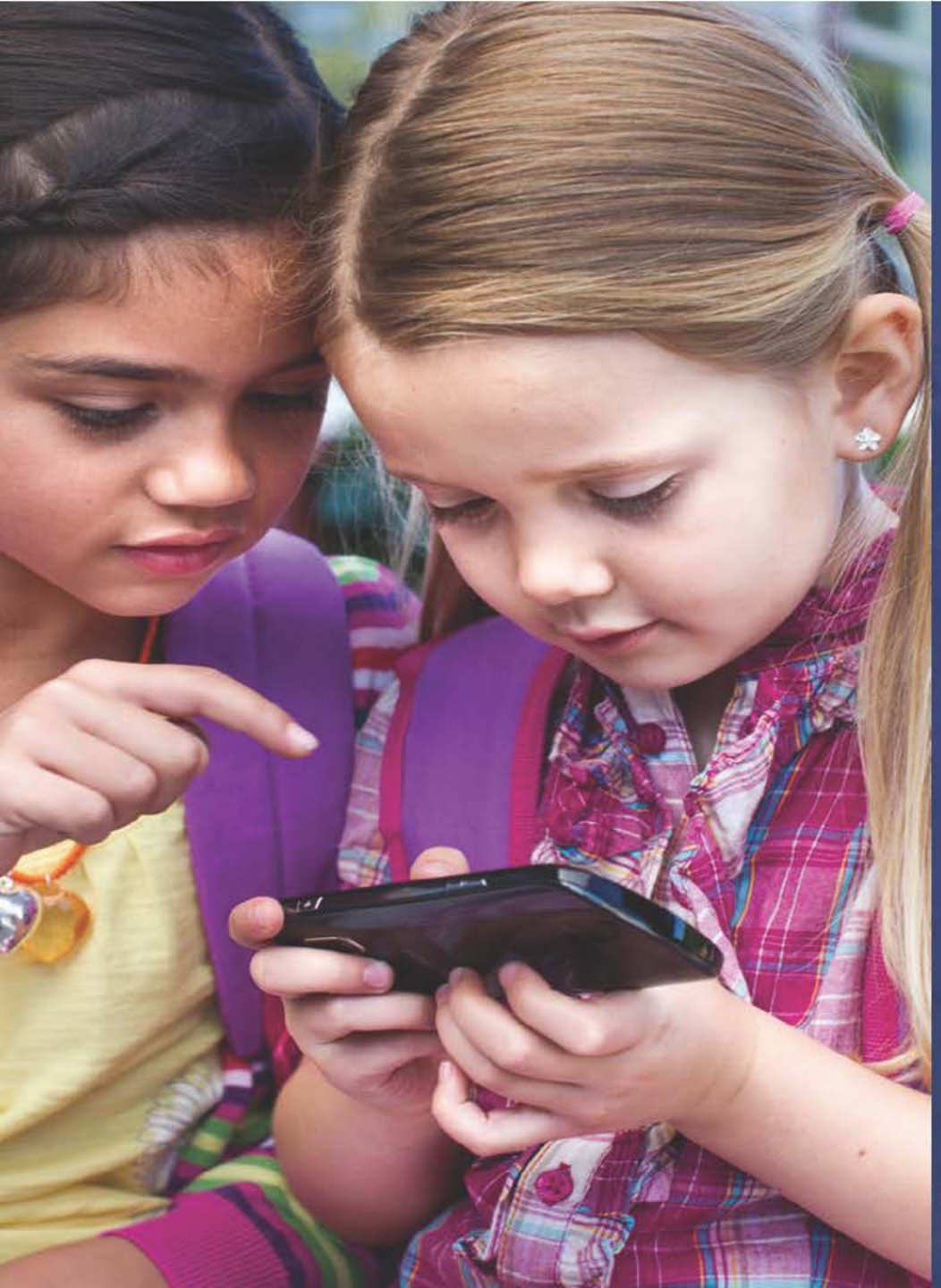
Microsoft

Education Digital **Transformation**

Keren Henríquez
Education Director
Microsoft Puerto Rico, Dominican Republic & USVI



TECHNOLOGY IS CHANGING

THE WAY WE THINK, LEARN AND COMMUNICATE


2005 – POPE BENEDIC

WHAT DID THEY DO NEXT?

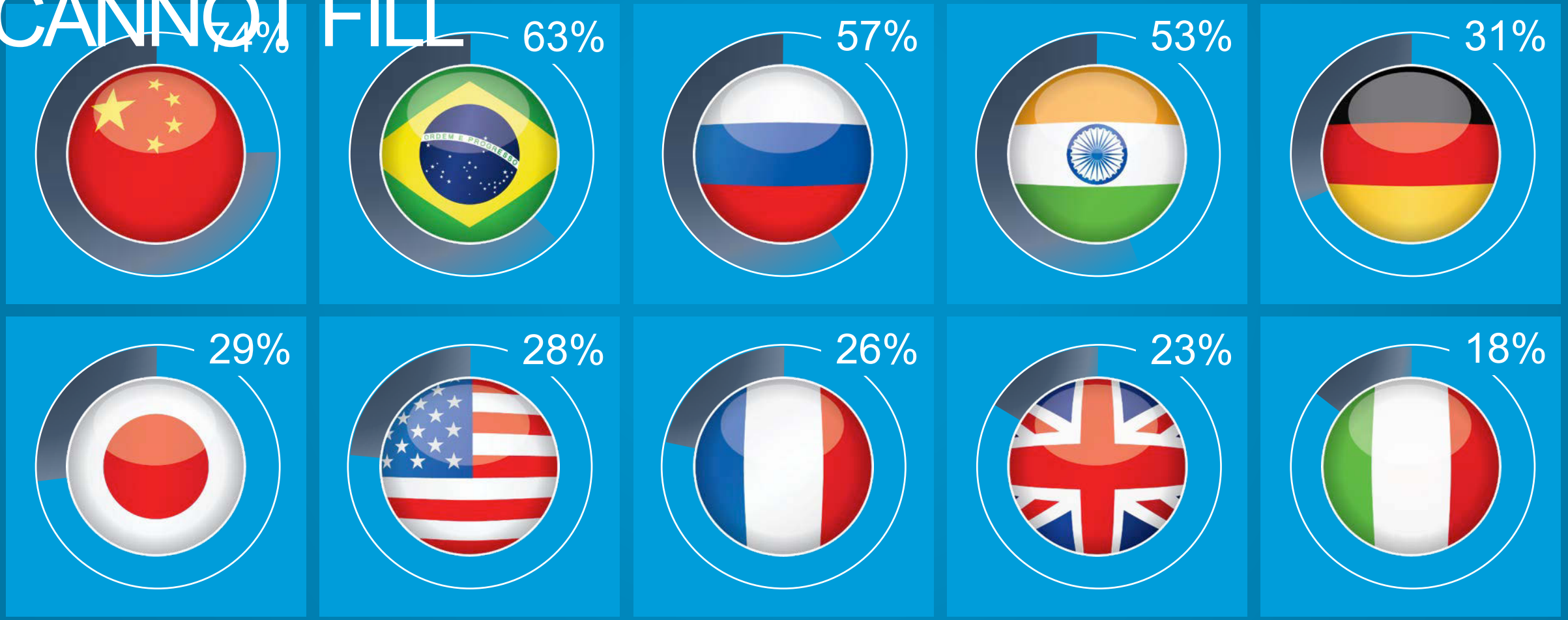
There are
1.4 billion
students in the
world
and 65.2 million
educators.

Yet, 72 million children remain unschooled.

The global youth unemployment rate is now 13%.

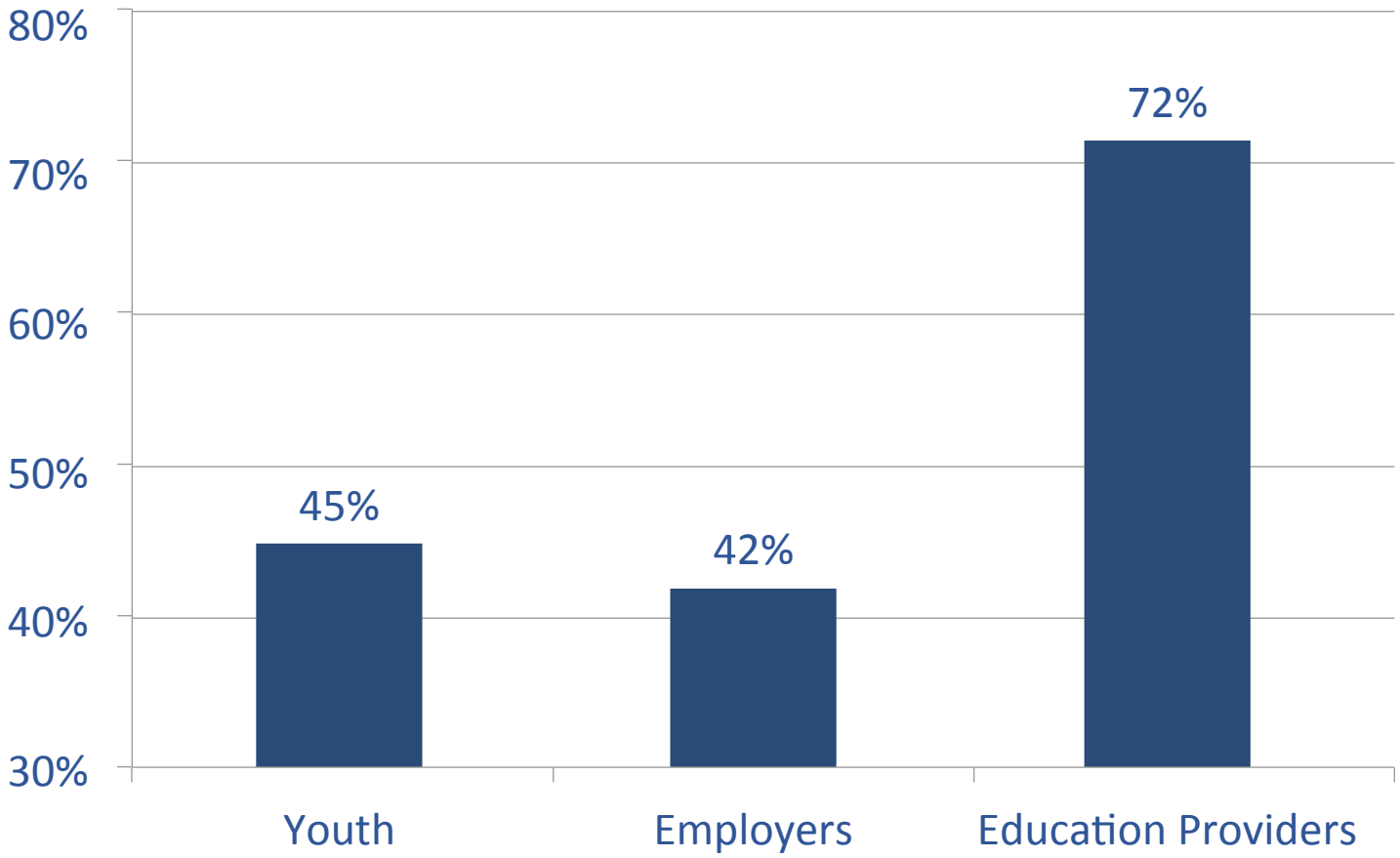
PROBLEM SOLVING SKILLS AND CREATIVITY IN DEMAND

EMPLOYERS WITH POSITIONS THEY CANNOT FILL



Source: www.careerbuilder.com

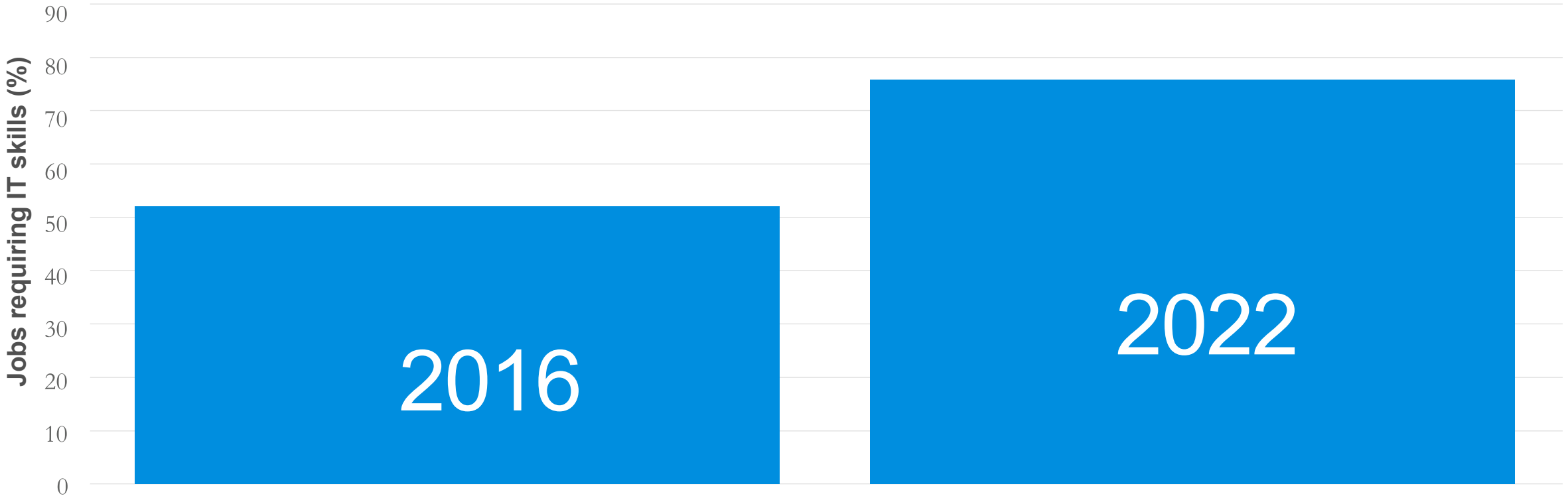
Disconnect between school and work



% who believe graduates are ready for entry level positions in the workplace

Source: McKinsey & Company “Education to Employment” surveys, Aug-Sept 2012. 5 countries data. Adapted.
http://mckinseyonsociety.com/education-to-employment/

Students need skills to compete



More than **50%** of today's jobs require some technology skills, and experts say that percentage will increase to **77%** in less than a decade.


WORK IS EVOLVING

Yet, classrooms remain mostly the **SAME**

Teacher to Classroom

Small groups

Alone


rPath
Building
Sane automatic defaults (arguments and environment) for consistent builds, for example:
r.Configure() includes consistent set of default command-line arguments
r.Make() sets environment variables like CFLAGS
r.MakeInstall() sets DESTDIR to the proxy root
Most common build and install commands encapsulated
Conary Packaging: Simply Powerful
FOSDEM • February 24, 2008
ULB
STAFF

Old model

TIME SPENT vs KNOWLEDGE GAIN

The Student of the Future TODAY!

Social Learners

Active Learners

Mobile Learners

Informal Learners

Creators and Contributors

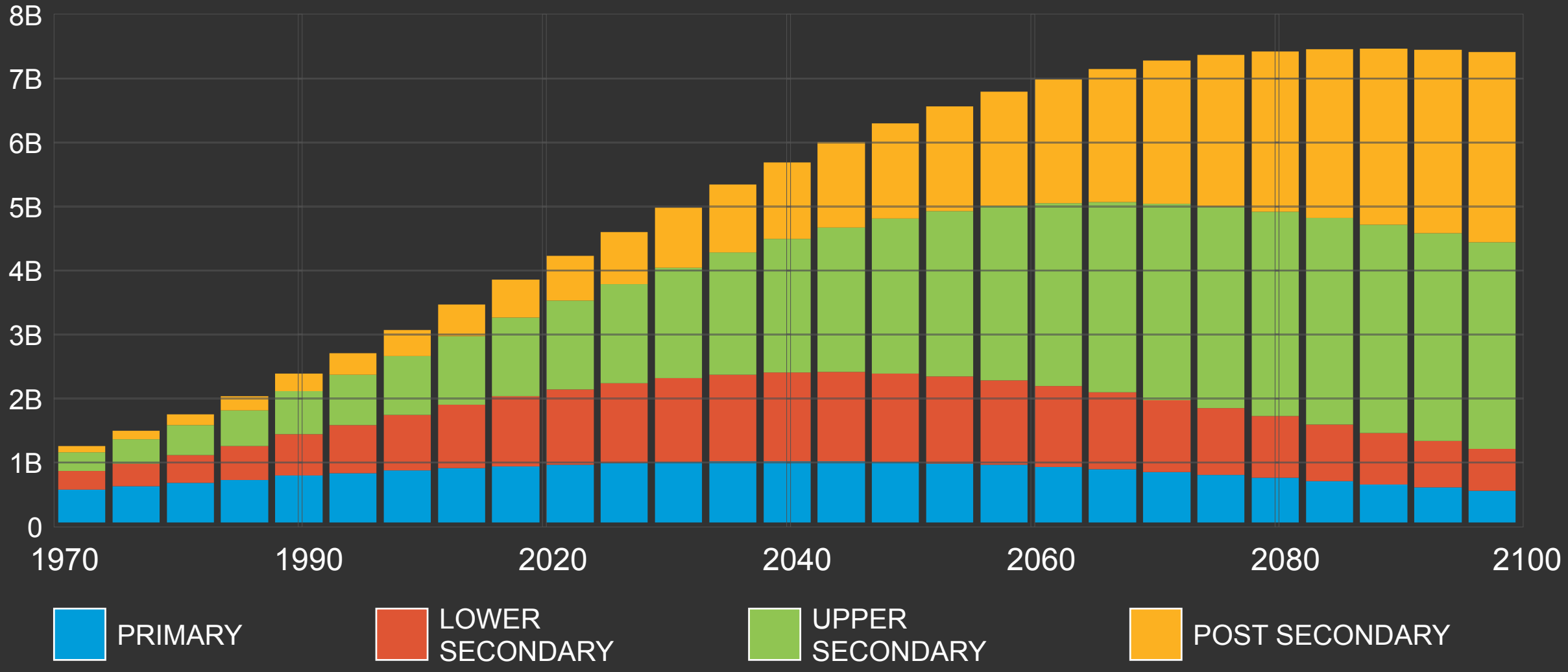
Always connected

Extreme Learner Degree vs Savy?

Virtually Assisted

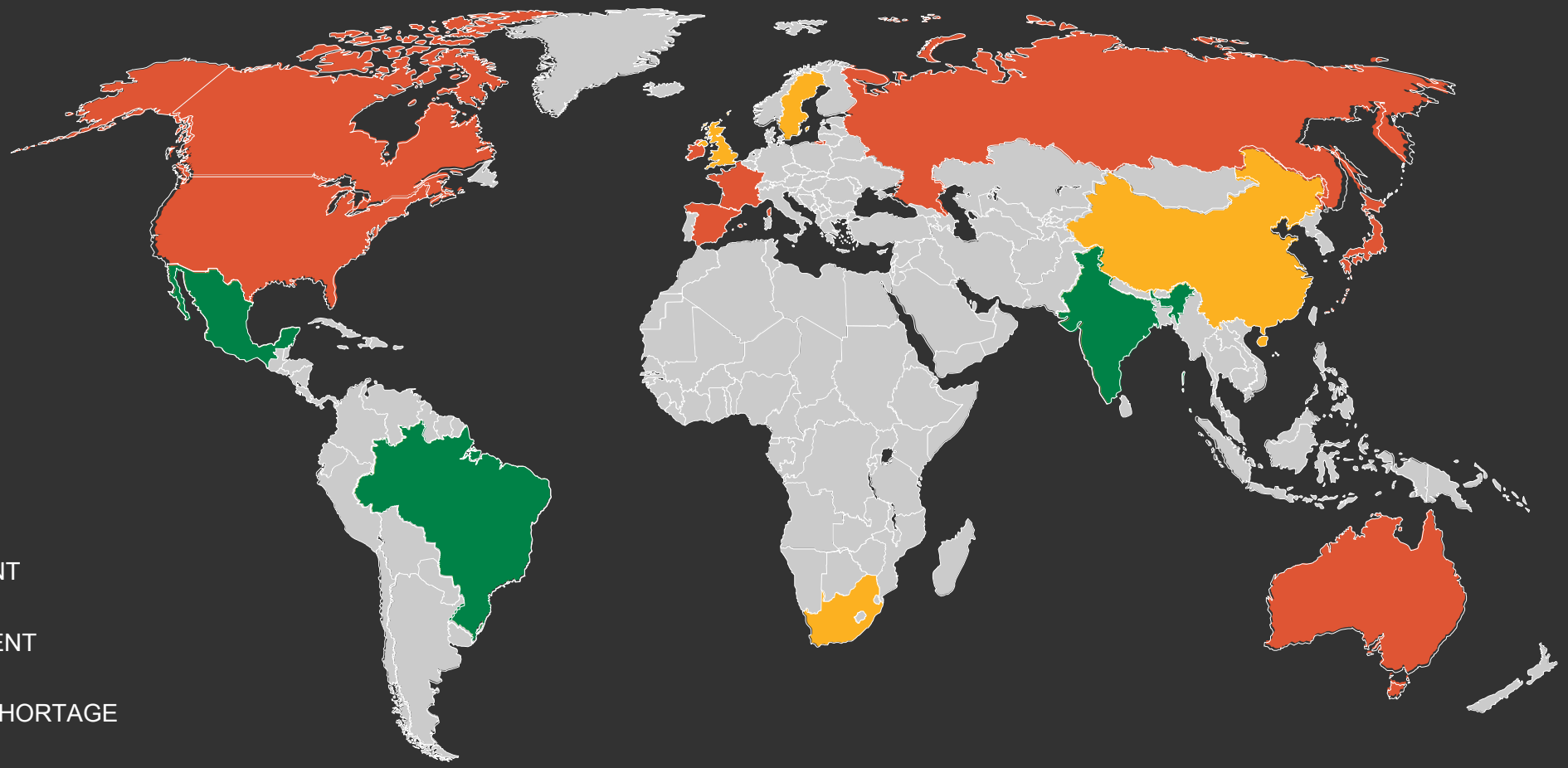

New model

PROJECTED WORLD POPULATION BY LEVEL OF EDUCATION 1970-2100



Source: OurWorldinData.org

SIGNIFICANT TALENT GAPS EXPECTED BY 2020 AND BEYOND



LARGE TALENT SHORTAGE

MEDIUM TALENT SHORTAGE

NO TALENT SHORTAGE

EMPLOYABILITY CHALLENGES

SOURCE: WORLD ECONOMIC FORUM

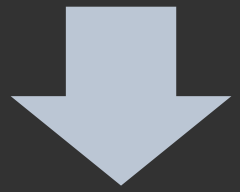
PEOPLE MOVE TO

FIND JOBS

JOBS MOVE TO

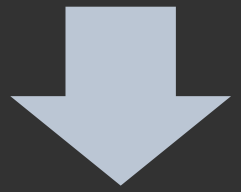
FIND PEOPLE

TOP DOWN
HIERARCHIES



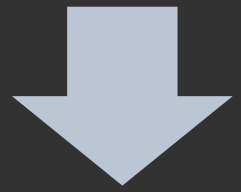
NETWORKS &
RELATIONSHIPS

COMPETING FOR
MARKET SHARE



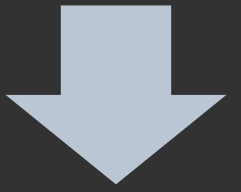
CREATING
NEW MARKETS

FUNCTION-BASED
WORK IN SILOS



PROJECT-BASED
TEAMWORK

30 YEARS IN
ONE CAREER



10+ CAREERS
BY AGE 40

EMPLOYERS HIRE FOR

SKILLS ABOVE

ACADEMIC SUCCESS

THE RISE OF THE ALTERNATIVES


THE WORLD'S LARGEST
HOTEL COMPANY OWNS
NO PROPERTY
airbnb
NUTES
R DAY
ELCO
CTURE
ARGEST
OWNER
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13
ook
ARGEST
R OWNS
MAS
LIX
LD'S LARGEST
MPANY OWNS
CARS
BER

THE DIGITAL TRANSFORMATION FOR HIGHER EDUCATION

ENAGAGE YOUR STUDENTS

EMPOWER YOUR EDUCATORS

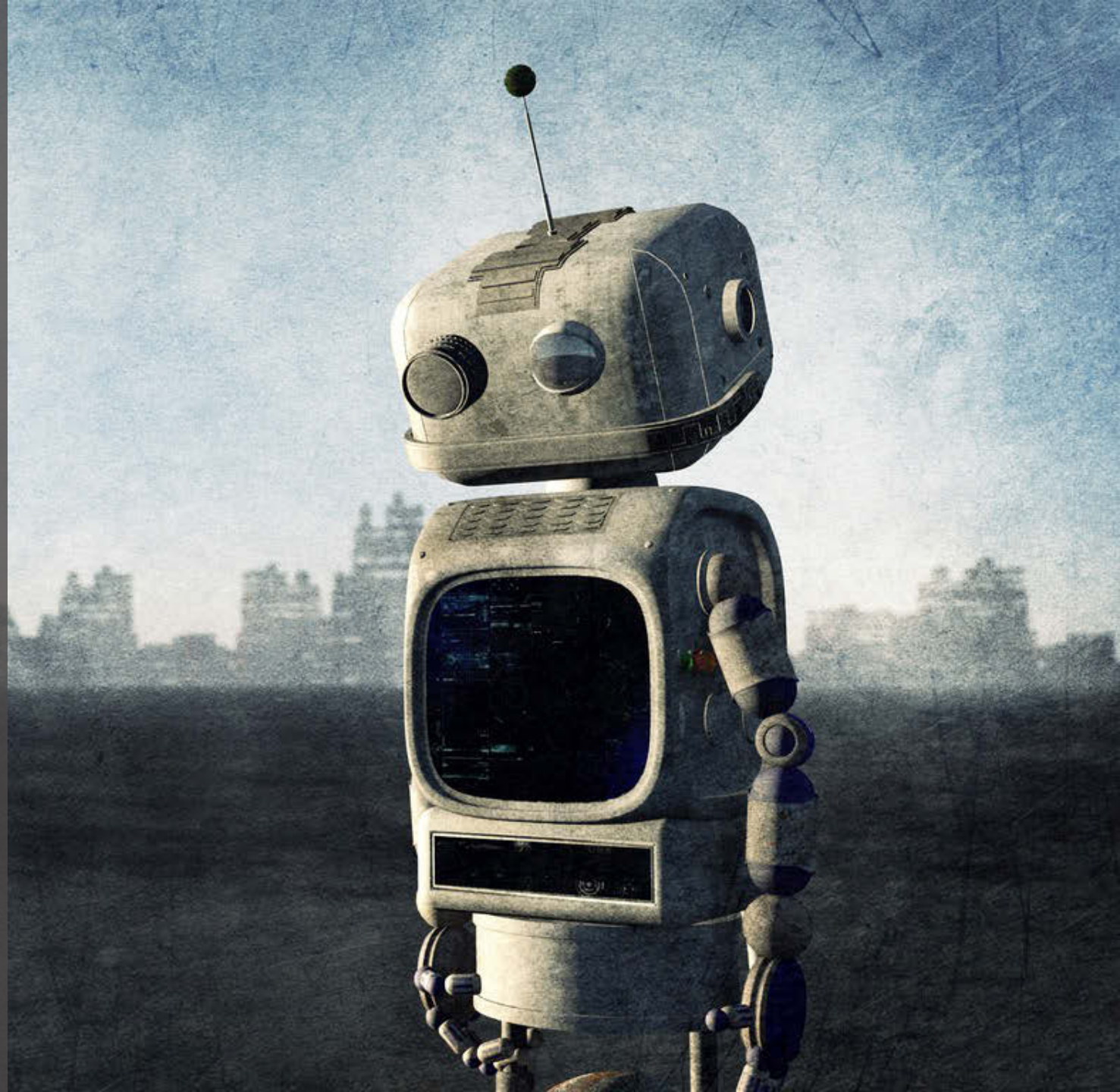
OPTIMIZE YOUR INSTITUTION

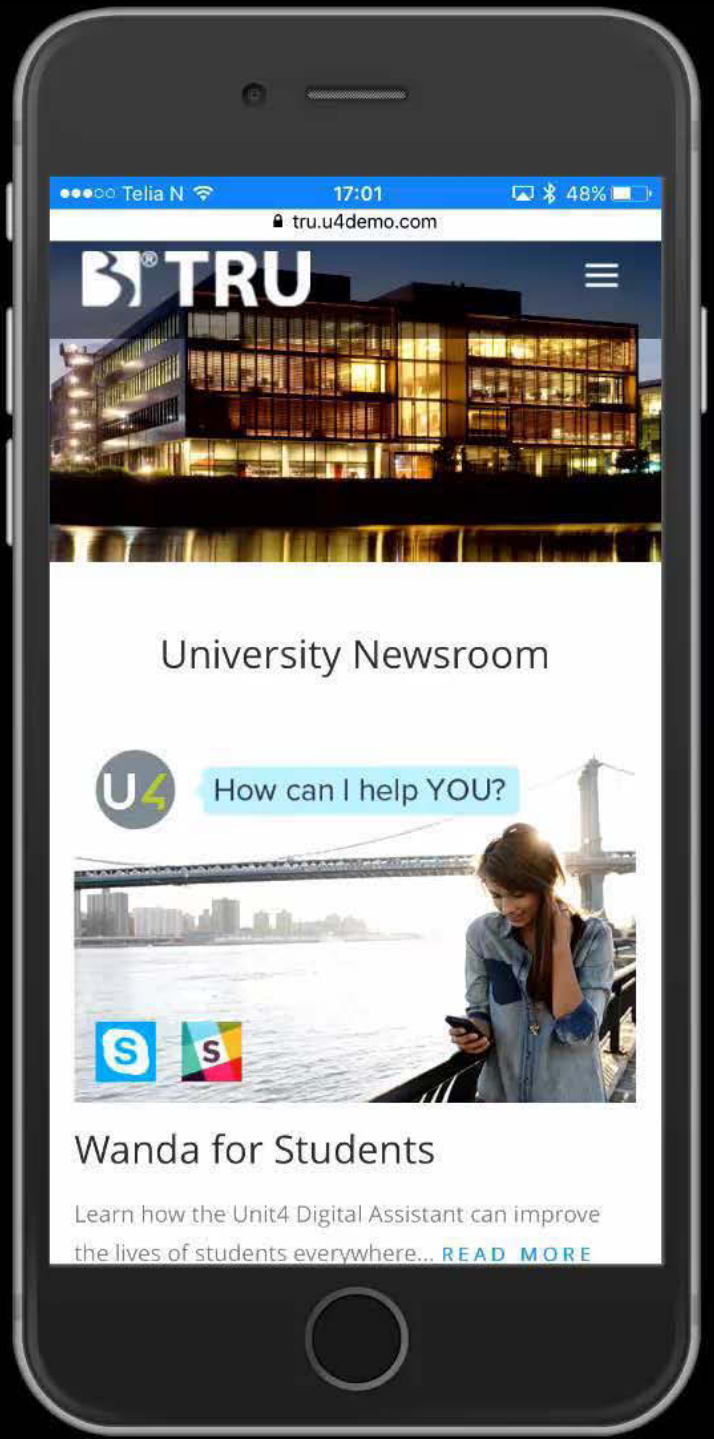
TRANSFORM LEARNING

THE ROLE OF TECHNOLOGY IN HIGHER EDUCATION


ROADMAP
FOX SCHOOL OF BUSINESS

THE RISE OF **MACHINES**

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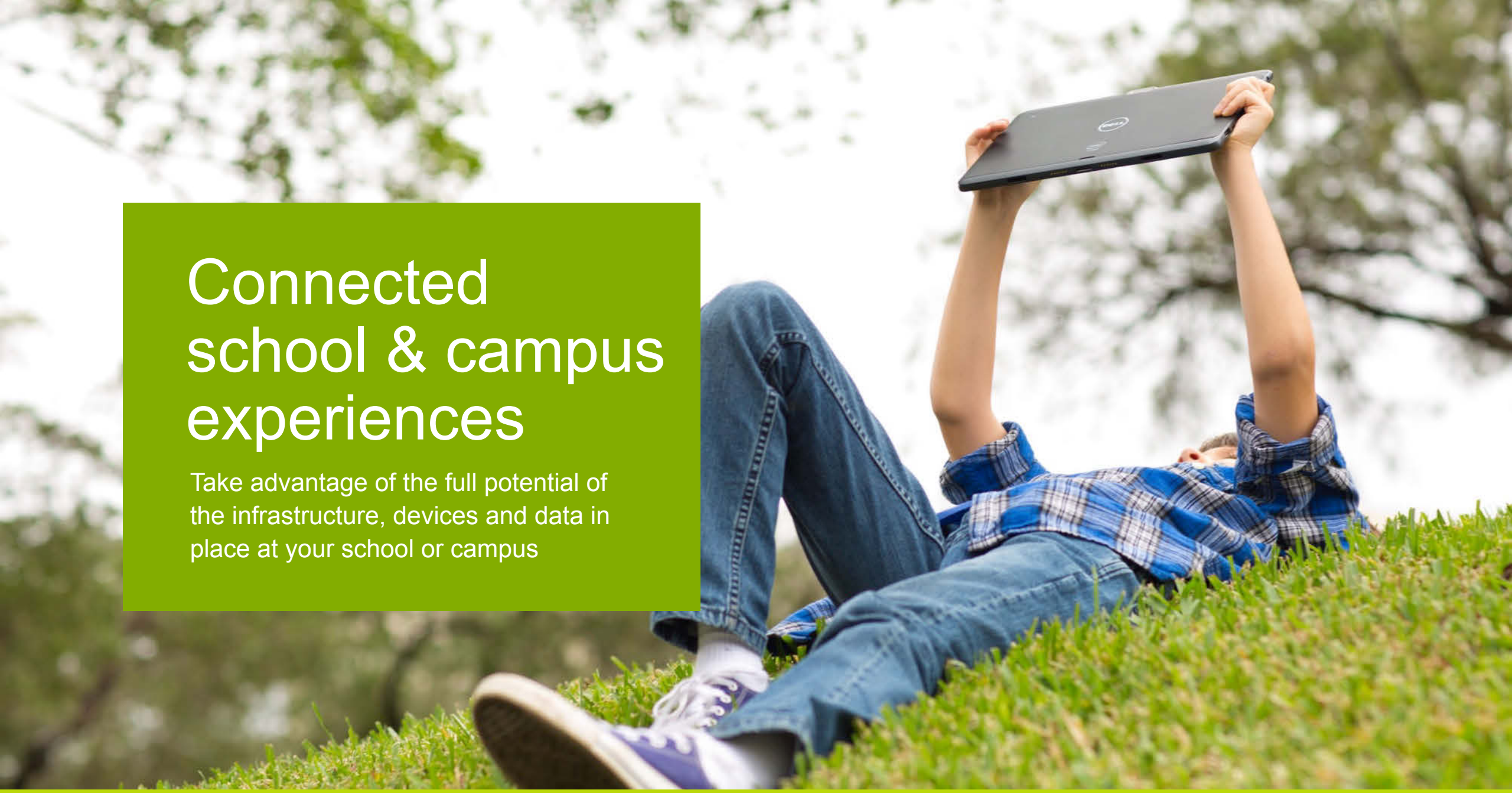
Wanda for Students
Learn how the Unit4 Digital Assistant can improve the lives of students everywhere... READ MORE

STUDENT SHIFTED

THE POTENTIAL OF LINKEDIN



Connected school & campus experiences

Take advantage of the full potential of the infrastructure, devices and data in place at your school or campus


Internet of **Things** brings intelligence to the edge

STUDENT SUCCESS

IS THE GOAL

Case study:

Increasing graduation rates with cloud analytics

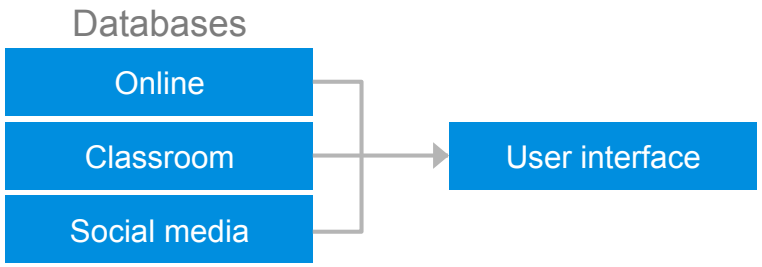
Is it possible to predict whether students are at risk of dropping out of school? The Tacoma Public School district used predictive analytics tools based on Microsoft cloud technologies to look for patterns.

Learn more

Identify at-risk students

Track current performance

Student	Hours in class	Comments online	Logons
Dylan	0	15	3
David	6		
Bill	10	70	5
Cindy	12	4	6
Zach	6	3	8

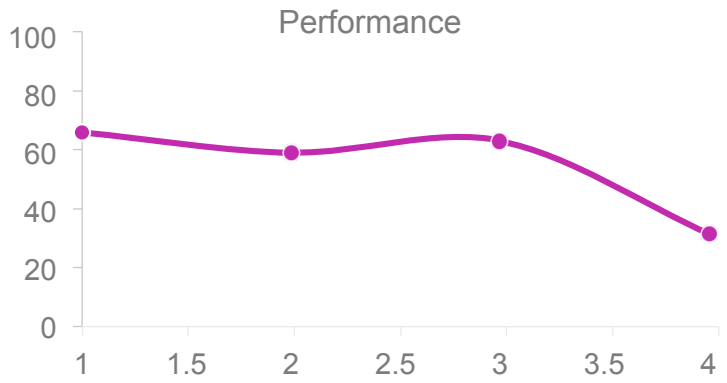


Classroom and Online Interaction Data for Individual Students

Collects and tracks how often each student attends class in person, how each performs based on grades, and how much each participates in the class' online discussions. Any student can be individually selected for further details.

Predict dropout probability

Student "Dylan" Summary

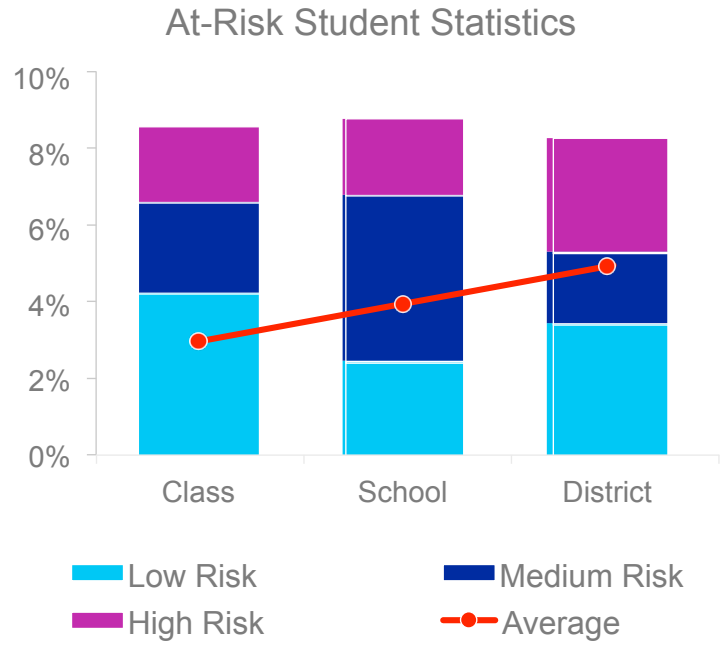


At-Risk Score (5)	Risk Level	Intervention Recommended
4.2	High Risk	Yes

Dropout Threat Predictor

Predicts which students are at high risk of dropping out of school based on either sudden changes in performance or consistent signs of struggle. A machine learning algorithm is used to classify students by risk level: Low, Medium, and High.

Aggregate and act

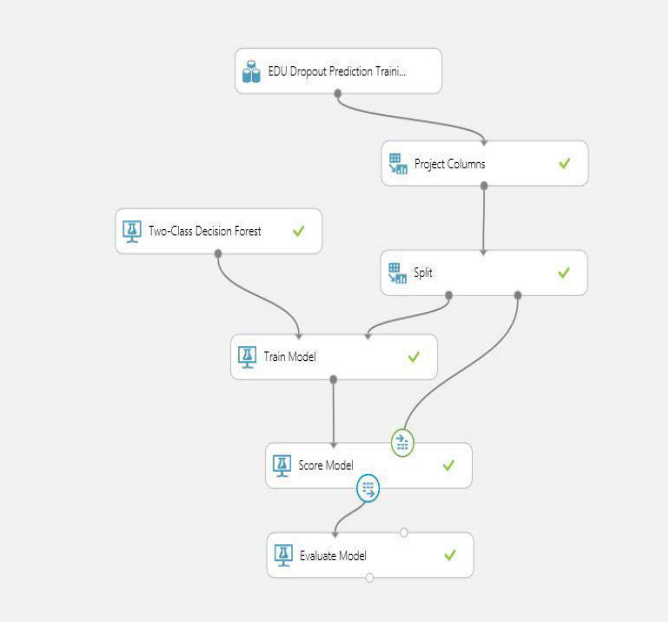


Aggregation of Risk Throughout Education System

Sums up and generalizes the number of at-risk students at the classroom, school, and district level. System enables administrators to measure effectiveness of policy changes in school system.

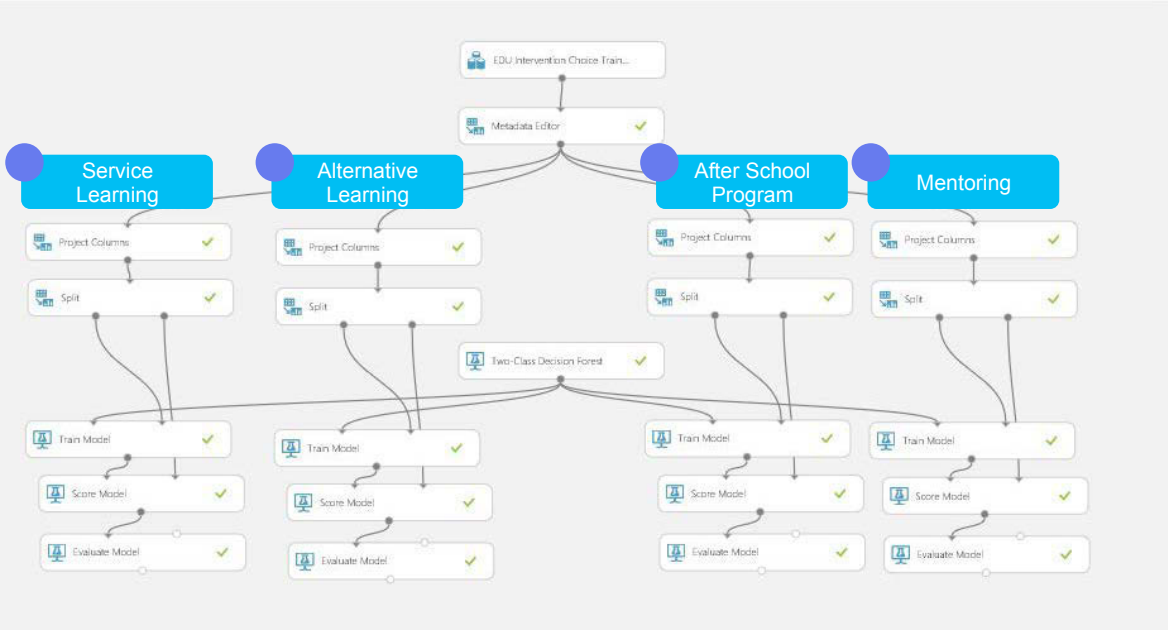
Predictive Models Overview

Drop Out Prediction Model



- Single model that predicts drop out on individual student basis
- Outputs of prediction include binary 1/0 prediction whether student will drop out and relative certainty of prediction
- Model is web-service ready. – Indicated by green and blue circles

Intervention Effectiveness Model



- Model composed of four prediction sub-models. Each sub-model creates a prediction for an intervention method
- Output of model includes binary 1/0 prediction of success and relative certainty 0-1.0 rating for each intervention
- Intervention methods covered:
  - Service Learning
  - Alternative Learning
  - After School Programs
  - Mentoring

NEAL ANALYTICS

Transform learning

with innovative teaching practices