



WOODSTOCK  
MUSIC & ART FAIR  
presents  
**AN  
AQUARIAN  
EXPOSITION**  
in  
**WHITE LAKE, N.Y.**

WITH

**FRI, AUG. 15**  
Joan Raye  
Arla Gathin  
Tim Hardin  
Rickie Evans  
Incredible String Band  
Egon Isenhardt  
By And The Family Stone

## SAT, AUG 16

Canned Heat  
Crescent Chamberlain  
Gustaf Band  
Karl Martell  
Jazz Jaglin  
Jefferson Airplane  
Mountain  
Quill  
Santana

SUN. AUG. 1

**SUN., AUG. 17**  
The Band  
Jeff Beck Group  
Blood, Sweat and Tears  
Jon Cyborn  
Grease, Sills and Muth  
Rui Haddad  
Ivan Butterfly  
Ten Years After  
Johnny Winter

487 500W

HUNDREDS OF ACRES  
TO SOAK ON

MUSIC STARTS AT 4:00 P.M. ON  
TUESDAY, AND AT 1:00 P.M. ON  
SATURDAY AND SUNDAY.

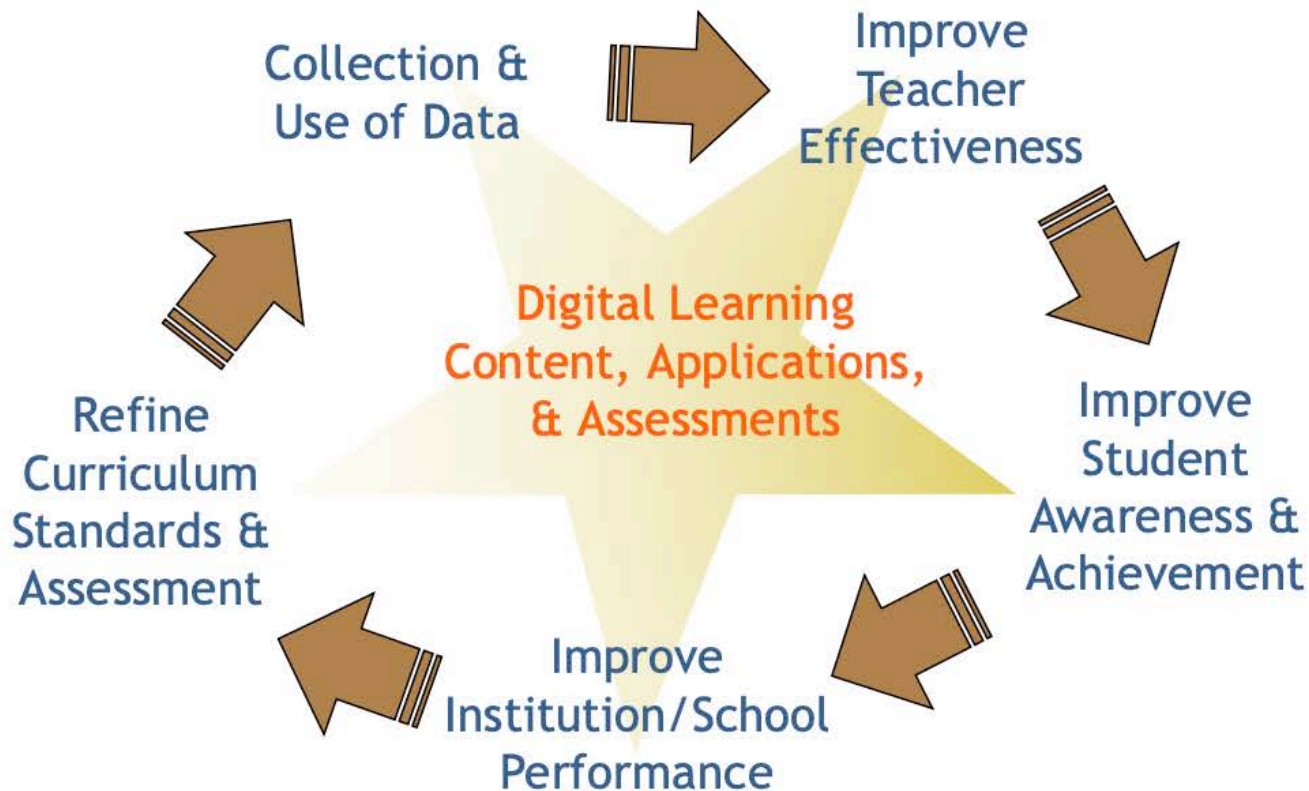
**AUGUST**  
**15, 16, 17**



# Thank You for an Amazing 2019!



# Continuous Improvement - Supported Digitally

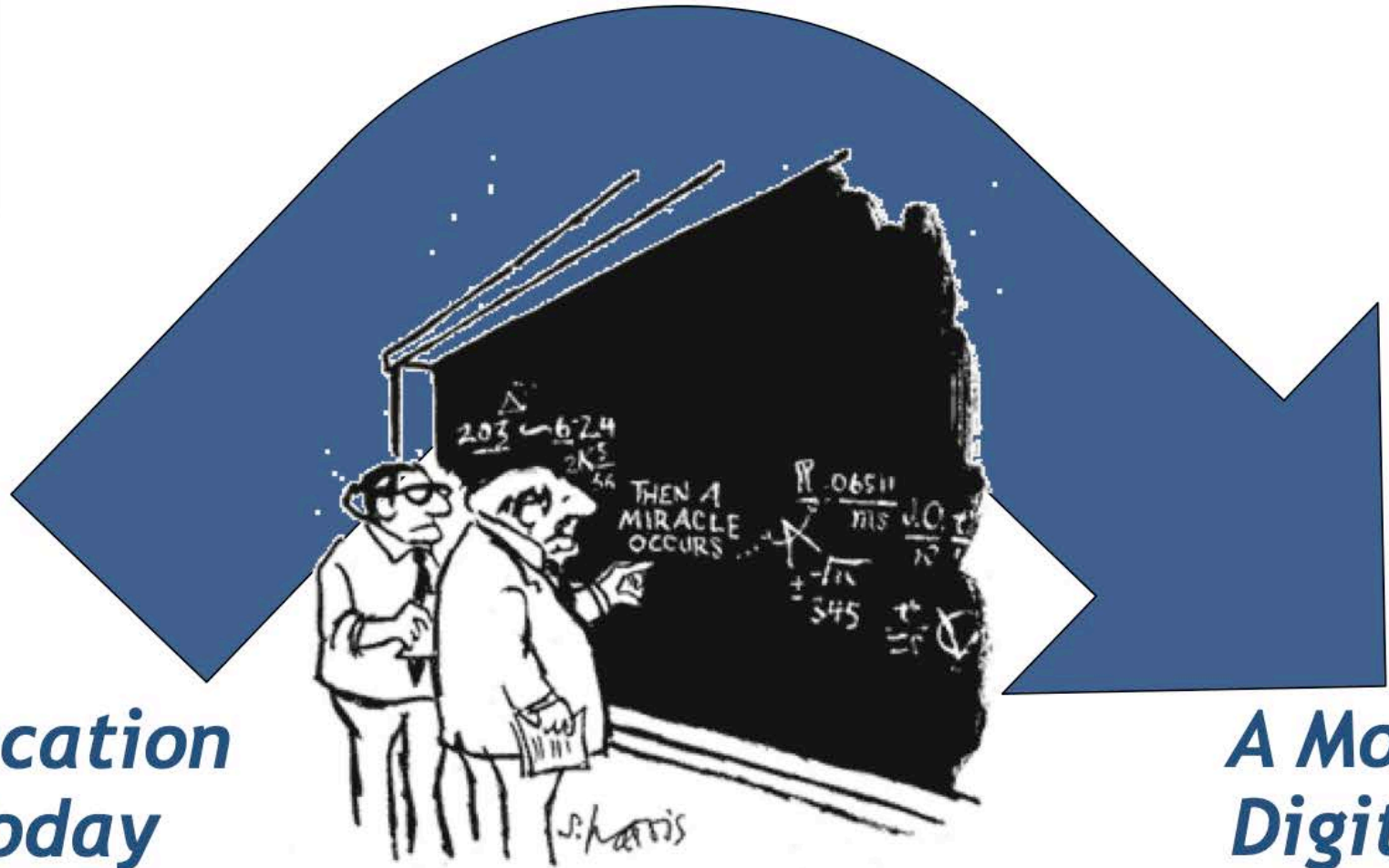




*“It is difficult to determine the return on investment in learning technology - not because of the usefulness of the technology but rather because of our lack of understanding of what it means to improve learning.”*



John V. Lombardi  
President, Louisiana State  
University System  
from IMS Learning Impact '08



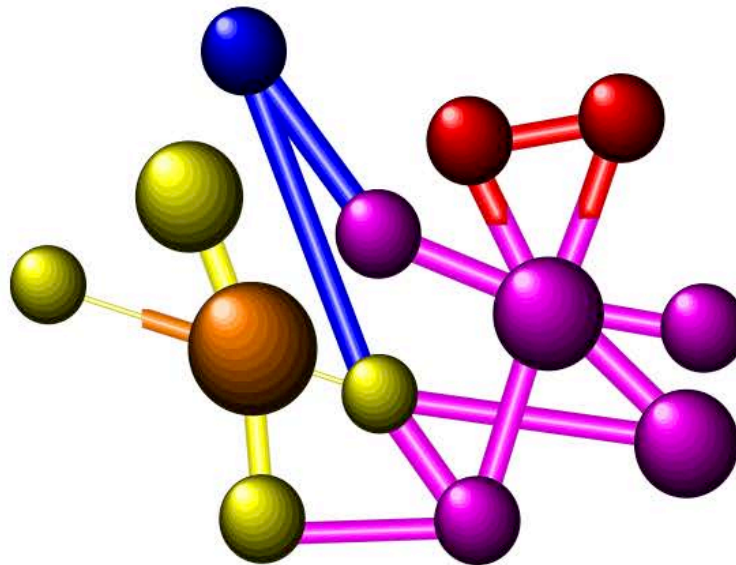
**Education  
Today**

**A More  
Digital  
Education**

"I THINK YOU SHOULD BE MORE  
EXPLICIT HERE IN STEP TWO."

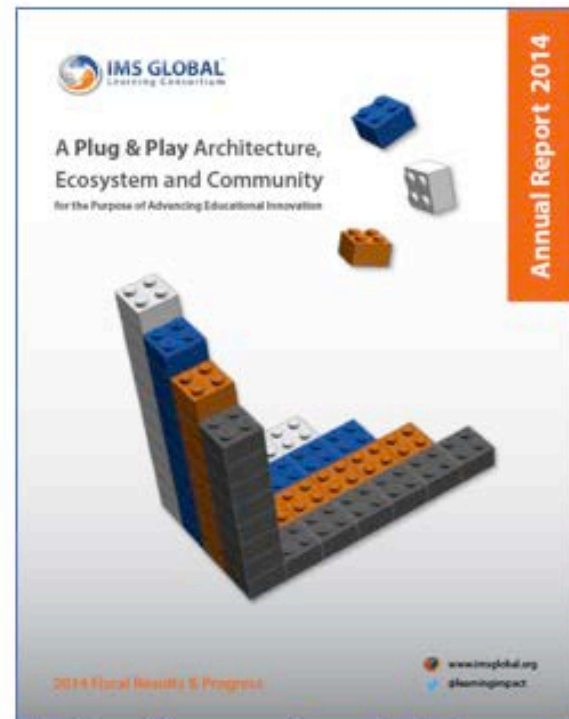
# The Role of Interoperability Standards

- Enabling flexible construction and evolution of federations of complementary learning tools



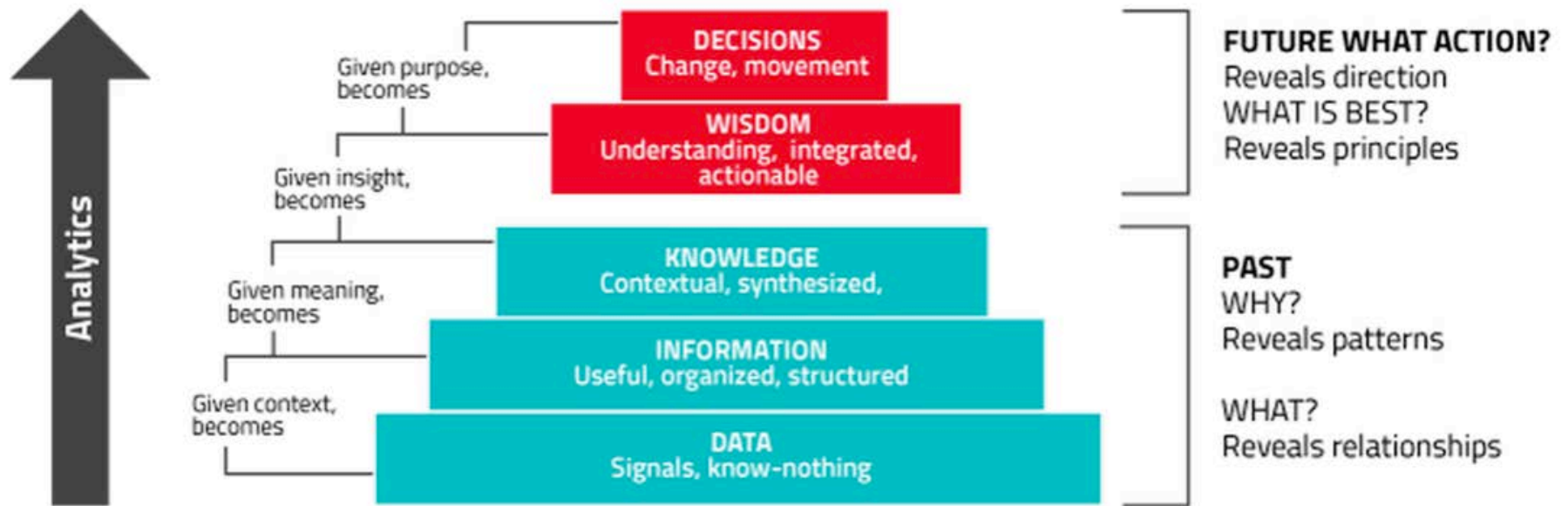
# Caliper Learning Analytics: No Hype – Just Data

Rob Abel  
Chief Executive  
IMS Global Learning Consortium  
[rabel@imglobal.org](mailto:rabel@imglobal.org)  
[@LearningImpact](https://www.learningimpact.org/)



<http://www.imglobal.org/>

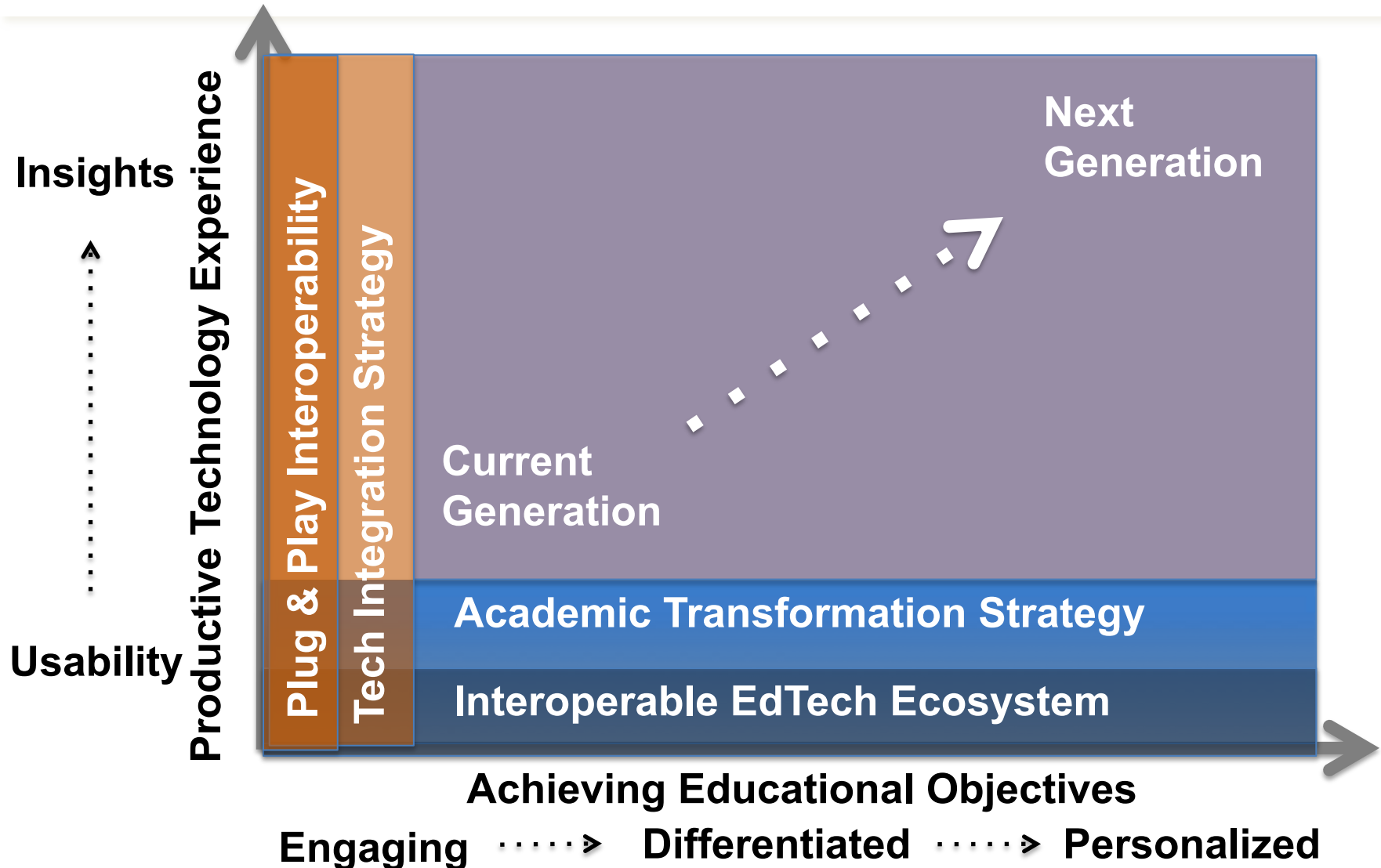




With insufficient data it is easy to go wrong.  
(Carl Sagan)



# Transformation Strategy (IT and Academic)



# Milestones in Medical Technology

From eyeglasses to the stethoscope to imaging the brain at work, a long list of inventions and innovations have changed medicine.

[< Previous](#) [Next >](#)



## Stethoscope

René Laënnec, a French physician, invented the stethoscope, a trumpet-shaped wooden tube, to examine a very fat woman whose heart he could not hear by pressing his ear to her chest.



Getty Images

## Anesthesia

Dr. Crawford W. Long performed the first operation using diethyl ether as an anesthetic. He pressed an ether-soaked towel against the patient's face to put him to sleep, then removed one of two tumors from his neck. He billed the patient \$2, itemizing the cost of the ether as well as the operation.



NYPL/Science Source

## Electrocardiogram

Dr. Willem Einthoven of the Netherlands invented the first practical electrocardiogram. The original weighed 600 pounds, had a water cooling system for its gigantic electromagnets and needed five operators. In 1924 he received the Nobel Prize in Physiology or Medicine for his invention.



Getty Images

## Pacemaker

Dr. Seymour Furman, a cardiologist at Montefiore Hospital in the Bronx, succeeded in extending a patient's life by more than two months using a cardiac pacemaker, a large machine to which the patient was attached by a 50-foot extension cord. By the next year, portable versions of the machine were in use.

## Fetal Ultrasound

Dr. Edward Hon of Yale reported using a Doppler monitor on a woman's abdomen to detect fetal heartbeat. Ultrasound's principles had been known for more than a century (a Swedish physicist, Christian Andreas Doppler, gave his name to the phenomenon in 1842), but this was its first use in prenatal care.



Todd Heisler/The New York Times



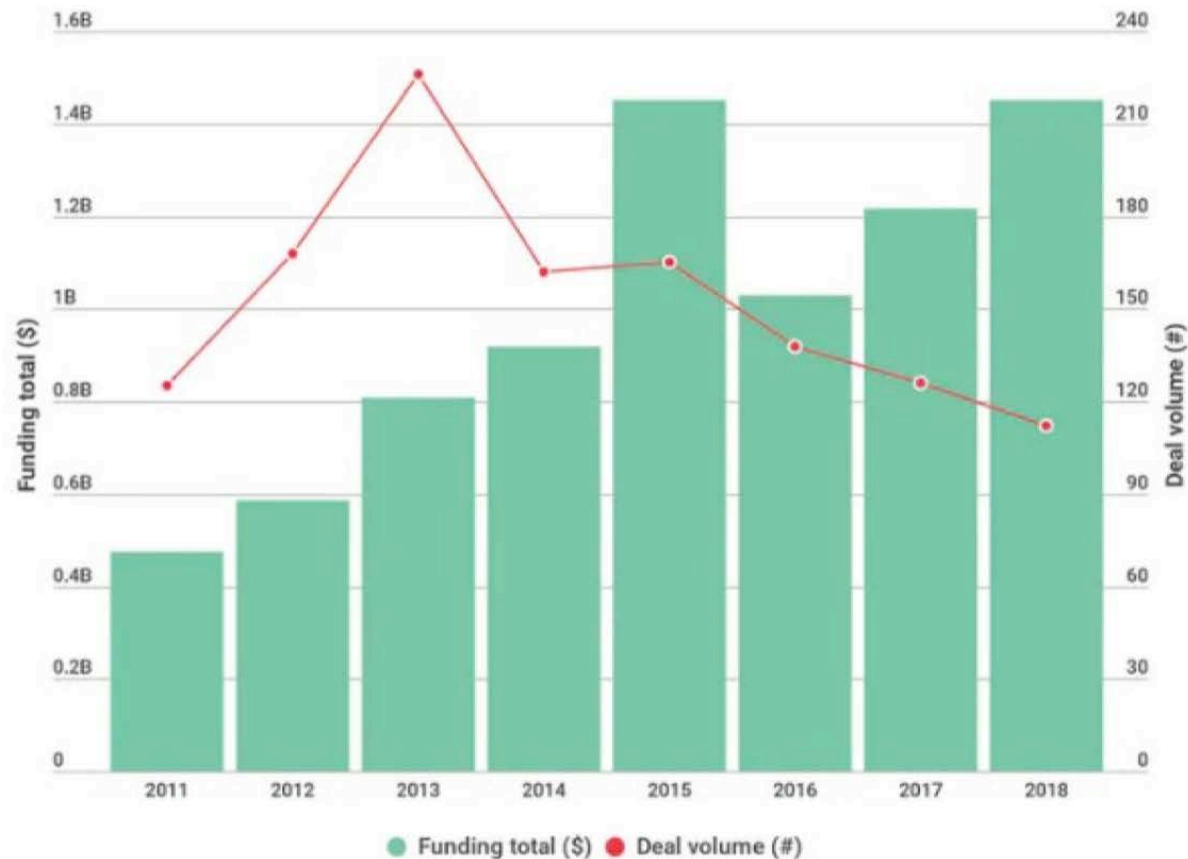
US Edtech Investments Peak Again With \$1.45 Billion Raised in 2018

**US Edtech  
Investments Peak  
Again With \$1.45  
Billion Raised in  
2018 (Jan 2019)**


**US Edtech Funding  
Already Nears \$1  
Billion in First Half  
of 2019 (Aug 2019)**

Source: [EdSurge](#)

Deal volume (#) and funding total (\$) for U.S. edtech companies, 2011-2018







# Is My Ed Tech Tool Making a Difference?

**An Entrepreneur's Guide to Using Research to Improve Products and Measure Impact.**

*By Tonika Cheek Clayton and Cameron White*



Every ed tech entrepreneur wants to develop an amazing tool that may one day become a household name. At NewSchools, we invest in ventures that also care deeply about impact. Through our ed tech accelerator [NewSchools Ignite](#), we help entrepreneurs use research to generate data that can inform their product and business strategies.

<https://www.newschools.org/edtechresearch/>

# Research Continuum

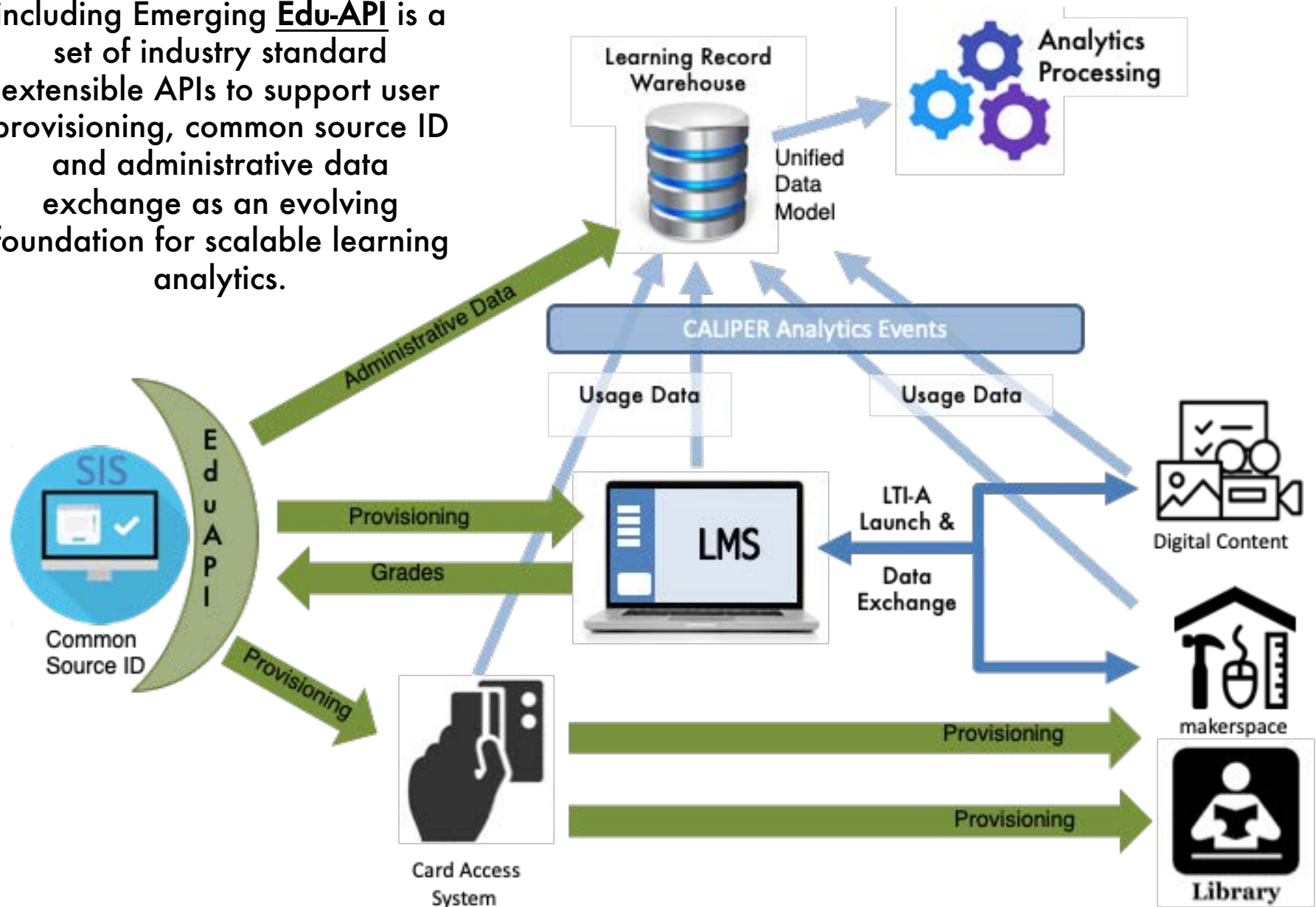


As rigor increases, so generally does the cost of research. While investment in ed tech continues to grow, there will likely be additional resources available for research, but entrepreneurs need to be able to make the case that research is aligned with product and business goals.

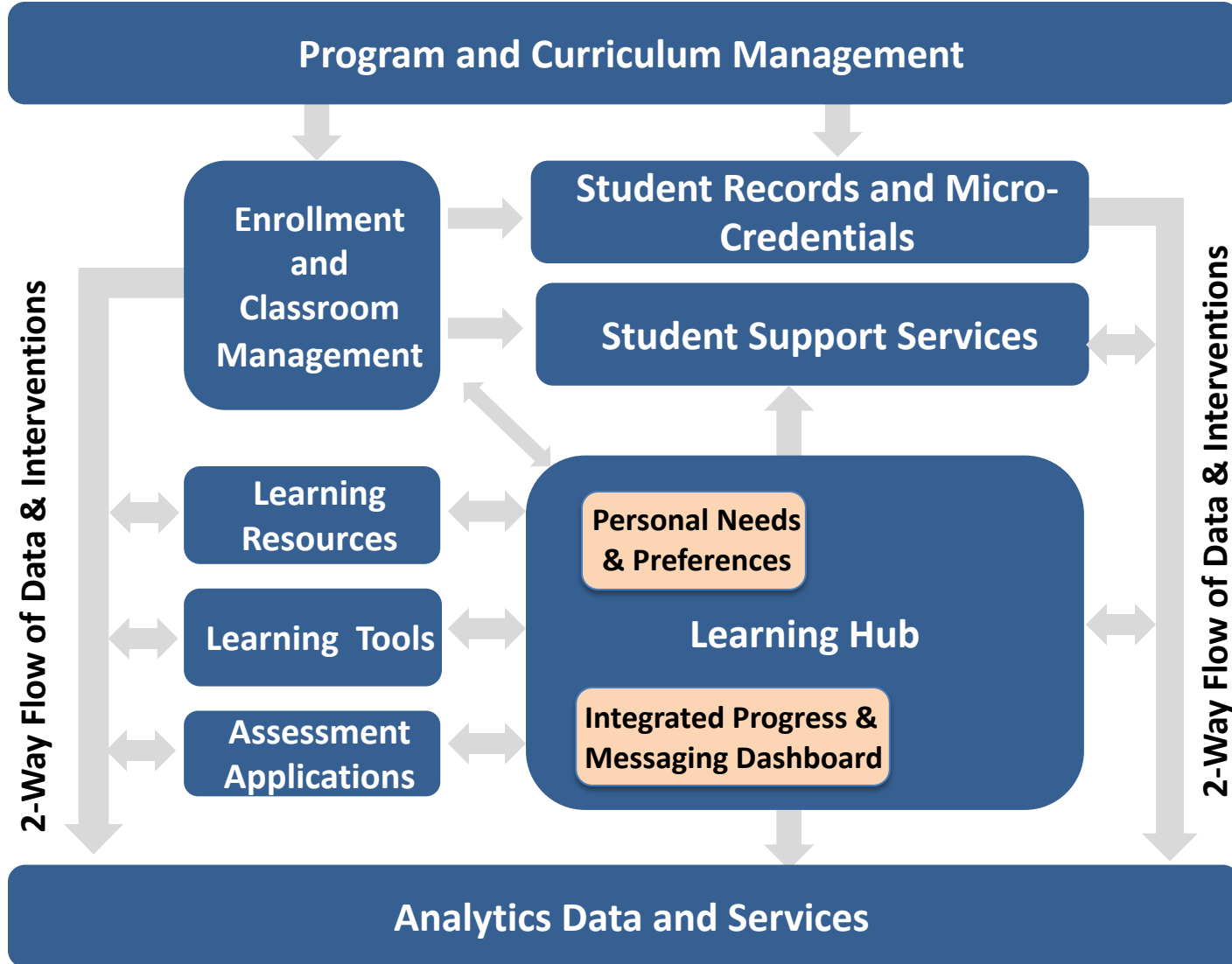
## Summary of research studies focused on measuring student outcomes

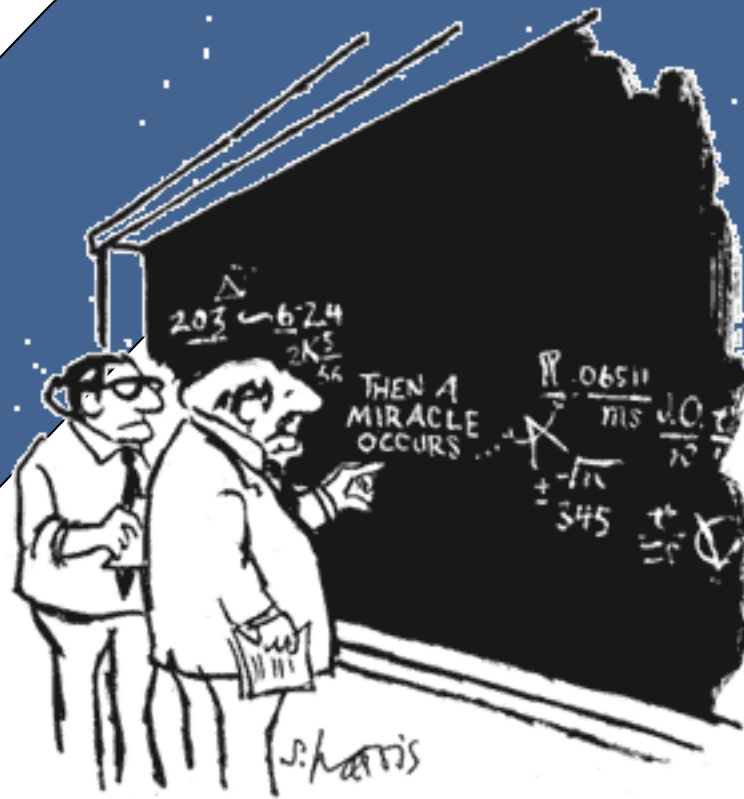
Study Type & Cost Range*	Prerequisites	Potential returns on investment	Potential funding sources

**Integrated Analytics Architecture**  
including Emerging **Edu-API** is a  
set of industry standard  
extensible APIs to support user  
provisioning, common source ID  
and administrative data  
exchange as an evolving  
foundation for scalable learning  
analytics.





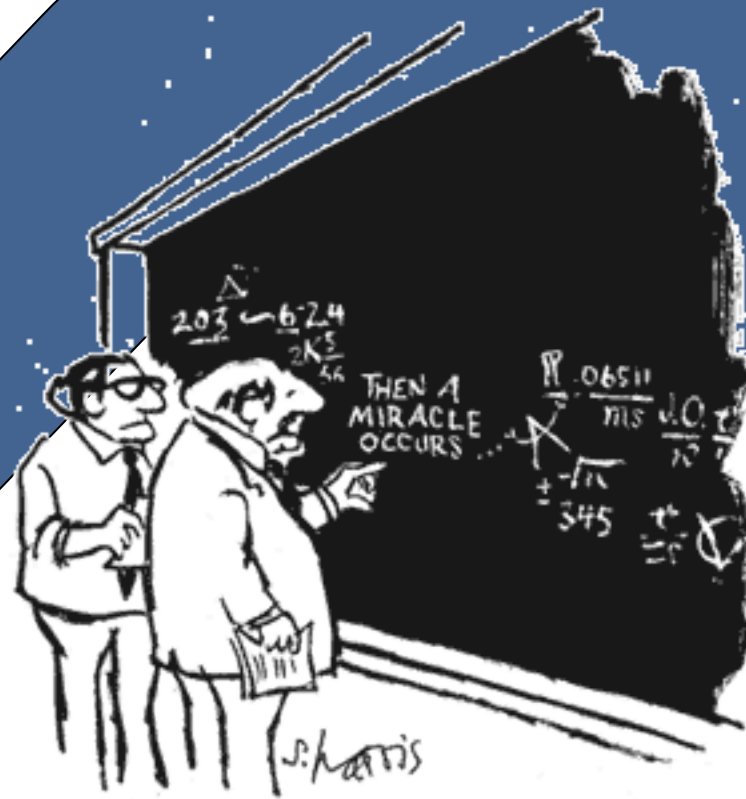




"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO."

***Education  
Data***

***Education  
Insights &  
Transformation***



"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO."

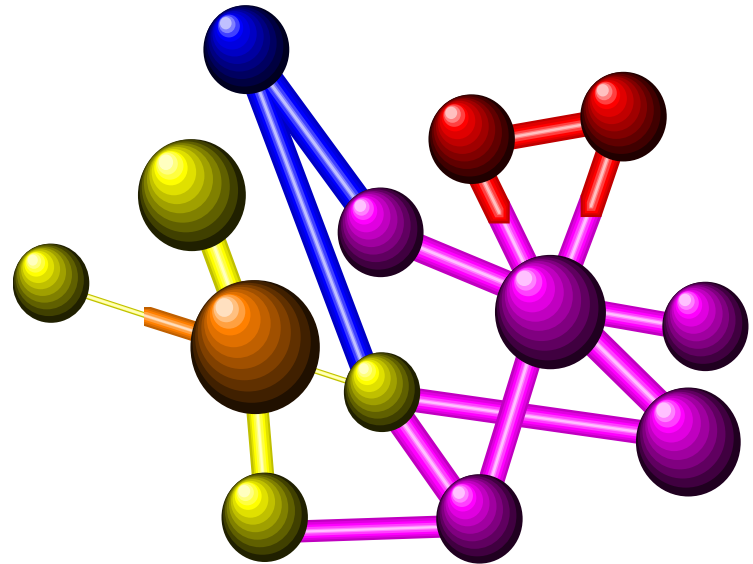
***Education  
Data***

***Effective Use  
of Education  
Data***



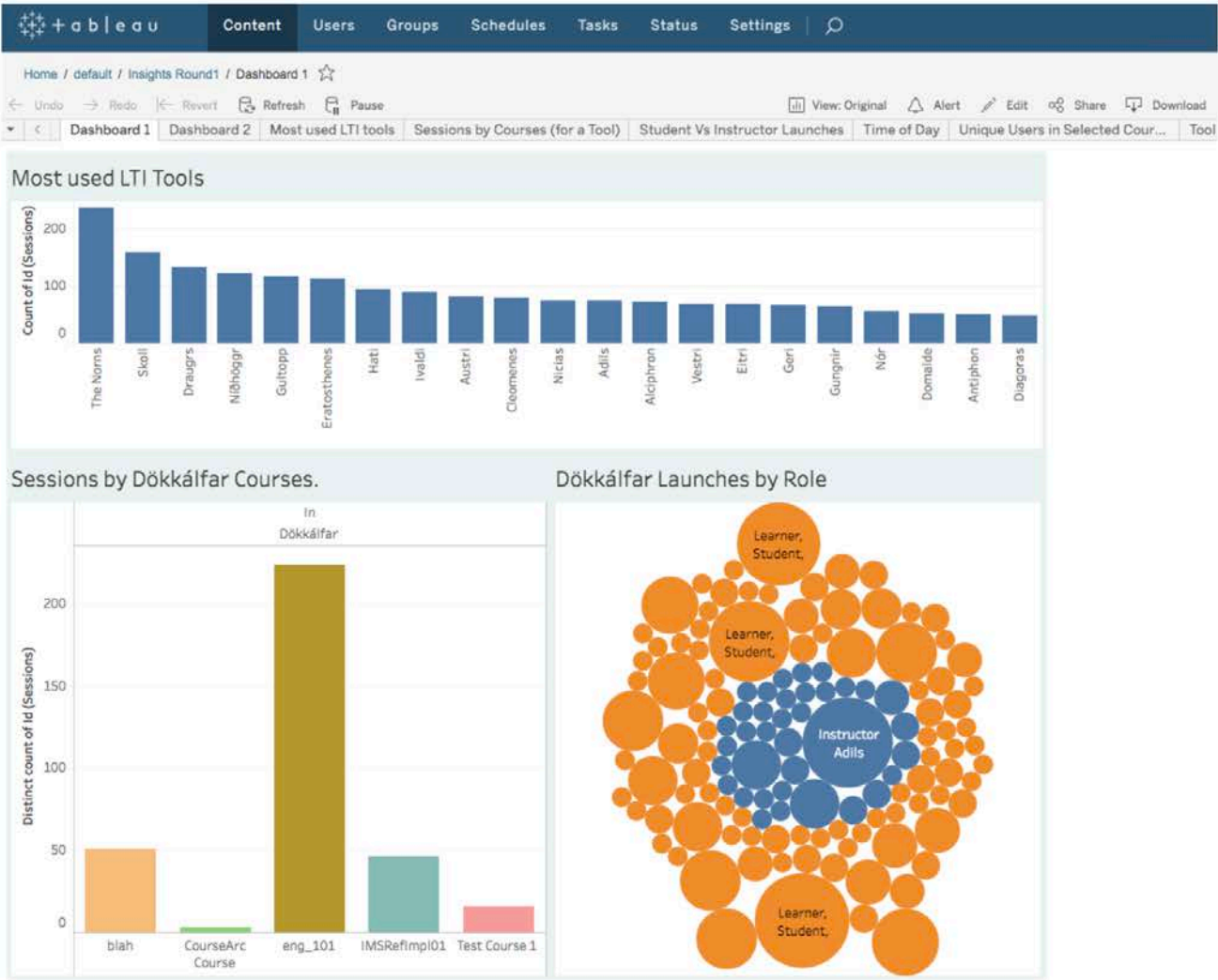
# The Role of Interoperability Standards to Enable Effective Data

Enabling flexible collection, processing and connection of data, information and analytics results to the right system at the right time to improve student success






LTI Insights leverages the **Caliper Analytics**® standard for collecting learning data and combines it with the secure connectivity of **Learning Tools Interoperability**® (LTI®) to pull together powerful insights into how, when, where, and by whom learning tools are utilized in your online teaching and learning environment.



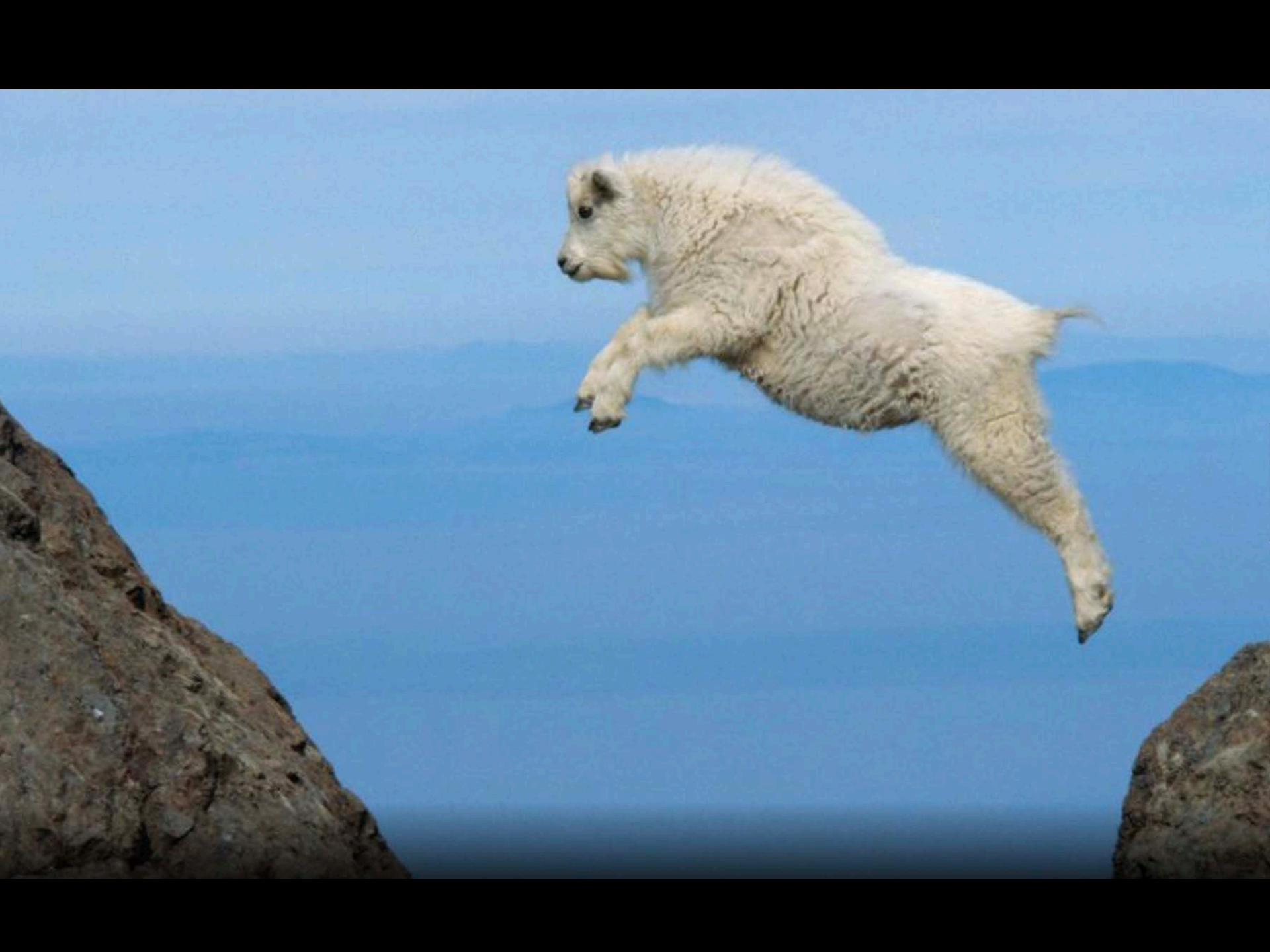
LTI INSIGHTS PROOF OF CONCEPT: DASHBOARD VIEW






If everything seems under  
control, you're just not going  
fast enough.”

— Mario Andretti





If you want to go fast, go  
alone. If you want to go far,  
go together.”

— African Proverb





# Thanks!

Rob Abel Ed.D.

Chief Executive Officer

IMS Global Learning Consortium [imglobal.org](http://imglobal.org)

[rael@imglobal.org](mailto:rael@imglobal.org)

 **Save the Date**



## LEARNING IMPACT LEADERSHIP INSTITUTE

**18-21 MAY 2020 | DENVER, COLORADO**

- Join over 600 decision-makers and innovators across higher education, K-12, government, and ed-tech supplier organizations from around the globe to collaborate and play a significant role in sustainable digital transformation of education
- Twelve program tracks, over 120 breakouts, bootcamps, hackathons and much more to help organizations adopt and leverage IMS edtech innovation ecosystem
- Call for presentations to open in early October
- Details will be available at [www.imglobal.org/lili2020](http://www.imglobal.org/lili2020)