By 2020...

- **Smart Devices**: 20B IoT devices
- **Smart City**: 250 PB per day
- **People**: 1.5 GB per day
- **Smart Factory**: 1 PB per day
- **Stadium**: 200 TB per day
- **Smart Office**: 150 GB per day
- **Autonomous Vehicle**: 5 TB per day
- **Smart Home**: 50 GB per day

**Total Data Generated**: 250 PB per day
Mindset change is not about picking up a few pointers here and there. It's about seeing things in a new way.

Carol Dweck, Mindset: The Psychology of Success
PHI•GIT•AL / ˈfɪjətəl / n

UNWILLING OR UNABLE TO DRAW A DISTINCTION BETWEEN THE PHYSICAL WORLD AND ITS DIGITAL EQUIVALENT
LEARNING HAS CHANGED
THE MODERN WORKPLACE HAS CHANGED
DO WE REALLY NEED TO CHANGE?
RISING TENSIONS TO BE ADDRESSED
THE GROWING DEMAND FOR HIGHER EDUCATION

- PRIMARY
- LOWER SECONDARY
- UPPER SECONDARY
- POST SECONDARY

SIGNIFICANT TALENT GAPS EXPECTED BY 2020 AND BEYOND

- LARGE TALENT SHORTAGE
- MEDIUM TALENT SHORTAGE
- NO TALENT SHORTAGE
- EMPLOYABILITY CHALLENGES

SOURCE: WORLD ECONOMIC FORUM
Individuals need to learn new skills for their jobs by 2020.

800 MILLION
50 MILLION

People are needed to fill open technical jobs by 2030.
STEM jobs in Computer Science.

Yet, only 8% of STEM graduates fill the pipeline.
**The Skills Gap**

- **48%** say it’s harder to find & retain data & analytics talent.
- **38%** had difficulty filling jobs in 2015.
- **81%** are looking for broader skillsets.
- **30%** of positions are held by women.
- **31M** positions left open by 2020.
- **Scarcity of talent is the highest risk to company growth.**
- **EXECUTIVES WW**
  - The need to lead in data and analytics, McKinsey, April 2016.
- **EMPLOYERS WW**
- **CEOs WW**
- **HIGH TECH EXECS**
- **RETIRING BABY BOOMERS**
  - Source: Georgetown University.
- **TECHNOLOGY INDUSTRY**
  - Source: LinkedIn.
Learn · Interact · Compete · Socialize · Relate · Participate

Platforms Supporting Departmental Needs
Proactively working with students’ everyday challenges that are beyond their control by creating educator awareness of the events that impact performance in the classroom.
Understanding and adapting to student’s life events by creating awareness of the outside circumstances that impact students personal life
Identifying a student’s personal attitudinal drivers to more effectively and efficiently influence their likelihood of persistence and completion by analyzing their activity, performance, sentiment, interests and participation beyond the classroom.
LEARNING HAS CHANGED

MIXED REALITY

ARTIFICIAL INTELLIGENCE

QUANTUM COMPUTING
LEARNING HAS CHANGED

MIXED REALITY

ARTIFICIAL INTELLIGENCE

QUANTUM COMPUTING
THE DATA JOURNEY
COLLECTION
PREDICT
DRIVE OUTCOMES
THREE CONVERGING TECHNOLOGIES

DATA

CLOUD PROCESSING

MACHINE LEARNING
WHO IS AT GREATER RISK?
Panthera uncia  SNOW LEOPARD
Population: 5,000*

ARTIFICIAL INTELLIGENCE
AUGMENTED INTELLIGENCE
WHO IS AT GREATER RISK?
WHO IS AT GREATER RISK?

- Resilience
- Socialization
- Optimism
- Sentiment
- Consistency
- Participation
- Support
- Behaviour
- Attendance

Low: A, B
Average: A, B
High: A, B
For education transformation to be effective, an institution must carefully analyze, design, develop, implement and evaluate their plan for change. Carefully crafting a vision is the first step toward a successful, holistic education transformation.

The Microsoft Education Transformation Framework provides practical advice to develop a strategy for digital transformation; supporting new approaches to:

- Manage student success and lifecycle
- Modernize teaching and learning
- Empower research
- Provide efficient and effective physical and digital infrastructure

http://aka.ms/etfhe
Establishing a holistic vision and integrating multiple tools and data into a single, intelligent system paves the way to streamlined processes and transformative outcomes.

- Lifelong Learning
- Connected Experiences
- Limitless Research
- Effective Institutions