K-12 Educational Transformation Workshop

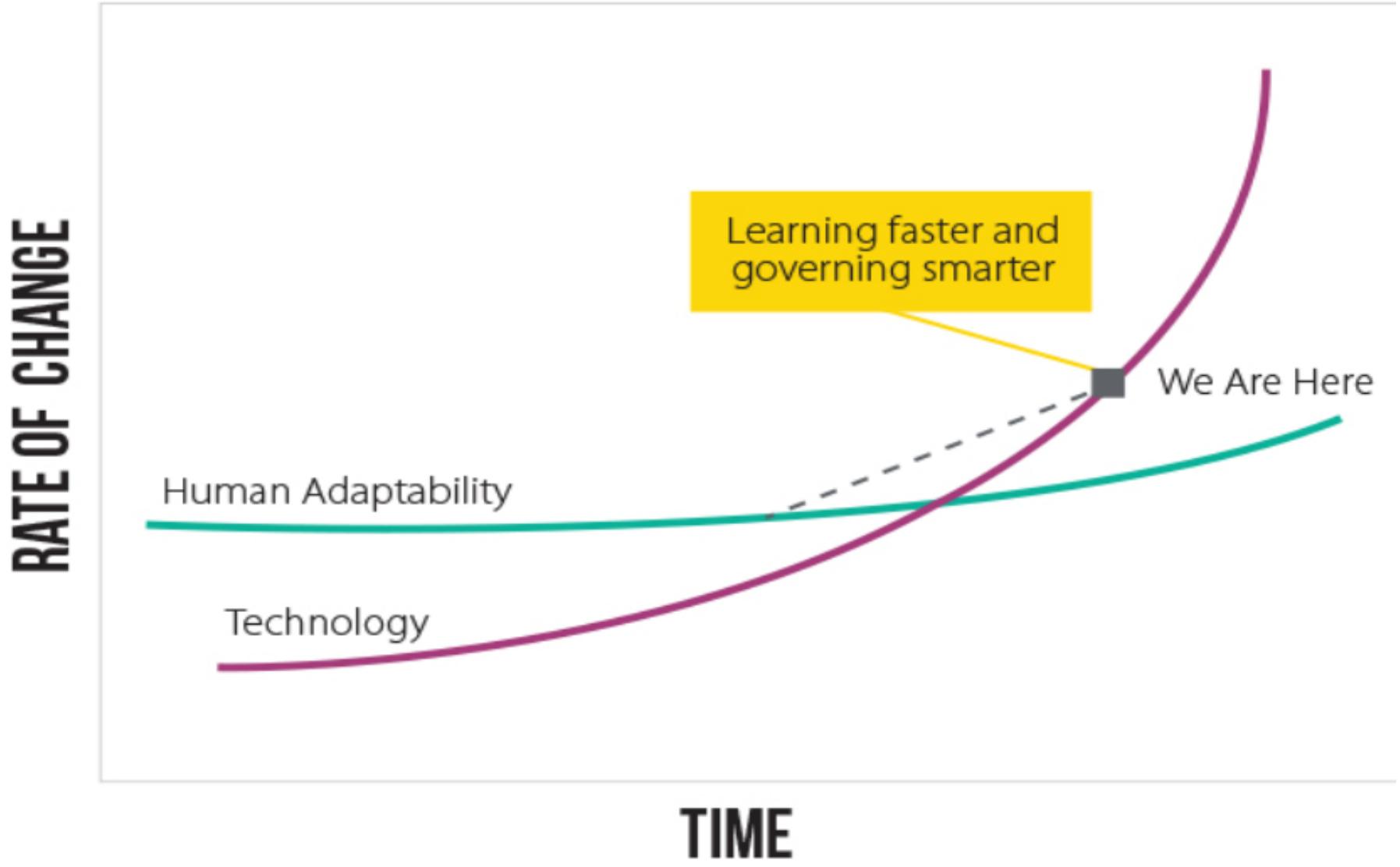
Stelios Christakos, Sofia Education Experts, Chief Education Officer

SoFIA School of the Future International Academy | Education Experts

"The pathway to new technologies requires a parallel investment in skills development – making sure people have the requisite skills to participate in an increasingly digital society."

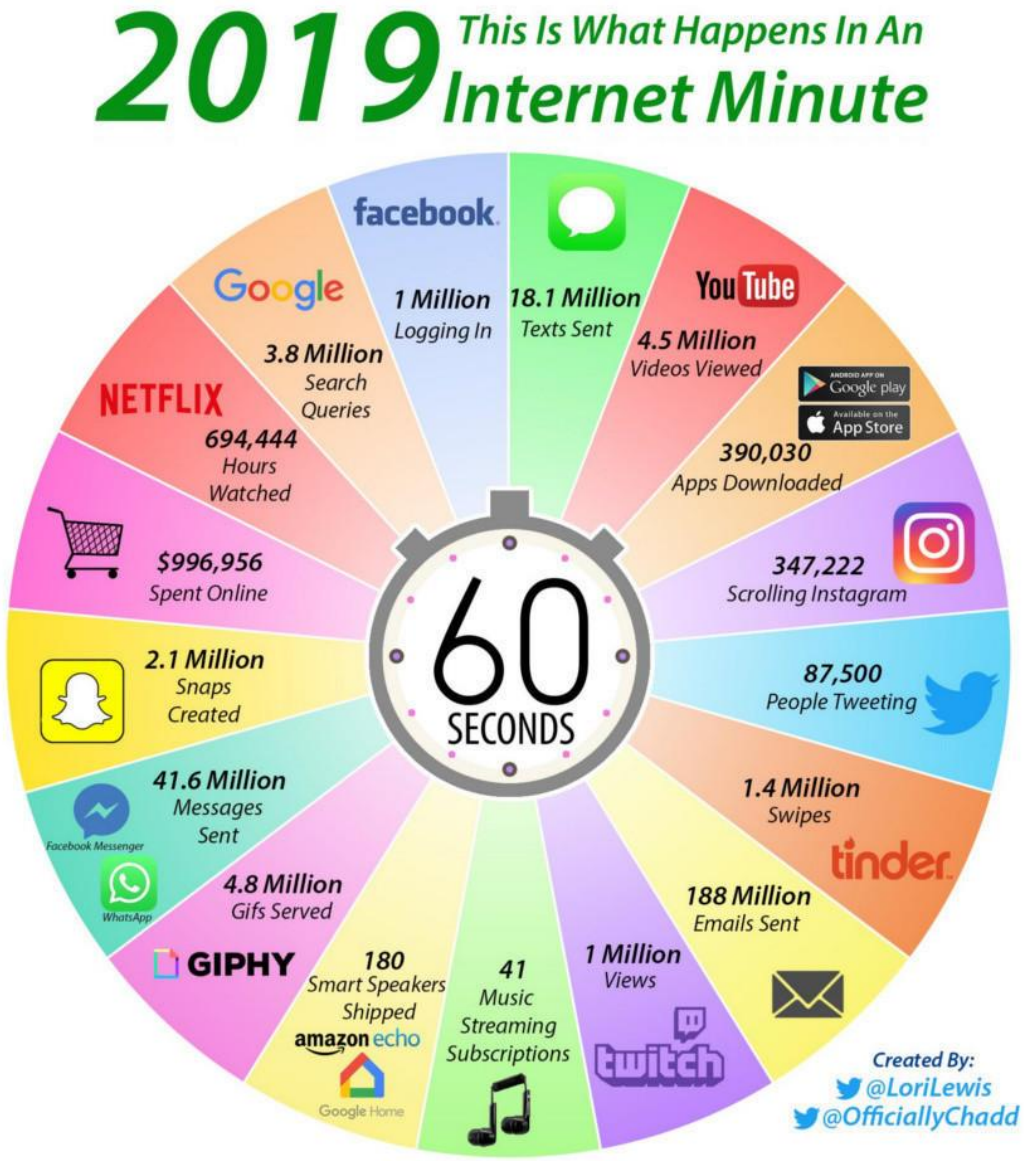
-- Satya Nadella, CEO, author
Hit Refresh, 2017

“Thank you for being late”

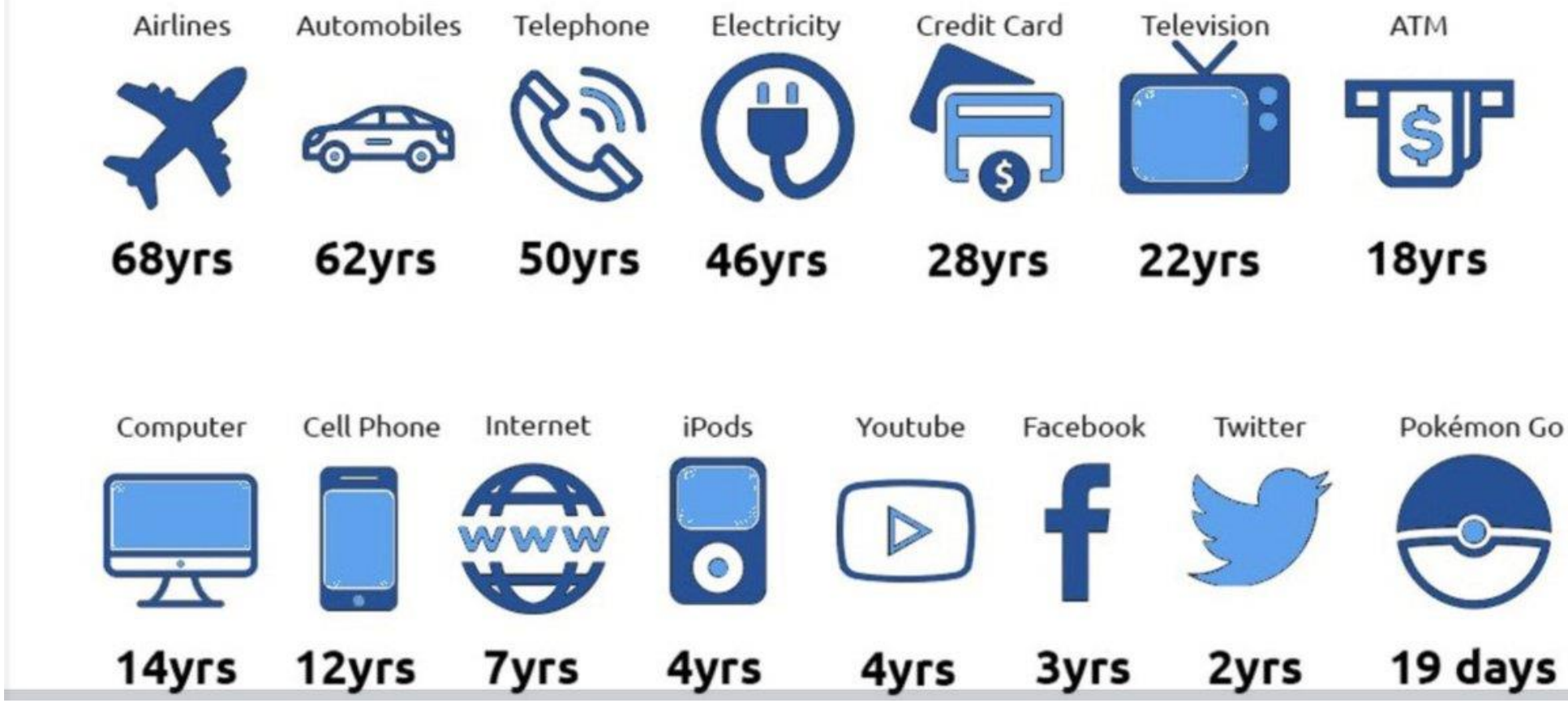


Source: Thomas Friedman book “Thank you for Being Late: an Optimist's Guide to Thriving in the Age of Accelerations”

Just a minute…



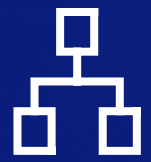
NUMBER OF YEARS IT TOOK FOR EACH PRODUCT TO GAIN 50 MILLION USERS:



EDUCATION

What Will Make Today Successful?

TRANSFORMATION FRAMEWORK



Gain a strategic and holistic view of education transformation at a system level

Learn how technical solutions can support your transformation

Explore a roadmap for transformation and learning digitalization

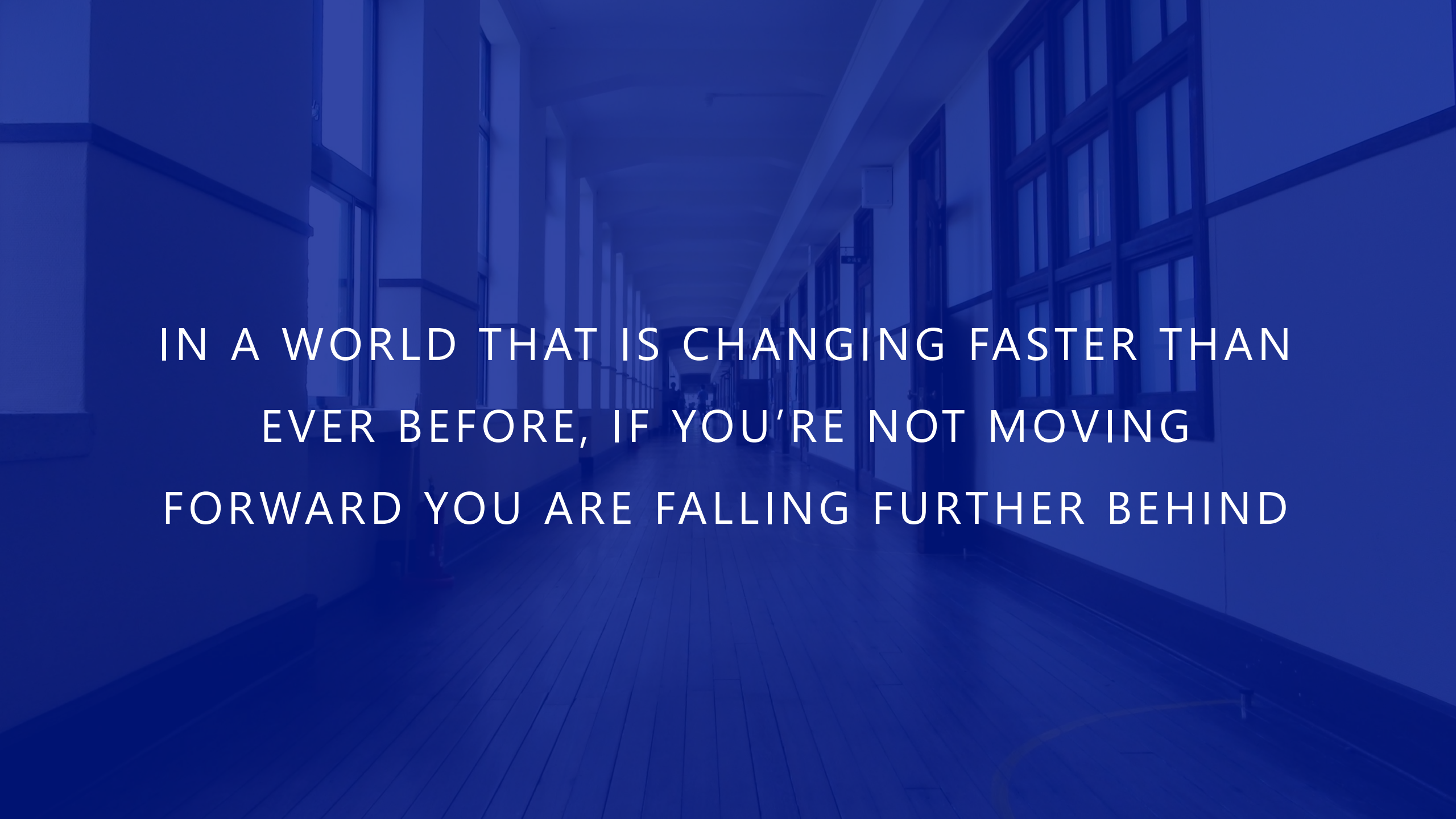
Create a draft digital transformation plan that Microsoft can help you realize

EDUCATION

Why Transformation?

TRANSFORMATION FRAMEWORK

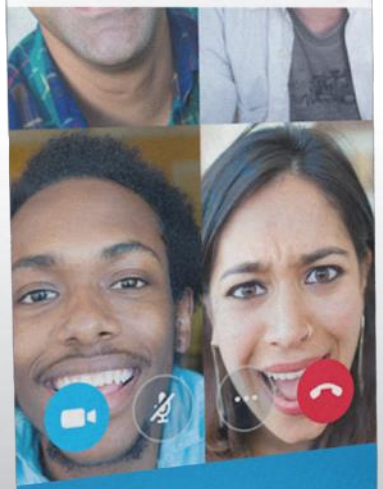
> Education is the most powerful weapon you can use to change the world.”
>
> - Nelson Mandela


IN A WORLD THAT IS CHANGING FASTER THAN
EVER BEFORE, IF YOU’RE NOT MOVING
FORWARD YOU ARE FALLING FURTHER BEHIND

THE WORLD'S LARGEST
HOTEL COMPANY OWNS
NO PROPERTY

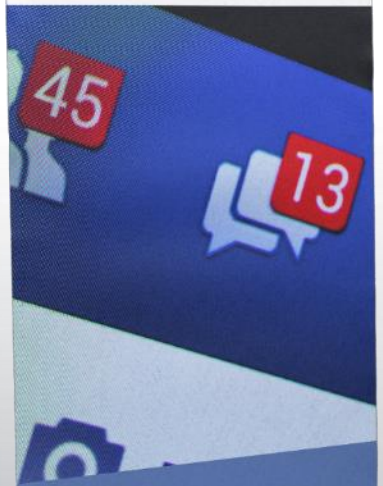
airbnb

3 BILLION MINUTES
OF CALLS PER DAY
WITH NO TELCO
INFRASTRUCTURE



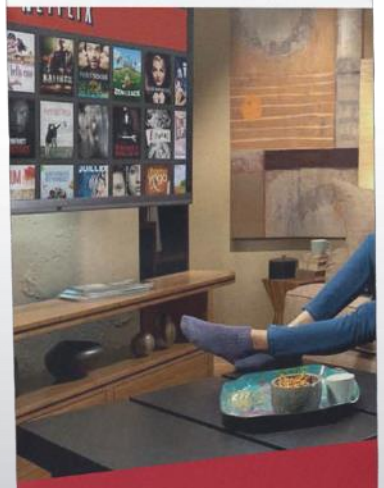
skype

THE WORLD'S LARGEST
SOCIAL MEDIA OWNER
CREATES NO
CONTENT



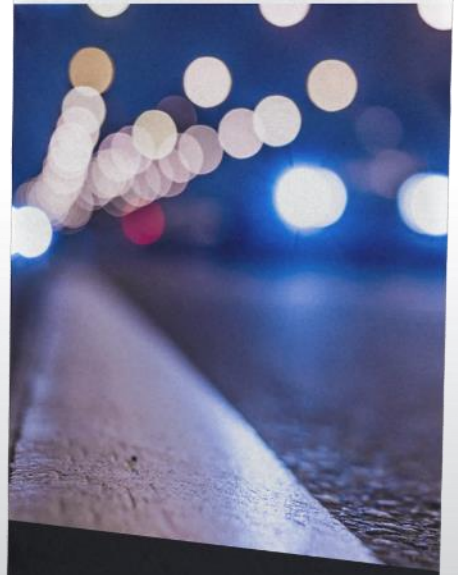
facebook

THE WORLD'S LARGEST
MOVIE PROVIDER OWNS
NO CINEMAS



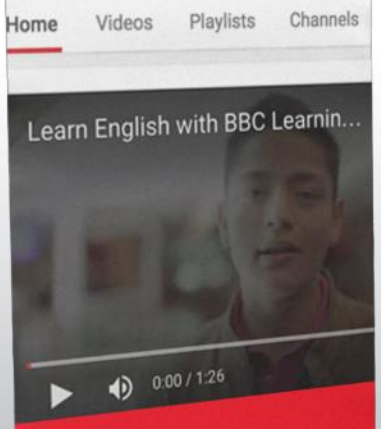
NETFLIX

THE WORLD'S LARGEST
TAXI COMPANY OWNS
NO CARS



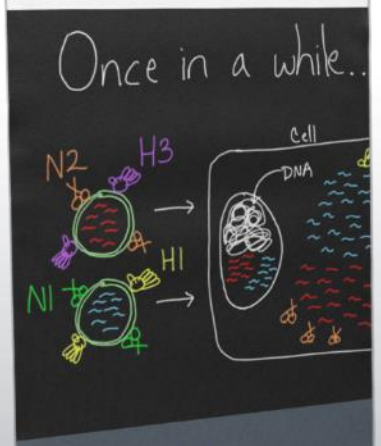
UBER

THE WORLD'S LARGEST
LEARNING PLATFORM HAS
NO TEACHERS



YouTube

THE WORLD'S LARGEST
LESSON PROVIDER HAS
NO CLASSROOMS



KHAN ACADEMY

THE WORLD'S LARGEST
NON-PROFIT REGISTERED
COURSE PROVIDER HAS
NO REGISTRAR

edX

THE WORLD'S LARGEST
FOR-PROFIT ONLINE
CERTIFICATION PROVIDER IS
NOT ACCREDITED

coursera

THE WORLD'S FASTEST
GROWING STUDENT LOAN
REFINANCING GROUP IS
NOT A BANK

SoFi

Today's young people differ from yesterday's

	B Baby boomer 1940–59	X Gen X 1960–79	Y Gen Y (millennial) 1980–94	Z Gen Z 1995–2010
Context	• Postwar • Dictatorship and repression in Brazil	• Political transition • Capitalism and meritocracy dominate	• Globalization • Economic stability • Emergence of internet	• Mobility and multiple realities • Social networks • Digital natives
Behavior	• Idealism • Revolutionary • Collectivist	• Materialistic • Competitive • Individualistic	• Globalist • Questioning • Oriented to self	• Undefined ID • "Communaholic" • "Dialoguer" • Realistic
Consumption	• Ideology • Vinyl and movies	• Status • Brands and cars • Luxury articles	• Experience • Festivals and travel • Flagships	• Uniqueness • Unlimited • Ethical

McKinsey&Company

The core of Gen Z is the idea of manifesting individual identity.

The search for truth....

The search for the truth is at the root of all Generation Z's behavior.

'Undefined ID'
"Don't define yourself in only one way"

Expressing individual truth

'Communaholic'
"Be radically inclusive"

Connecting through different truths

'Dialoguer'
"Have fewer confrontations and more dialogue"

Understanding different truths

Realistic
"Live life pragmatically"

Unveiling the truth behind all things

McKinsey&Company

Communication Channels

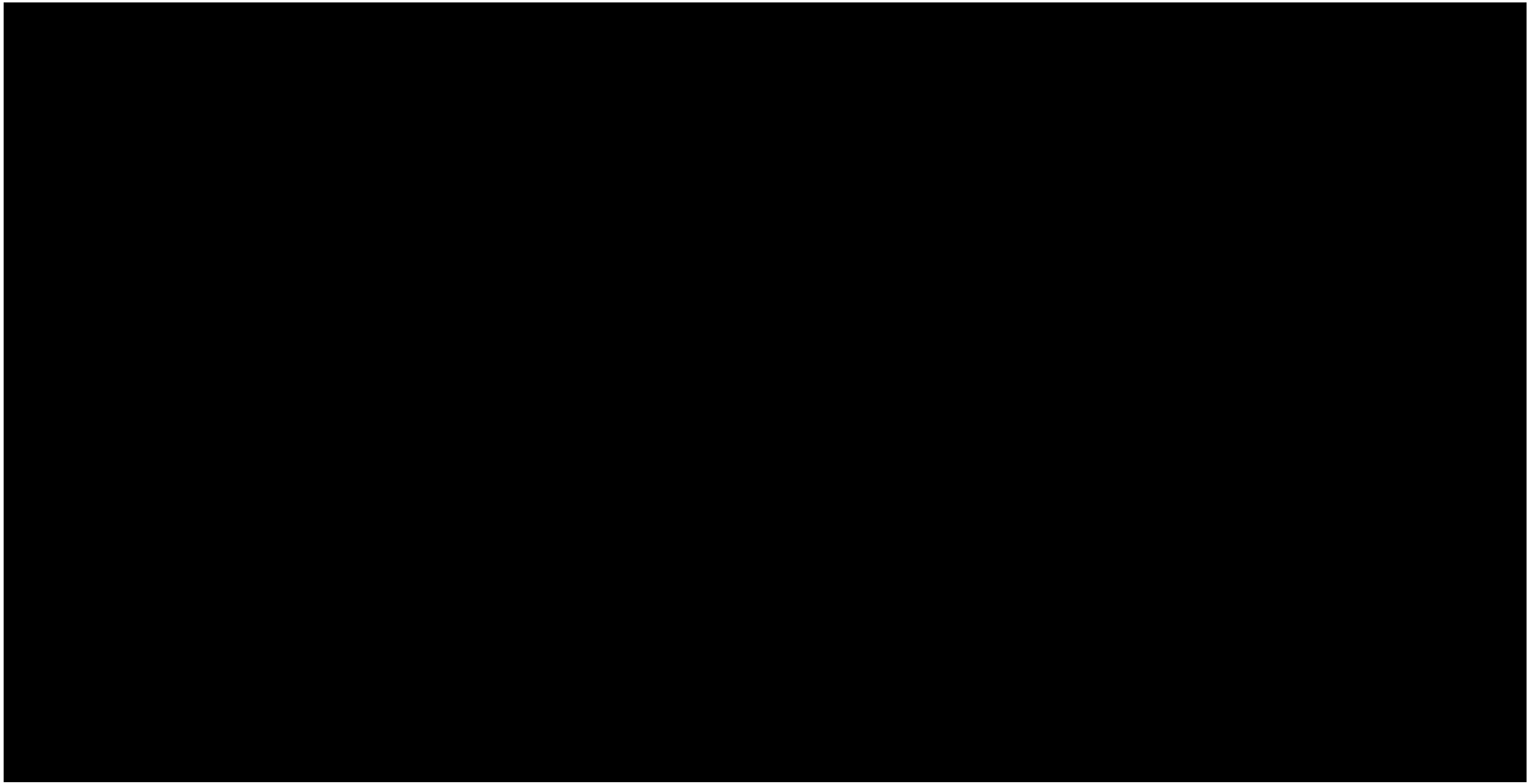
- In a LivePerson survey investigating the **"digital lives of Millennials and Gen Z,"** nearly 75 percent of respondents told researchers that they're rather text than talk on the phone. Concludes LivePerson global head of communications and research Rurik Bradbury of the findings, "What we see in the research data is **the phone truly becoming an extension of the self, and the platforms and apps within it -- digital life -- occupying more than their offline interactions**."

- But **don't assume that digital means impersonal**. Across all channels, personalization is the key to cutting through the noise and catching the attention of Gen Z. Not only that, but while the majority may prefer texting, plenty of them -- 39 percent, according to data from LeadSquared -- say that **one-on-one communication** is the most effective way to reach them.

- Gen Z expert and co-writer of Generation Z Goes to College Corey Seemiller told immersive technology company YouVisit, "I think in a world where we envision Generation Z being digital natives, **we also envision them only being digitally competent and only preferring digital methods of communication**. But in many communications **they still like a personal touch**. So, as [admission professionals] think about recruitment, remember that the **face-to-face thing is still very important to them–probably**, more important than people are giving it credit for."

Pit stops…

Then and now

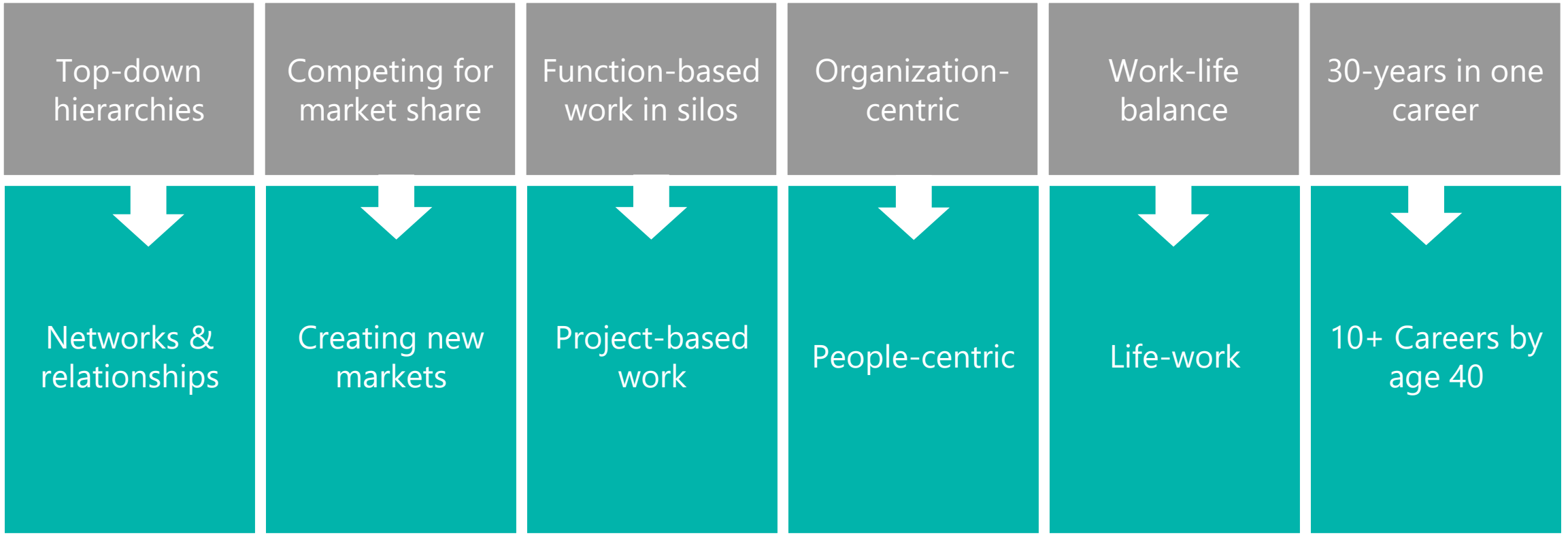


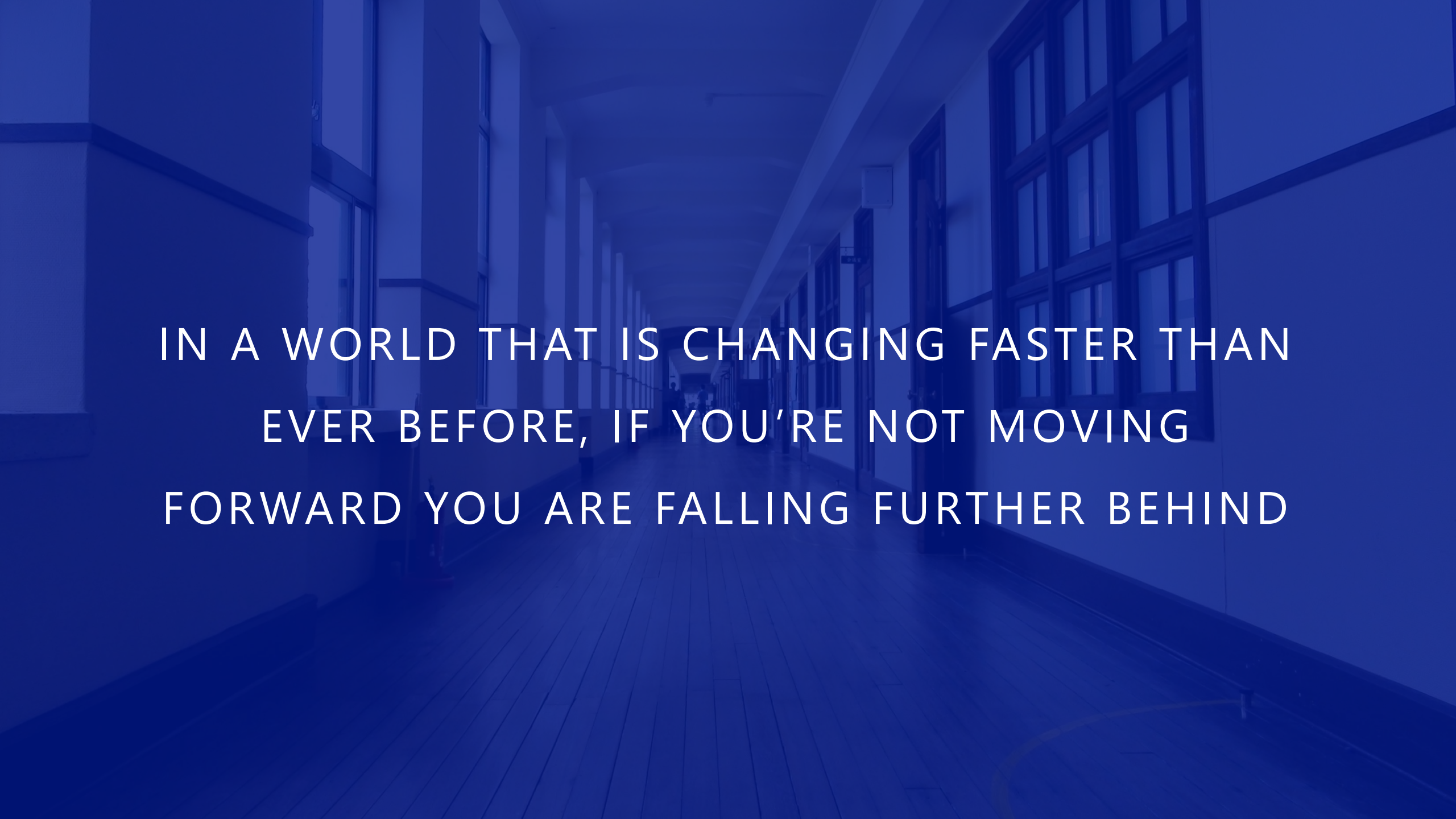
Discussion

What did you find interesting?

What skills will young people need?

From 20th century jobs to 21st century work




IN A WORLD THAT IS CHANGING FASTER THAN
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FORWARD YOU ARE FALLING FURTHER BEHIND

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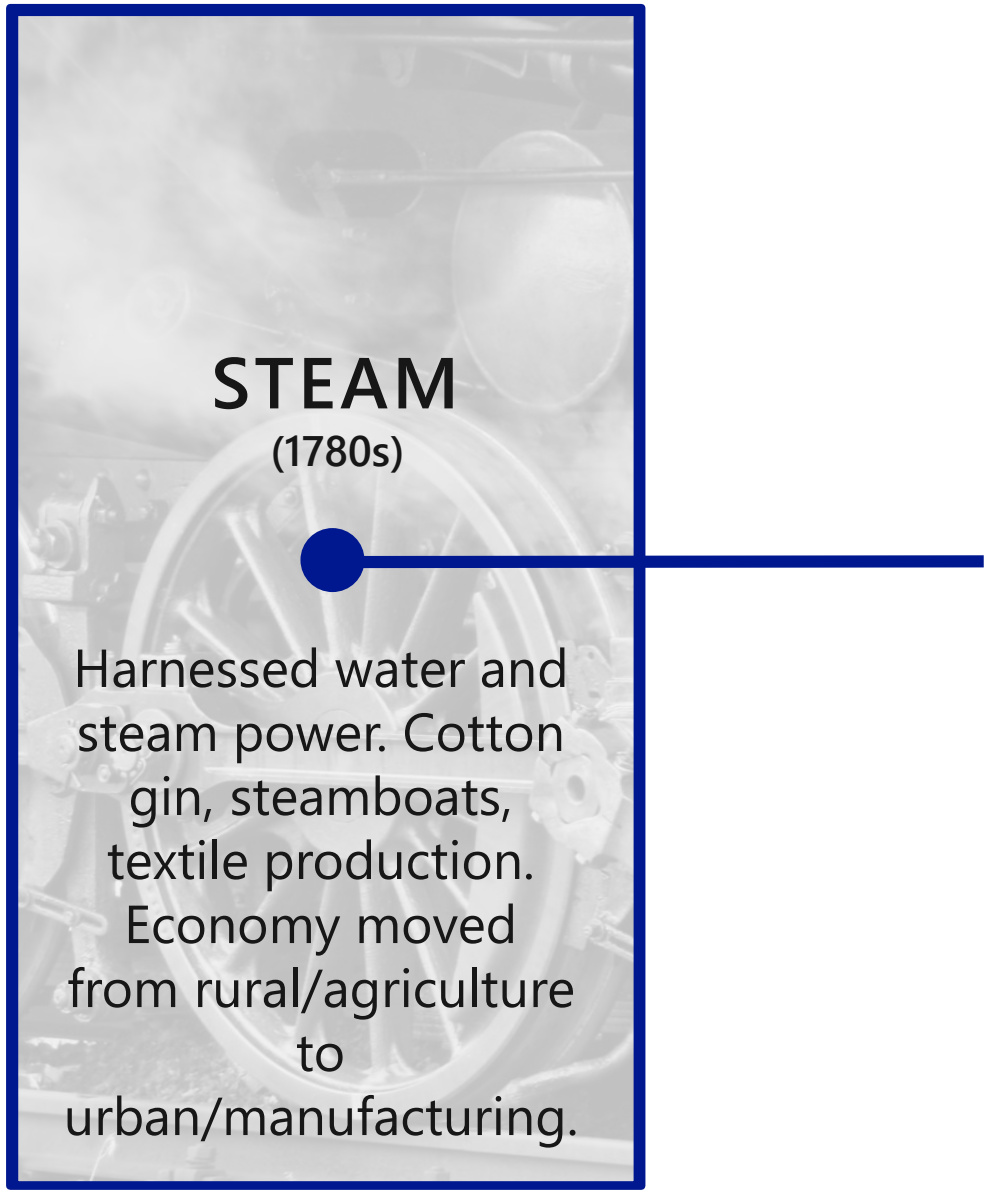
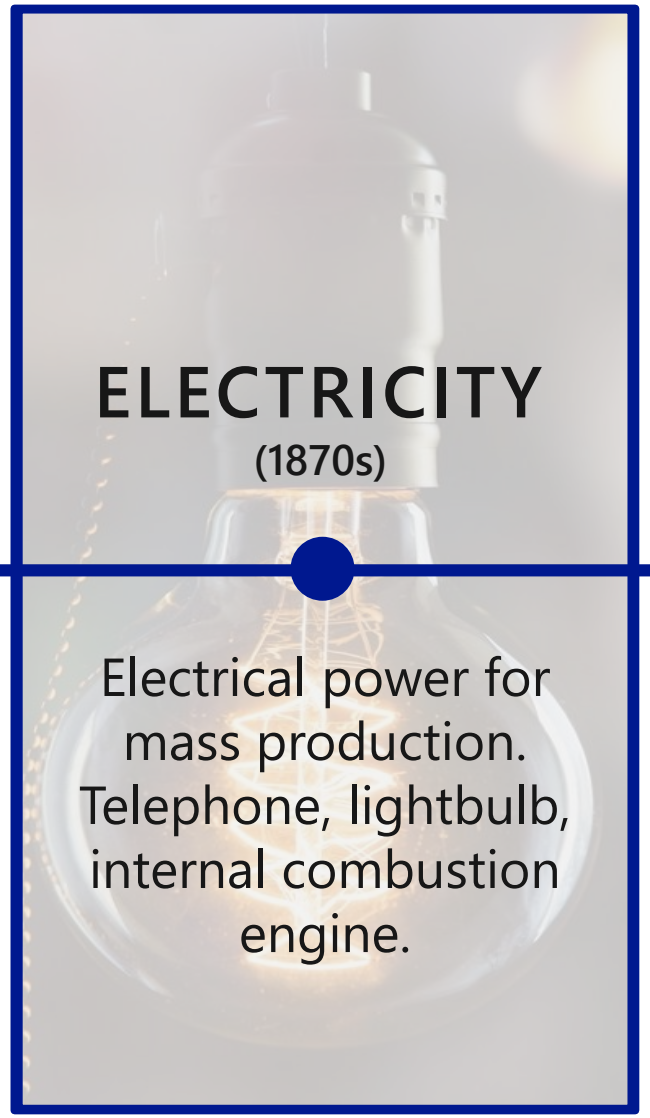
The Fourth Industrial Revolution (4IR)

TRANSFORMATION FRAMEWORK

The Fourth Industrial Revolution is the current and developing environment in which disruptive technologies and trends such as the Internet of Things (IoT), robotics, virtual reality (VR) and artificial intelligence (AI) are changing the way we live and work.





ELECTRICITY

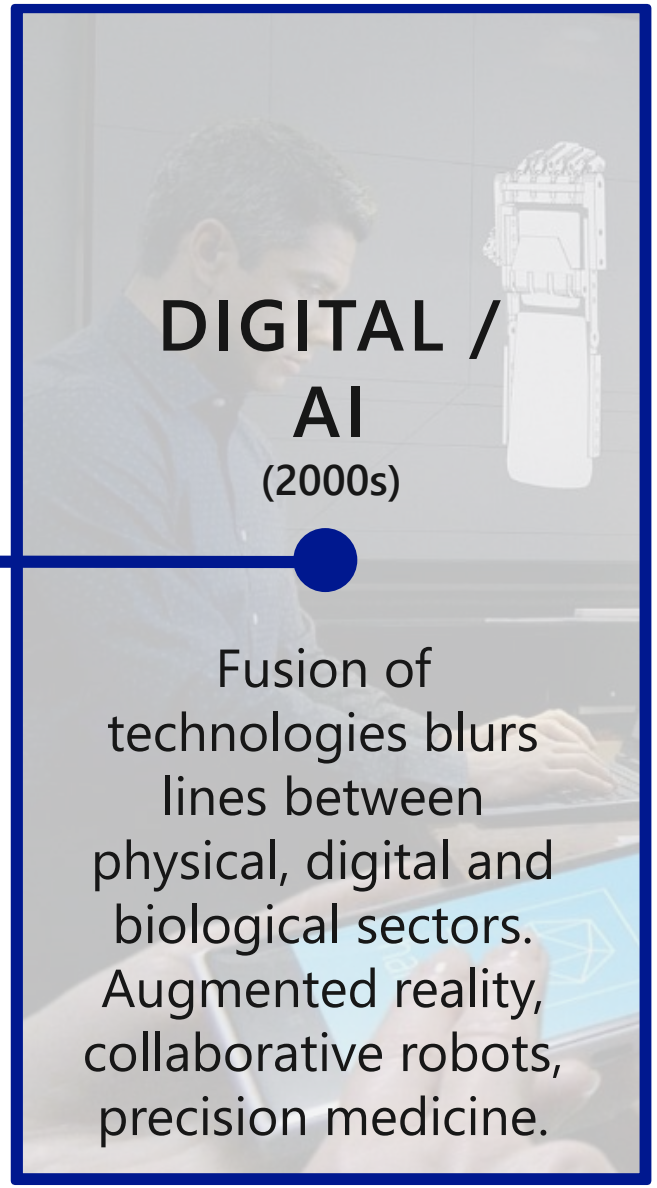
(1870s)

Electrical power for mass production. Telephone, lightbulb, internal combustion engine.

ELECTRONICS

(1970s)

Digital devices, electronics and information technology, personal computers, telecom networks, automated production.



DIGITAL / AI

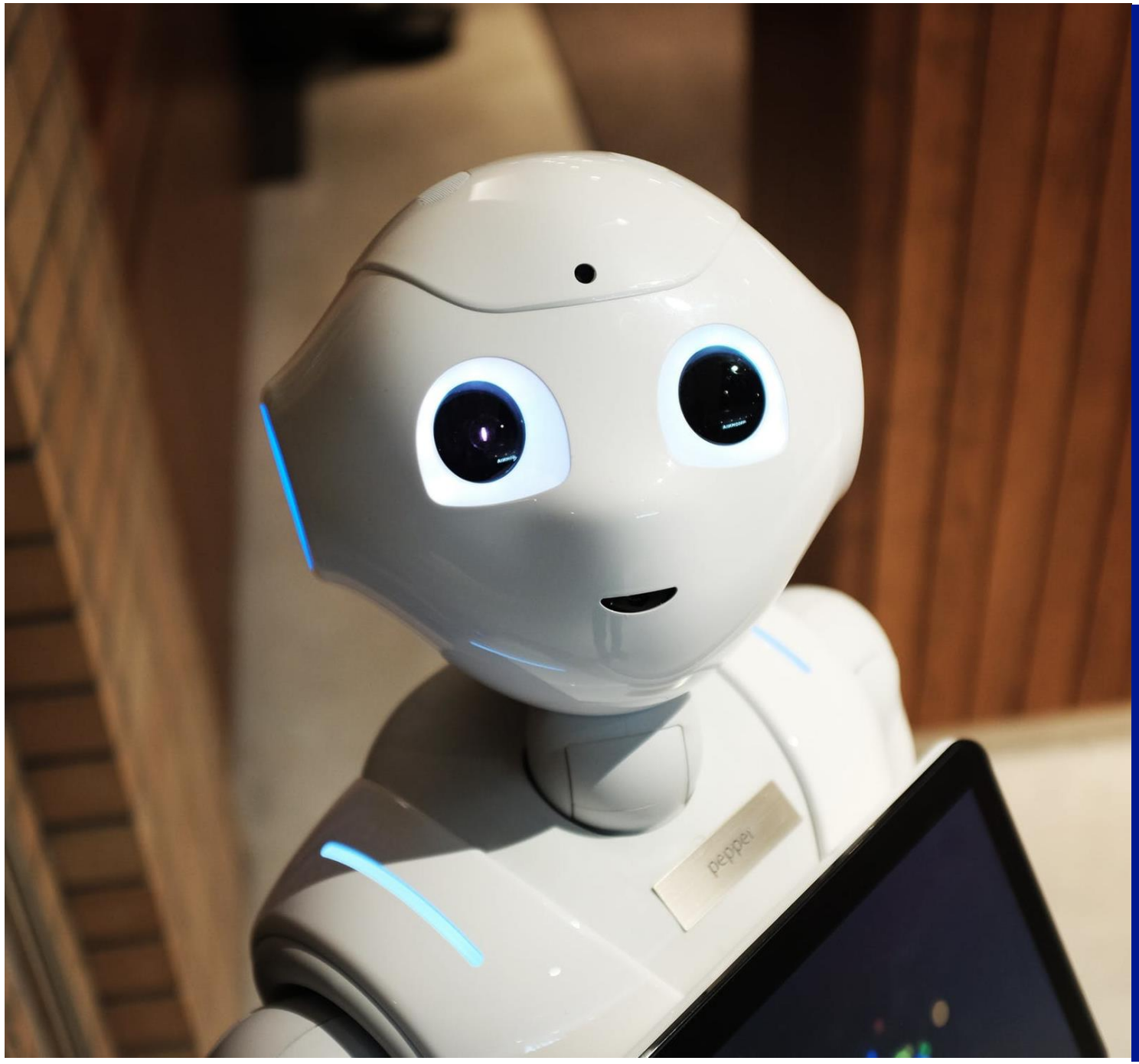
(2000s)

Fusion of technologies blurs lines between physical, digital and biological sectors. Augmented reality, collaborative robots, precision medicine.

What's Next?

"While the Fourth Industrial Revolution is in many ways coming right on the heels of the digital revolution, it will continue to evolve as new technologies develop and mature."

- **Robert D. Atkinson**, President of the Information Technology and Innovation Foundation



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Artificial Intelligence

TRANSFORMATION FRAMEWORK

Artificial Intelligence (AI) is the theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.[1]

Through AI, machines can analyze images, comprehend speech, interact in natural ways and make predictions using data. Support personalized learning at scale by implementing easy-to-manage AI applications.

EDUCATION

Predictive Analytics

TRANSFORMATION FRAMEWORK

Predictive Analytics is a method of data analysis techniques that predicts trends and finds useful patterns. It is a branch of artificial intelligence based on the idea that systems can learn from data, identify patterns, and make recommendations and sometimes- decisions with minimal human intervention.

Focus your energy on teaching by allowing adaptive learning platforms to focus on autonomously flagging student learning difficulties and dynamically notifying teachers to determine necessary learning interventions.

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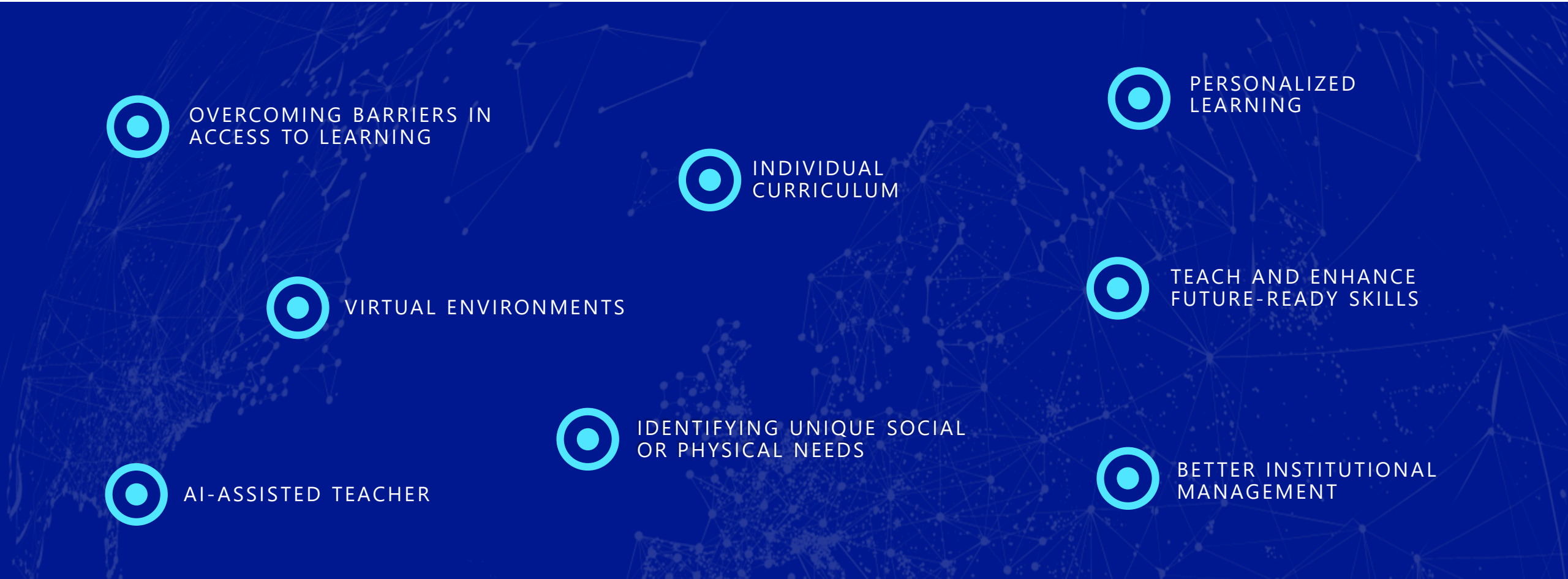
Future of the Classroom with AI

TRANSFORMATION FRAMEWORK



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Improve Student Learning Outcomes with Predictive Analytics

TRANSFORMATION FRAMEWORK

1. Identify key factors that influence student outcomes
2. Provide timely intervention and corrective action to at-risk students
3. Improve student academic performance

EDUCATION

Digital Transformation

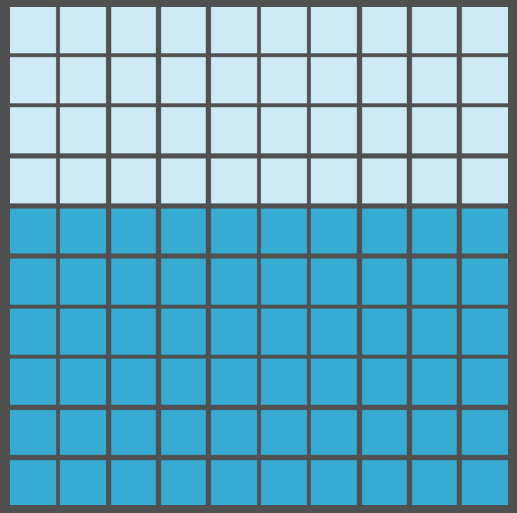
TRANSFORMATION FRAMEWORK

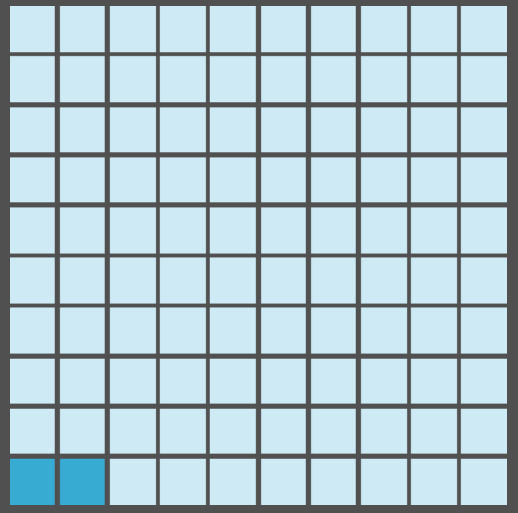
Digital Transformation is about reimagining how you bring together people, data and processes to create value for your stakeholders (educators, parents, students, etc.) and maintain a competitive advantage in a digital-first world.

Empower students, across all demographics, with the skills they need to succeed in an AI-enabled world.

The growing skills gap

60% of STEM jobs are in Computer Science





Yet only 2% of STEM graduates fill the pipeline

By 2020, there will be

1.3 million unfilled jobs in europe

Most in cloud-related fields

E-skills Monitor Report 2013


By 2020, there will be
1 million more available jobs
than QUALIFIED COMPUTER SCIENCE GRADUATES
US NEWS AND WORLD REPORT

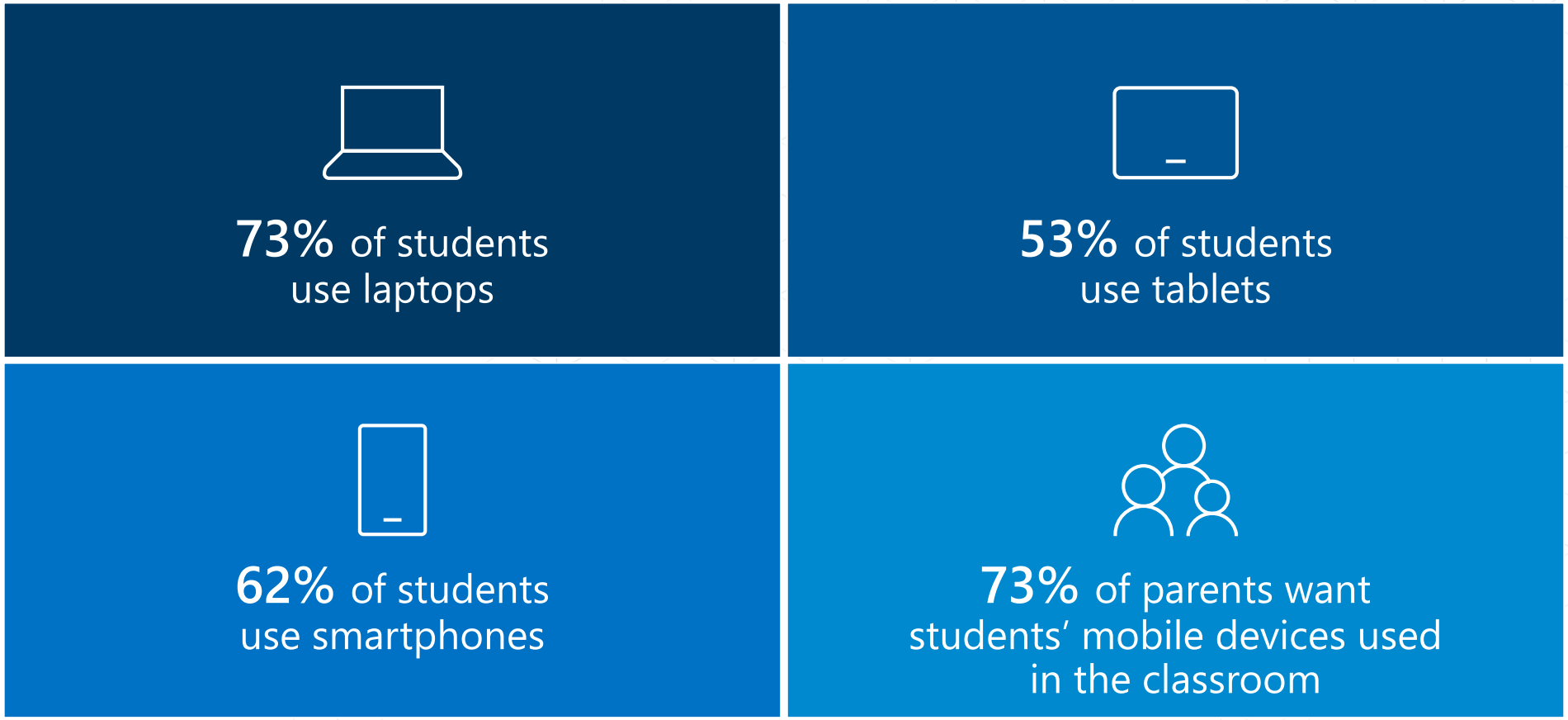
Preparing the class of 2030

New research offers insight on the future of learning

Microsoft research conducted in collaboration with McKinsey & Company's Education Practice.

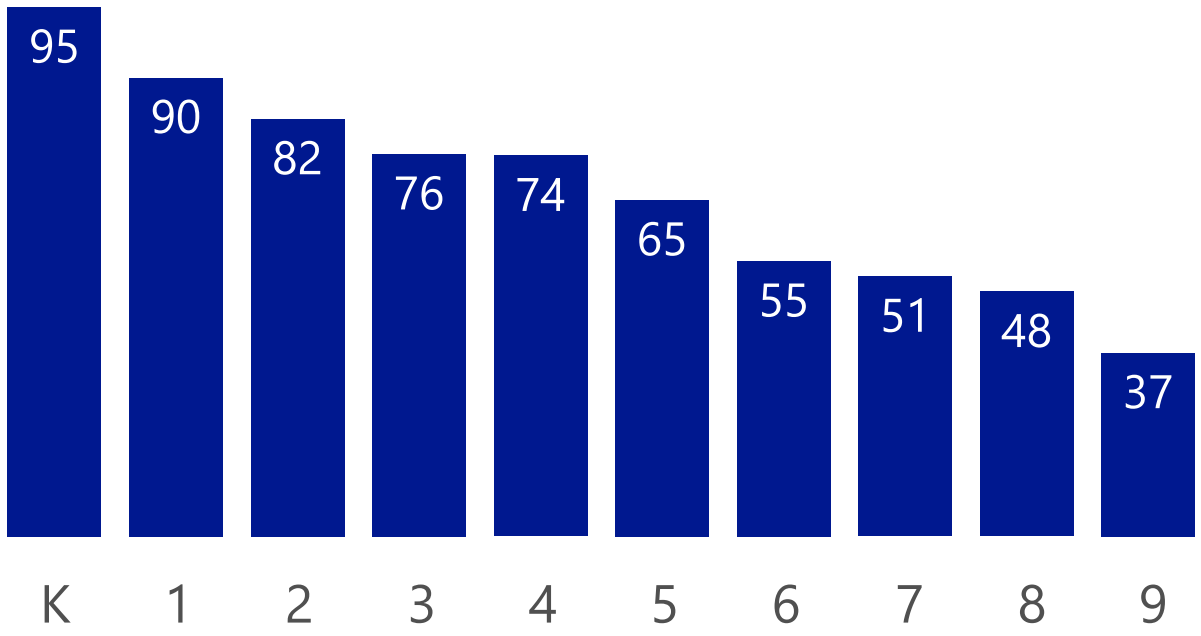
Microsoft

Macro trends in learning: K–12 education



Microsoft

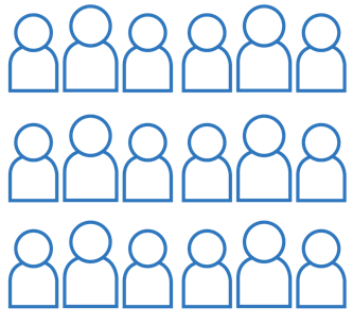
Do you love school?



Lee Jenkins: School Administrator May 2012.
Reversing the Downslide of Student Enthusiasm

- Today's kindergartners will graduate better prepared for their futures if they have a **strong social and emotional foundation that is developed in a personalized learning environment**
- The study revealed new insights into the knowledge and experiences students will need to be "life-ready" and not simply "work-ready."

Learn more about the Class of 2030



The study incorporated:

surveys and focus groups of

2,000 students and 2,000 teachers

+

input from 70 global thought leaders

+

analysis of 150 pieces of previous research

Technology creates opportunity

Personalized, inclusive, and immersive learning experiences fostered by technology create **opportunities to develop emotional and cognitive skills in conjunction with academic learning.**

Impact on time:

Teachers get up to **30% more time back** with the right technology

Global Reference Framework on Future Competence (INTERNATIONAL BUREAU OF EDUCATION of UNESCO)

The seven stable macro competences, listed here in order of importance, entail several different micro adaptable competences.

1
Lifelong learning
Curiosity
Creativity
Critical thinking
...

2
Self–agency
Initiative/Drive/Motivation
Endurance/Grit/Resilience
Responsibility
...

3
Interactively using diverse tools and resources
Impactful use of resources
Efficient use of resources
Responsible consumption
...

4
Interacting with others
Teamwork
Collaboration
Negotiation
...

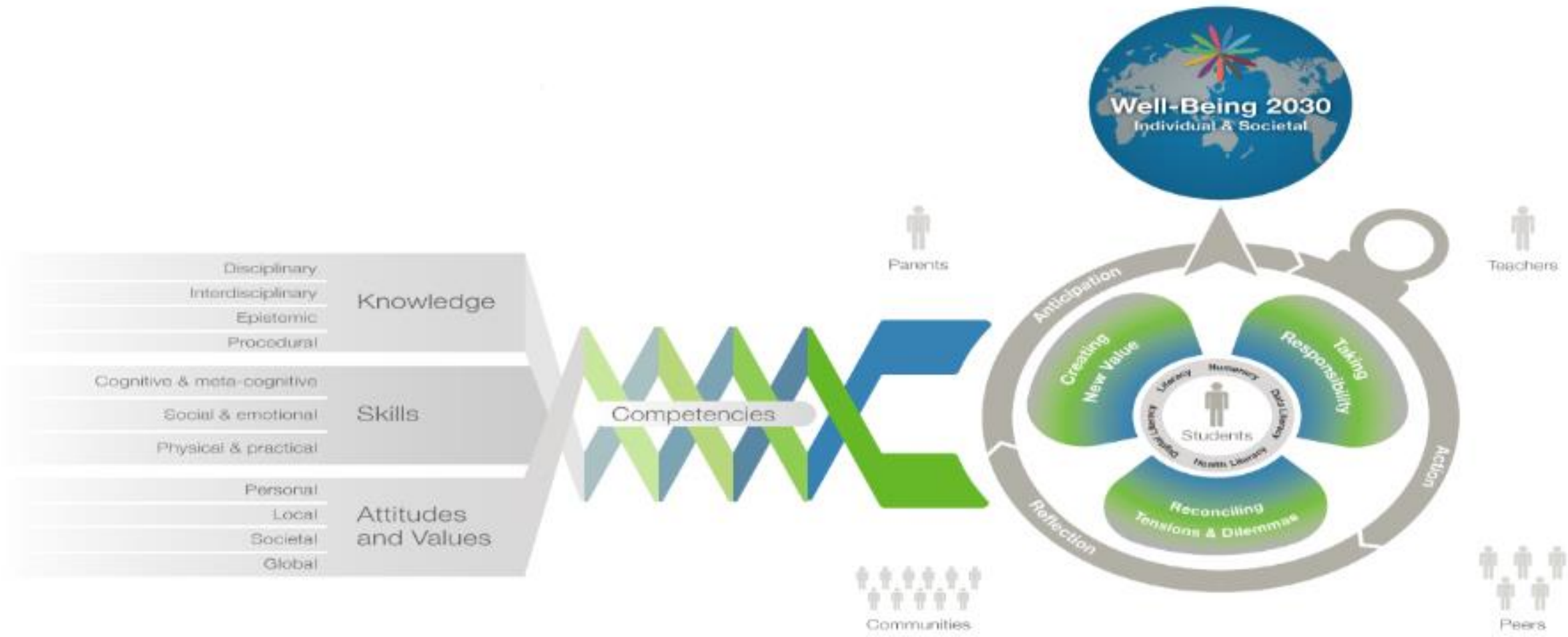
5
Interacting in and with the world
Being local and global
Balancing rights with privileges
Balancing freedoms with respect
...

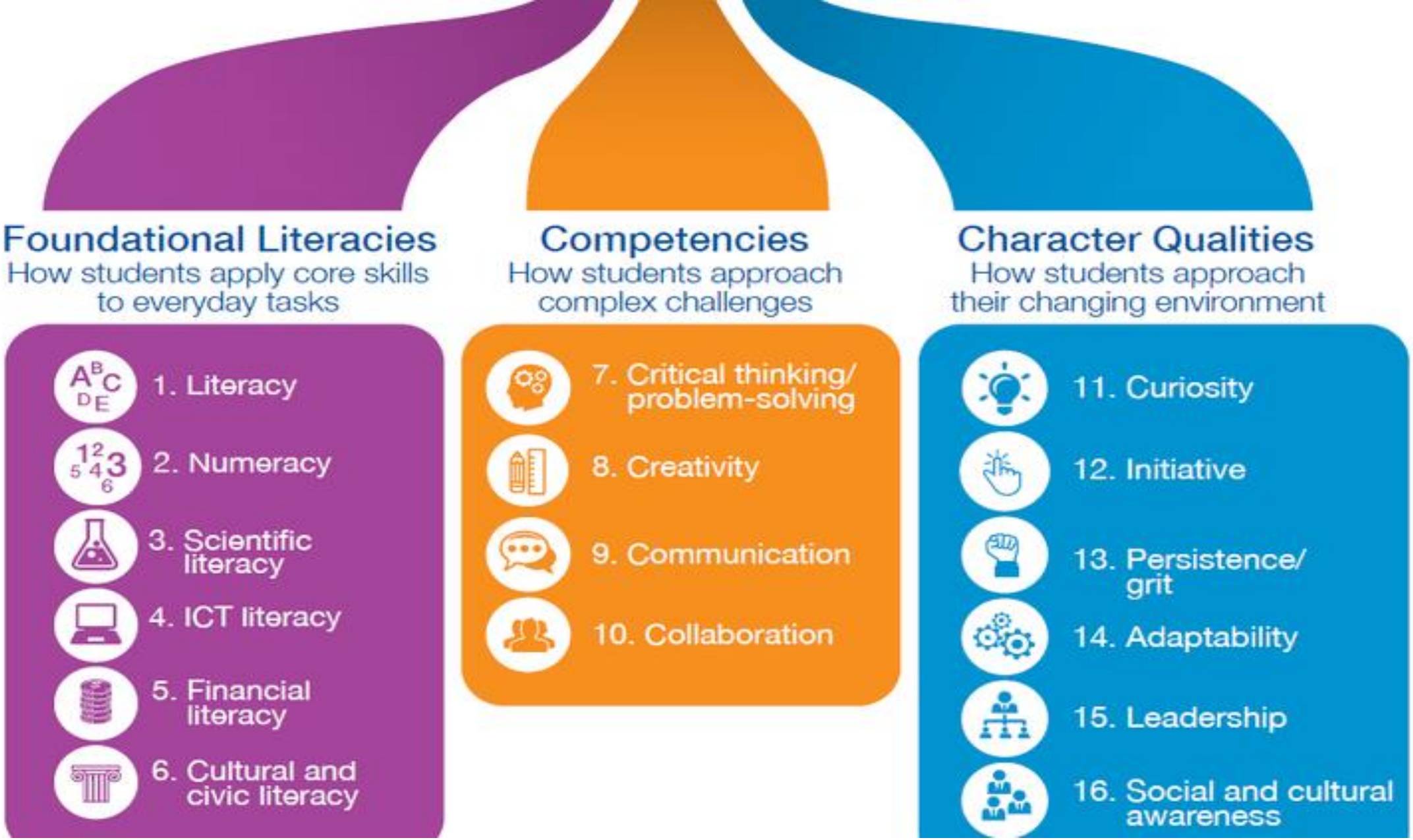
6
Trans-disciplinarity
STEM
Humanities
Social sciences
...

7
Multi-literateness
Reading & writing
Numeracy
Digital
...

The Future of Education and Skills: OECD Education **2030 Framework** Knowledge, skills, attitudes

OECD Education 2030 stakeholders have co-developed the Learning **Compass 2030** that shows how young people can




Foundational Literacies
How students apply core skills to everyday tasks
1. Literacy
2. Numeracy
3. Scientific literacy
4. ICT literacy
5. Financial literacy
6. Cultural and civic literacy
Competencies
How students approach complex challenges
7. Critical thinking/ problem-solving
8. Creativity
9. Communication
10. Collaboration
Character Qualities
How students approach their changing environment
11. Curiosity
12. Initiative
13. Persistence/ grit
14. Adaptability
15. Leadership
16. Social and cultural awareness

Source: WEF

Skills 2022

2022 Skills Outlook

WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

Growing

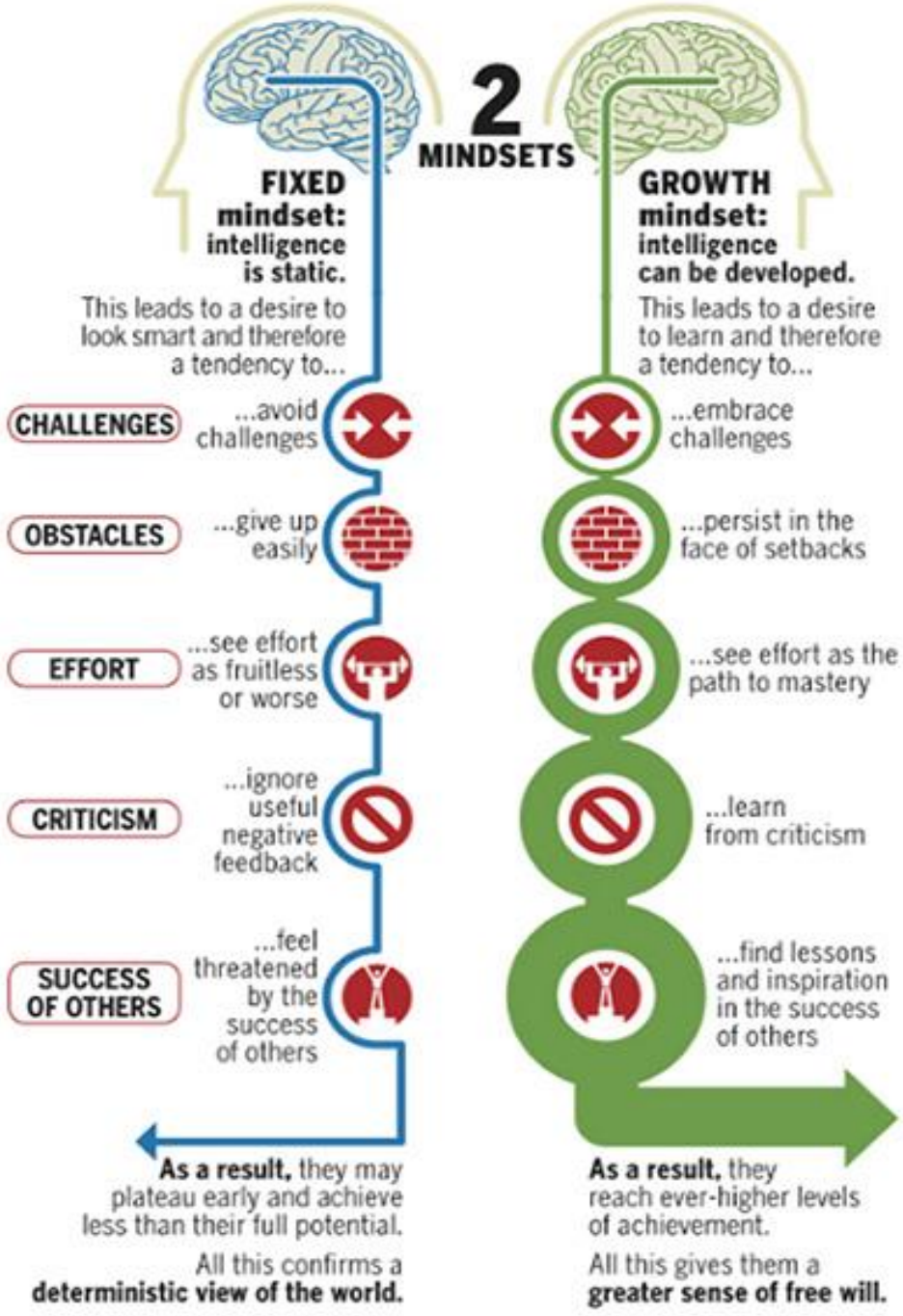
1. Analytical thinking and innovation
2. Active learning and learning strategies
3. Creativity, originality and initiative
4. Technology design and programming
5. Critical thinking and analysis
6. Complex problem-solving
7. Leadership and social influence
8. Emotional intelligence
9. Reasoning, problem-solving and ideation
10. Systems analysis and evaluation

Declining

1. Manual dexterity, endurance and precision
2. Memory, verbal, auditory and spatial abilities
3. Management of financial, material resources
4. Technology installation and maintenance
5. Reading, writing, math and active listening
6. Management of personnel
7. Quality control and safety awareness
8. Coordination and time management
9. Visual, auditory and speech abilities
10. Technology use, monitoring and control

Source: Future of Jobs Report 2018, World Economic Forum

Growth Mindset



Source: Transformingeducation.org

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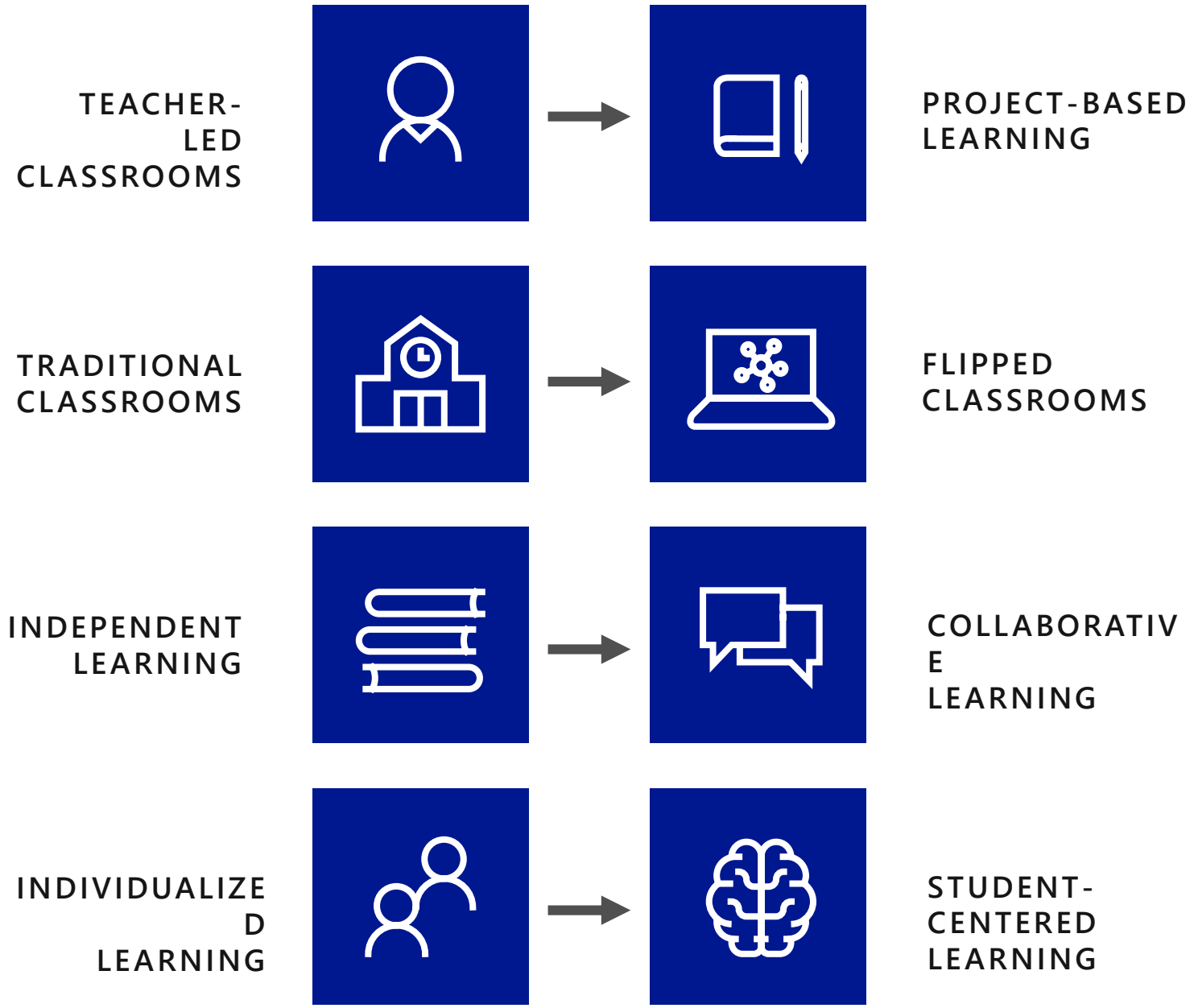
The Learning Shift is Happening Now

TRANSFORMATION FRAMEWORK



Building essential life skills

"To deliver on the promises technology holds, countries will need a convincing strategy to build teachers' capacity. And policy-makers need to become better at building support for this agenda"

—OECD, 2015

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For the System

TRANSFORMATION FRAMEWORK

TRADITIONAL MODEL

- Data stored in multiple places and third-party apps
- Too much low integrity data
- No quality assurance
- High system redundancy
- Multiple complex interfaces and user experiences
- No clear picture of data across all systems

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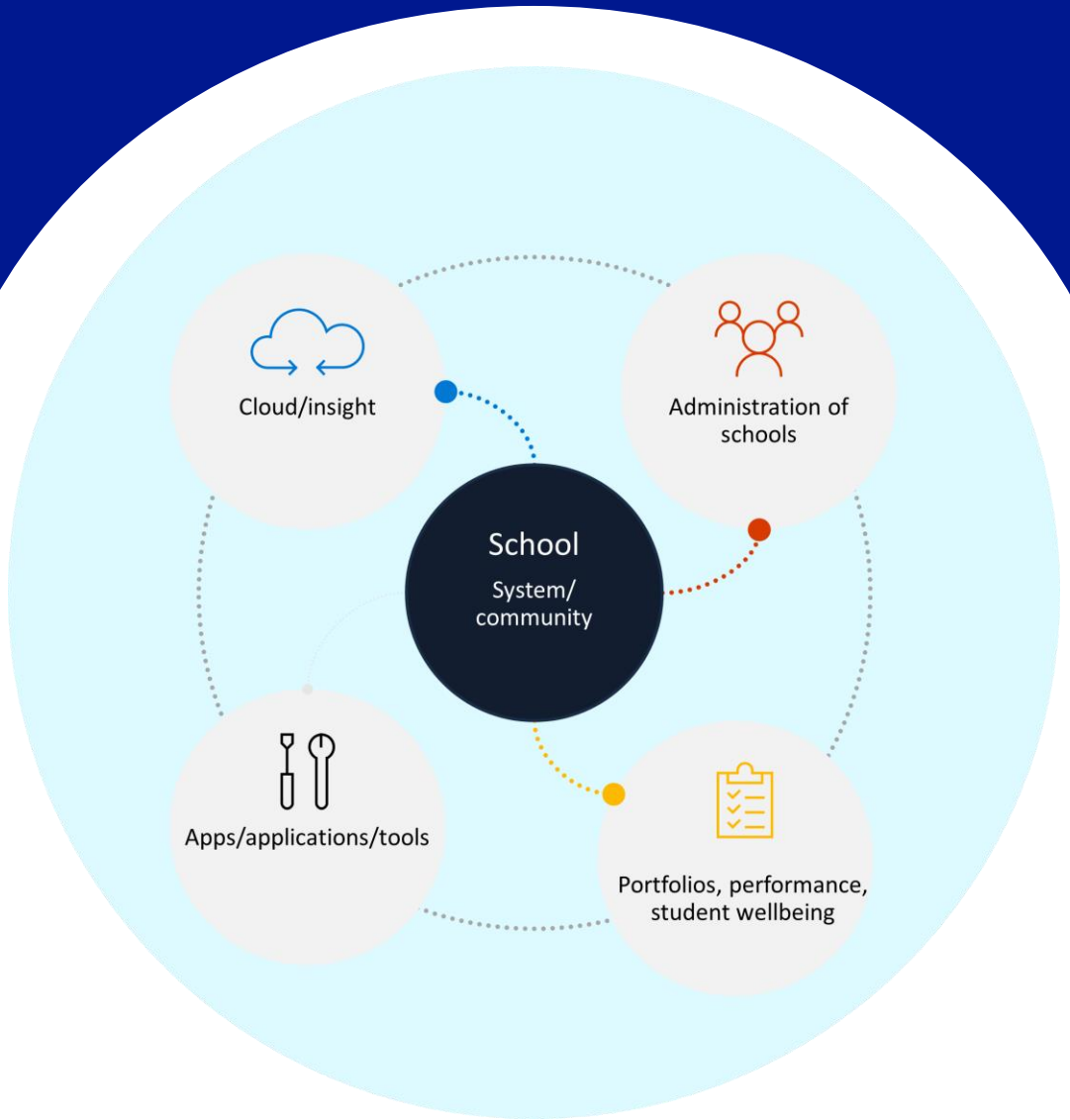
In Schools

TRANSFORMATION FRAMEWORK



NEW MODEL

- Consistent data—high integrity
- Simple, elegant user interfaces
- Ability to understand or measure performance
- Ability to measure efficacy of spend, interventions or resourcing
- Quick and easy forecasting, budgeting, etc.
- Ability to proactively predict or understand important trends across the system

What could transformation look like for you?

Students engaged in deep, measurable learning

Classrooms that inspire learning

Skilled, equipped and successful teachers

Personalized and enjoyable learning

Education unlimited by time or place

Systems that empower efficiency, productivity and performance

EDUCATION

How Does our System Get There?

TRANSFORMATION FRAMEWORK

1 A proven framework to guide and accelerate success

2 **Decades of research** and insights from over **130** different academies and policy makers

3 Real examples of what has worked and what hasn't around the world

Another perspective

Technology transformation in 21 steps

Phase 1

Make a compelling case for challenge

- Step 1: Understand the context of your institution
- Step 2: Build a powerful shared vision
- Step 3: Clarify goals, expectations, and policy priorities
- Step 4: Liaise with parents and community

Phase 2

Research best practice

- Step 5: Explore contemporary learning examples
- Step 6: Embrace new possibilities for 21st century educators
- Step 7: Begin creating 21st century learning environments

Phase 3

Engage and prepare your community

- Step 8: Build a change culture
- Step 9: Implement professional learning strategies
- Step 10: Ensure equity and sustainability (funding strategies)
- Step 11: Build understanding (communication strategies) and policies

Phase 4

Implement your plan

- Step 12: Conduct a readiness assessment
- Step 13: Consider implementation options and project plan
- Step 14: Select devices for teachers, applications, apps., and core tools
- Step 15: Plan your infrastructure for scale
- Step 16: Prepare the budget
- Step 17: Establish critical partnerships
- Step 18: Select student devices
- Step 19: Clarify essential policies for effective use
- Step 20: Deploy devices
- Step 21: Review

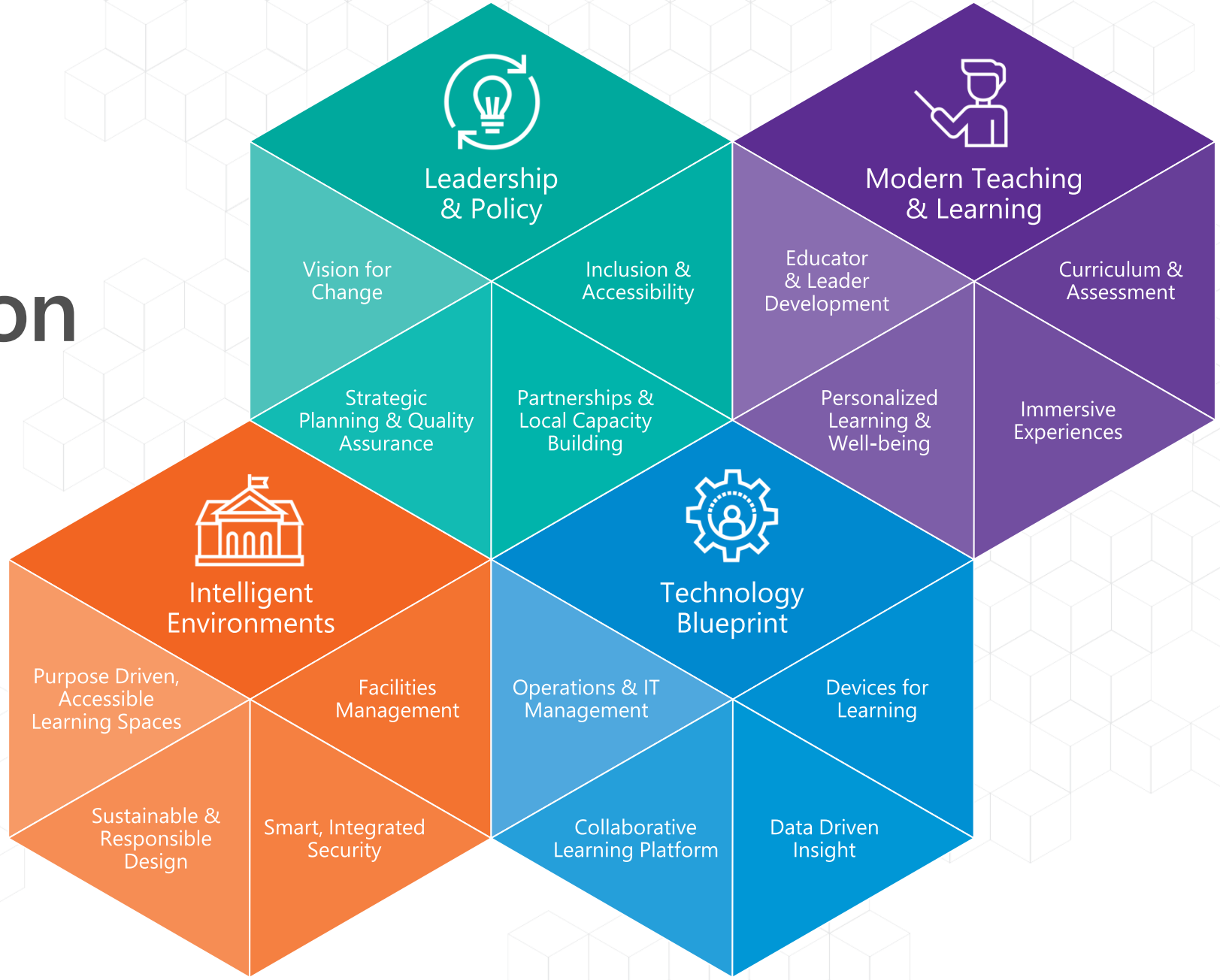
Conclusion.

- Content mastery remains important – still need to understand the depth of the topic
- Recall is less important – AI-enabled tools give fast contextual information access
- Soft skills are critical to be able to use content mastery in a job context
- Entrepreneurship and self-regulation are much more important than in the past.

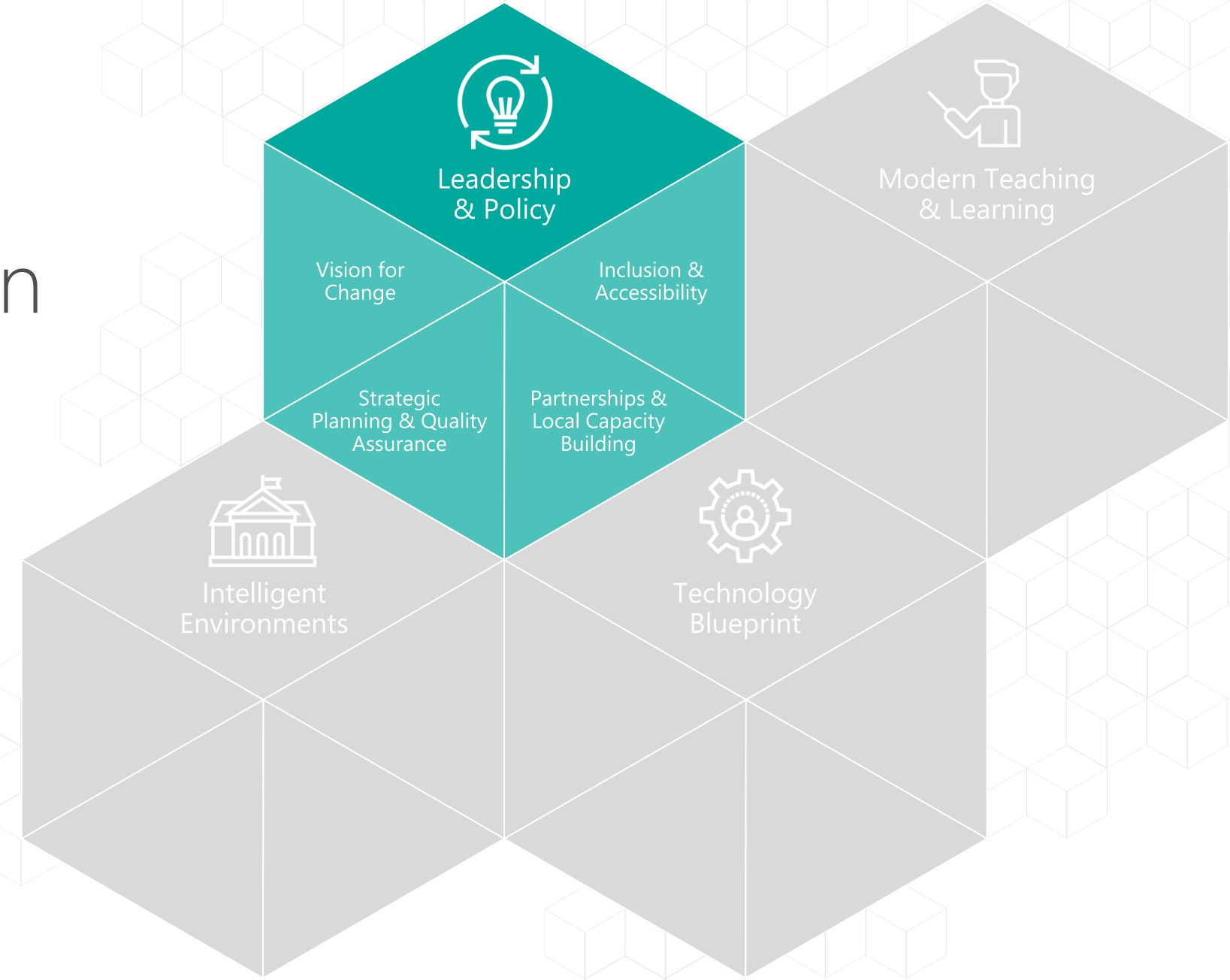
Microsoft

Digital Detox Break

Education Transformation Framework



Education Transformation Framework



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Leadership & Policy

TRANSFORMATION FRAMEWORK

VISIT SITE

Recommended Technology

Office 365

Power BI

Windows 10

Microsoft Azure

An open culture of learning and exchange across the system, with a collective buy-in of vision and shared goals that motivates leaders and educators to drive change.

What is the actual **difference between leadership and management**?

- Probably more than any other area, leadership and management has a huge amount of study with lots of definitions. There are over **75,000** books on leadership.

- **Leadership** = vision, inspiration, risk and innovation
- **Management** = limit uncertainty, improve systems and consistency

- So basically **leadership** is about **coping with change**, whereas **management is about coping with complexity** [for more, John Kotter of Harvard Business School is the guru on this].

- All this stuff can be hard to remember, so we say that leaders are the ones that **climb the tree**.

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Leadership & Policy

TRANSFORMATION FRAMEWORK

1

Vision for Change

It's about developing a clear, succinct vision to drive change.

By creating a powerful rationale that's shared by leaders and other stakeholders, you can create the momentum for long-term impact.

Education systems with an easily communicated vision, understood and articulated by all, are more successful in achieving their goals.

“The ability to visualize and articulate a possible future state for an organization or company has always been a vital component of successful leadership.”

Harvard Business Review

EDUCATION

Define Successful Transformation

TRANSFORMATION FRAMEWORK

If you had to define success as a system in only three words, what would those words be?

Write these on post-it notes and stick them up on the wall.

EDUCATION

Create a Vision Statement

TRANSFORMATION FRAMEWORK

Use your three success words to inspire your vision statement – that can be easily understood by any stakeholder.

Write down your statement.

EDUCATION

Share your vision statement

TRANSFORMATION FRAMEWORK

3:00
MINUTES

EDUCATION

Check your vision statement

TRANSFORMATION FRAMEWORK

Create a single sentence that can be understood by any stakeholder, to capture your vision.

Organizations that have only one core goal often have the most powerful visions. Simply designing your vision is not enough. It is part of a change cycle, which includes designing a vision, strategic planning, implementation, and reflections on progress. **Technology should support your vision, not define it.**

At Microsoft we know that **technology is the enabler for transformation** not the end-game itself.

EDUCATION

Intro to your transformation journey

TRANSFORMATION FRAMEWORK

EDUCATION

Leadership & Policy

TRANSFORMATION FRAMEWORK

2

Strategic Planning & Quality Assurance

It's about taking a program management approach. Start with an effective plan to achieve multiple workstreams. Include quality assurance metrics and establish a strong governance model.

From day one, quality assurance is vital. Think easily monitored metrics that help leaders assess progress and course correct where needed.

“Fifteen years ago the question of education quality assurance was one only a small number of insiders concerned themselves with, but today it is a major topic of national media and political campaigns.”

ITHAKA S+R

EDUCATION

Strategic Planning & Quality Assurance

TRANSFORMATION FRAMEWORK

Follow the four key steps:

1. Ensure your desired outcomes are created with community and system input, are realistic, and, where possible, within the control of the program.
2. Make sure the strategies you select are flexible, so they can be adapted as needed.
3. Build local buy-in through participatory monitoring and evaluation, to create the capacity to sustain an effective program.
4. Plan for monitoring and evaluation from the outset.

EDUCATION

Strategic Planning & Quality Assurance

TRANSFORMATION FRAMEWORK

What are all the ways by which we measure schools in our system?

Create a list.

5:00

MINUTES

EDUCATION

Strategic Planning & Quality Assurance

TRANSFORMATION FRAMEWORK

From this list, what are the **three most effective indicators of your transformation** for policy decisions? If none appear in your list, suggest an alternative indicator you could measure.

Write it down.

EDUCATION

Leadership & Policy

TRANSFORMATION FRAMEWORK

3

Partnerships & Local Capacity Building

EDUCATION

Leadership & Policy

TRANSFORMATION FRAMEWORK

3

Partnerships & Local Capacity Building

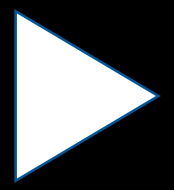
It's about partnering with public and private organizations in a long-term strategy. Partners can help build capacity, whether through digitizing administration and management or upgrading staff skills.

Effective change processes require a coalition of partners with complementary competencies and knowledge.

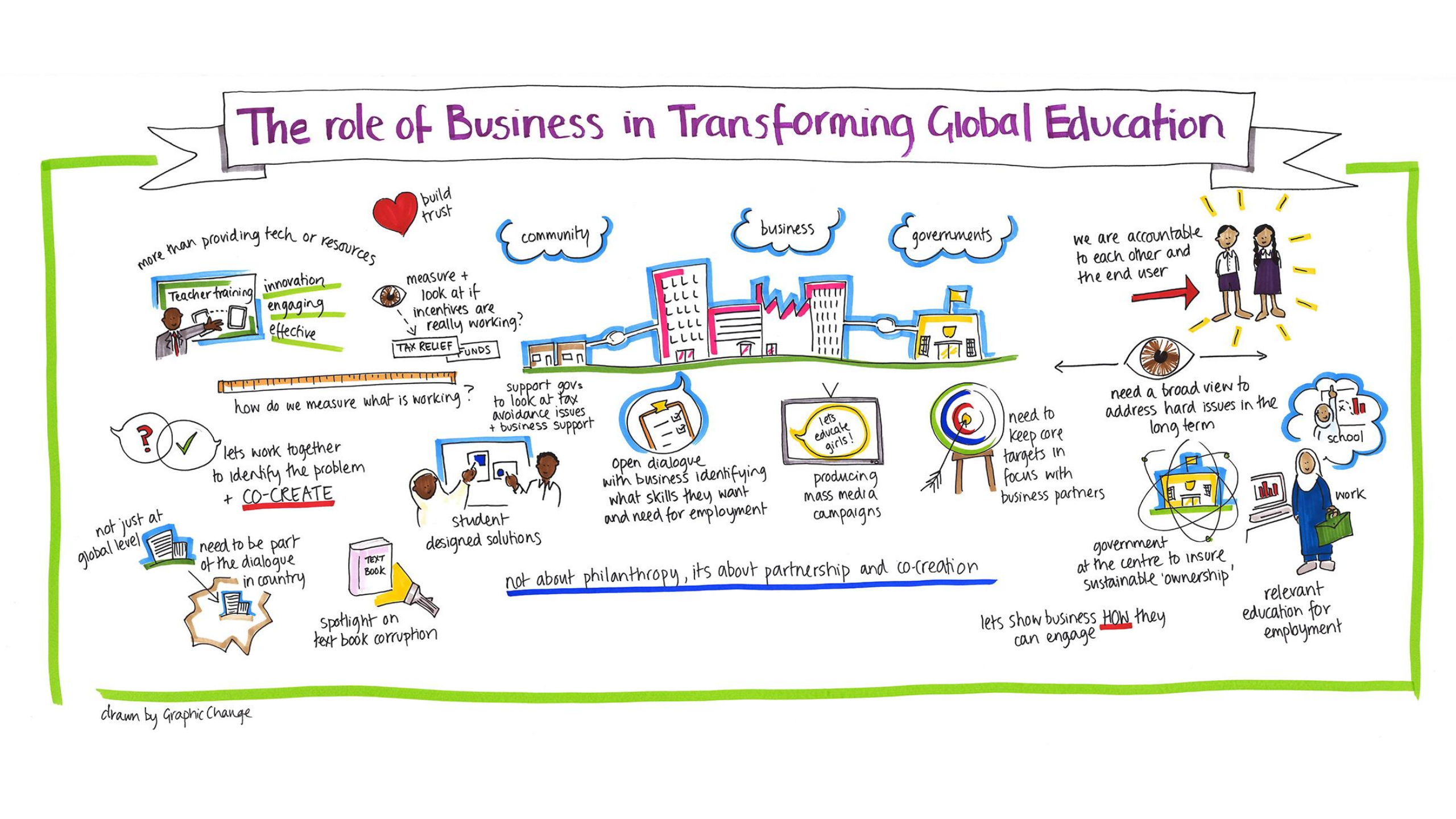
"When a Public-Private Partnership (PPP) is implemented correctly, it can increase efficiency and choice and expand access to education services, particularly for households that tend to be poorly served by traditional delivery methods. PPPs also allow governments to take advantage of the specialized skills offered by certain private organizations and to overcome operating restrictions such as inflexible salary scales and work rules that may prevail in the public sector."

THE WORLD BANK


IF YOU WANT TO GO FAST, GO ALONE.
IF YOU WANT TO GO FAR, GO TOGETHER.

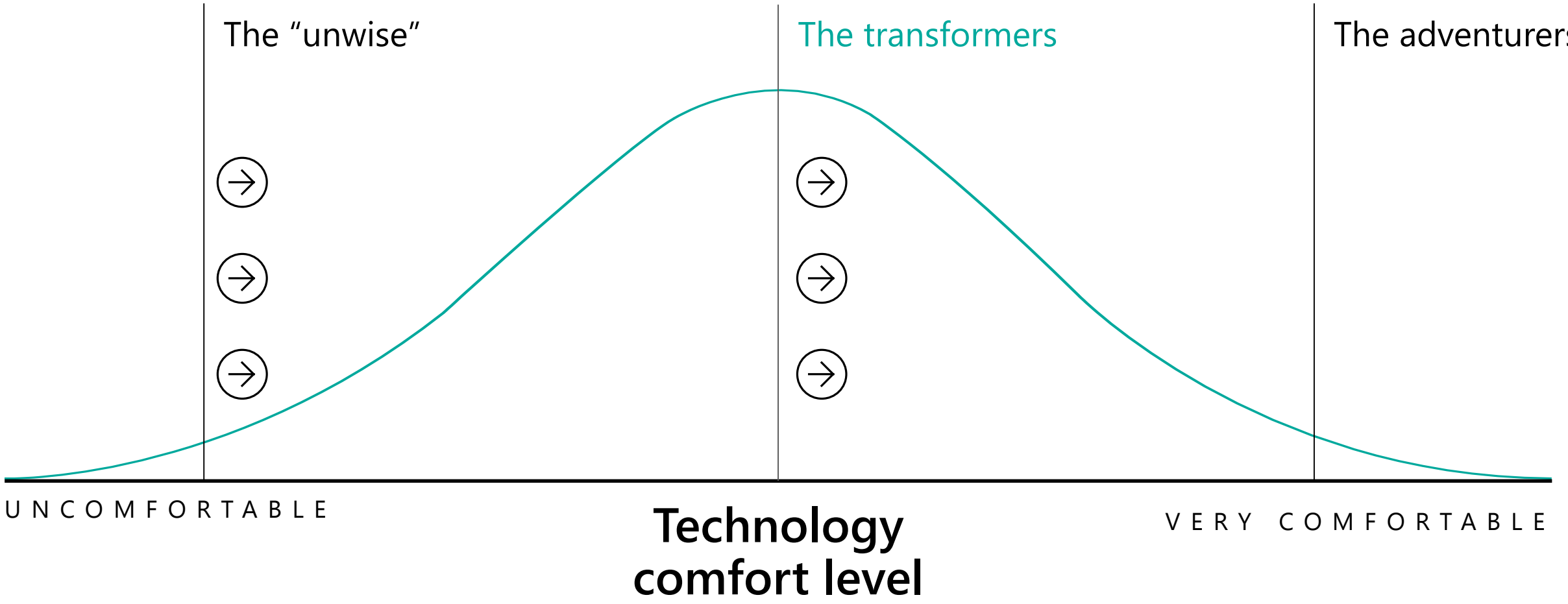


The role of Business in Transforming Global Education



drawn by Graphic Change

Centers of Excellence to drive change



EDUCATION

Know your Centers of Excellence

TRANSFORMATION FRAMEWORK

What are your current Centers of Excellence in the country? What are they doing that makes them the best?

Create a list.

EDUCATION

Leadership & Policy

TRANSFORMATION FRAMEWORK

Inclusion & Accessibility

It's about ensuring students can access learning irrespective of social, physical and economic constraints.

As students are encouraged to take greater responsibility for their learning and develop technology skills, schools have a responsibility to provide accessible technology that can meet the needs of all learners.

EDUCATION

Amplifying Human Capability through Artificial Intelligence

TRANSFORMATION FRAMEWORK

Children with disabilities make up the world's largest and most disadvantaged minority in terms of education. When this is combined with students who are remote, unwell or otherwise homebound, school accessibility can look sorely lacking.

AI can empower people with disabilities with tools that support independence and productivity, as technology rapidly changes the way we live, learn, and work.

Microsoft Direct Spotlight | Accessibility at Scale

“Building inclusive classrooms, and an overall approach to creating an accessible learning environment, starts with understanding the diverse needs your students may have – not all of which are apparent or obvious.”

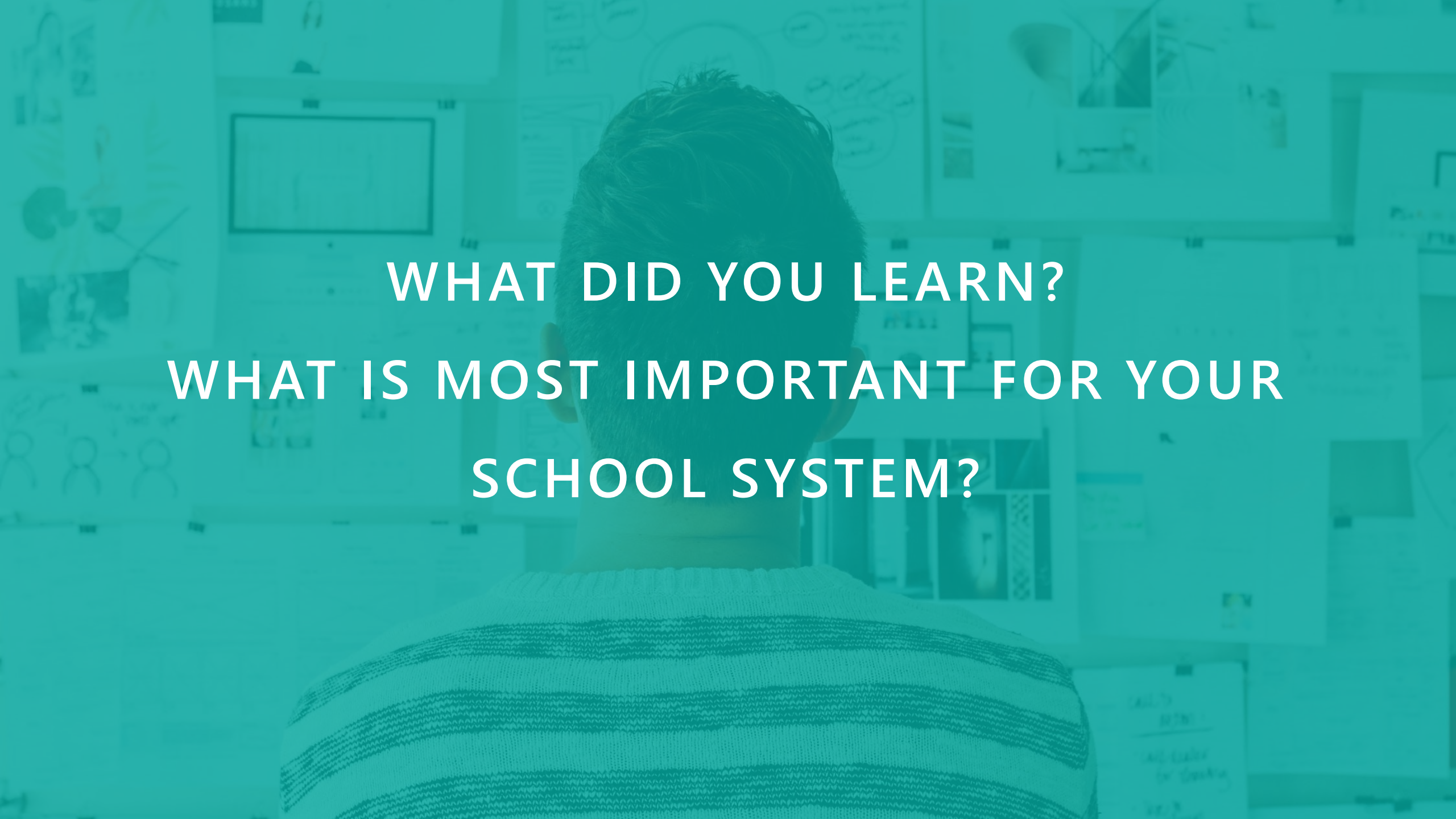
Blackboard

EDUCATION

Leadership & Policy

TRANSFORMATION FRAMEWORK

Complete your Transformation Journey in the first three boxes for Leadership and Policy.



WHAT DID YOU LEARN?

WHAT IS MOST IMPORTANT FOR YOUR SCHOOL SYSTEM?

Engaging every learner in a diverse classroom

With daily challenges—and limited resources—educators need to be confident they are able to optimize learning for a diverse population, as well as meet professional goals and standards.

73%

of teachers report working in classrooms with student reading levels that span four or more grade levels

52%

of teachers in the US have English as a second language learners in their classrooms

72%

of classrooms have special education students

Up to **50%**

of instructional time can be lost to managing students' needs, including assistive technology

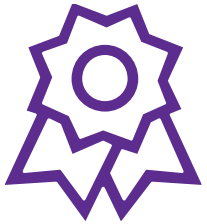
Source: *Primary Sources Third Edition*, Scholastic, 2014.

Building a foundation for future success

Inclusive education tools give more students personalized access to their curriculum, optimize teacher time, and improve learning outcomes.

Students grow their potential and gain independence

Teachers are more empowered to engage every learner



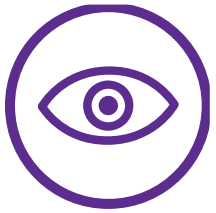
Schools build reputations as positive places that promote equity and inclusion

Promoting independent learning

Accessible technologies help students with disabilities unlock their full potential by addressing a diversity of needs:

Learning

- Dyslexia
- Dysgraphia
- Dyscalculia



Visual

- Low vision
- Blind
- Colorblind

Hearing

- Deaf
- Hard of Hearing

Mobility

- Cerebral Palsy
- Muscle Dystrophy
- Amputation

Neurodiversity

- Autism
- ADD/ADHA
- Seizure

Mental Health

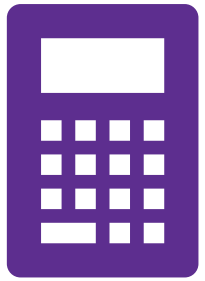
- Anxiety
- Depression
- OCD

See Microsoft Accessibility features for every classroom: http://aka.ms/AccessibilitySway

Inclusive Classroom

Reading

Writing

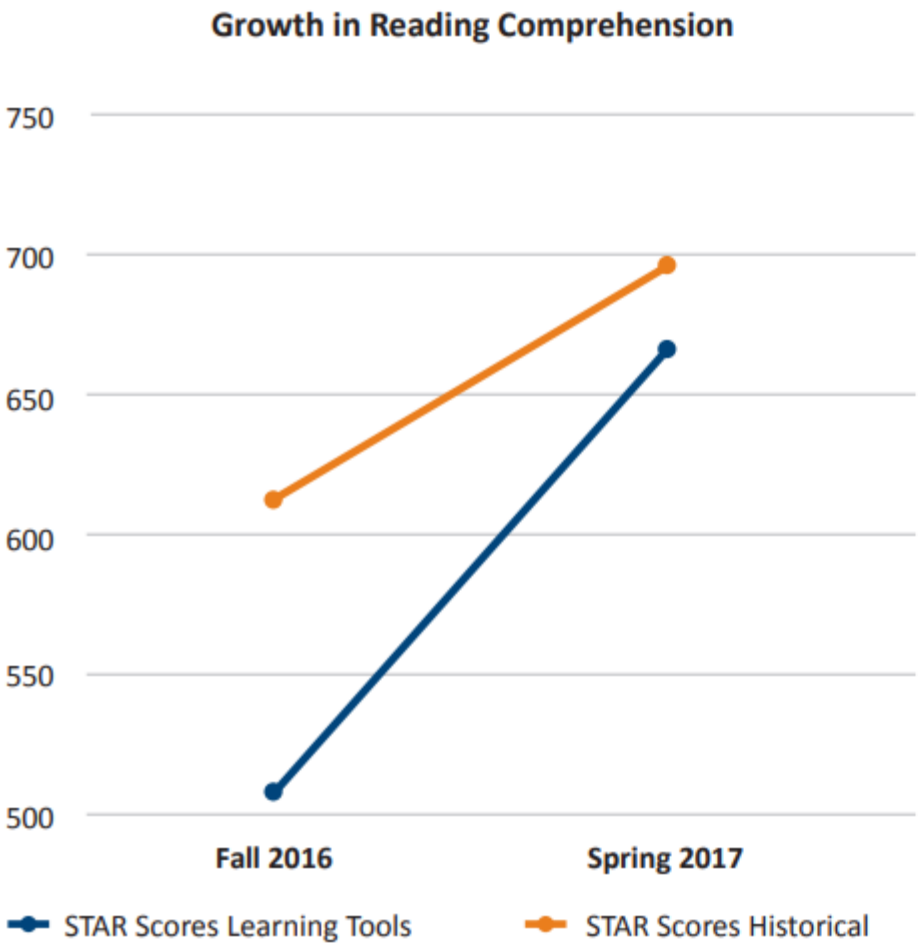


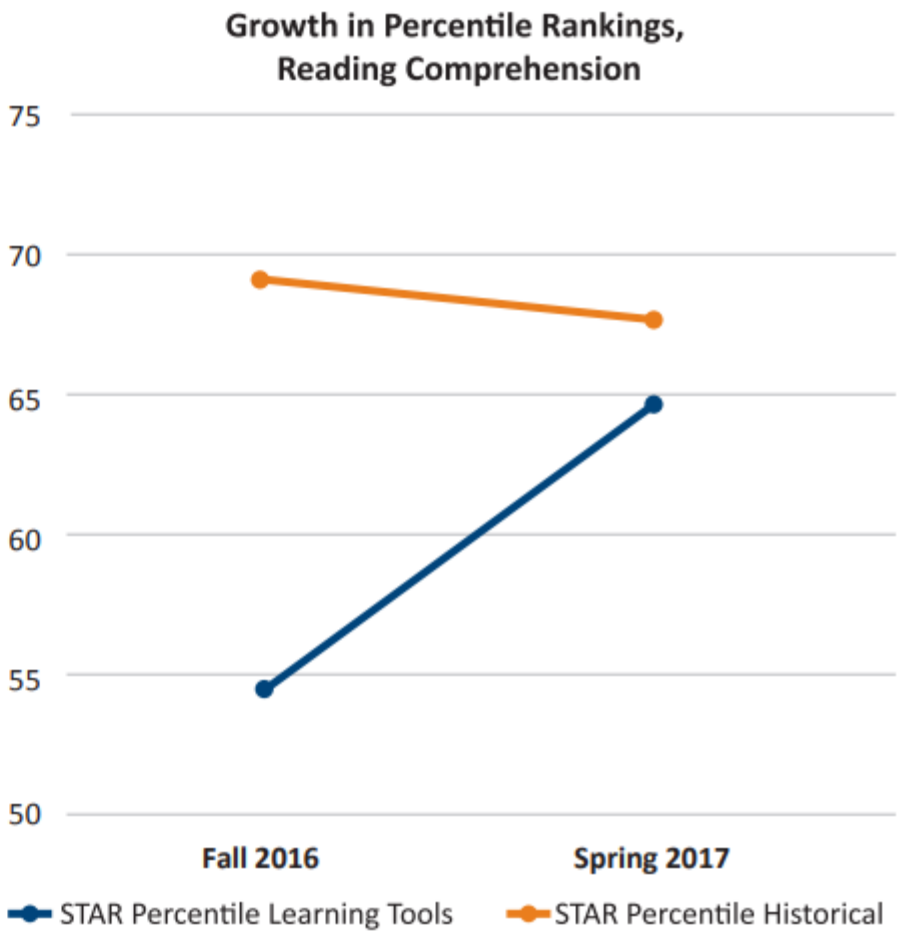
Math

Communication

Learning tools

10 Point Improvement in 4th grade Comprehension Scores





New Updates! http://aka.ms/LearningToolsJanuary2019

http://aka.ms/MECMadebyDyslexia

Microsoft Learning Tools Availability

Read Aloud & word/line highlighting	OneNote Desktop	OneNote Online	OneNote App	OneNote iOS	OneNote Mac	Word Online	Word Desktop	Word Mac	Word iPad	Outlook Web	Outlook Desktop	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	Office Lens	Edge browser
Spacing and Font Size	OneNote Desktop	OneNote Online	OneNote App	OneNote iOS	OneNote Mac	Word Online	Word Desktop	Word Mac	Word Ipad	Outlook Web	Outlook Desktop	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	Office Lens	Edge browser
Page Colors	OneNote Desktop	OneNote Online	OneNote App	OneNote iOS	OneNote Mac	Word Online	Word Desktop	Word Mac	Word iPad	Outlook Web	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	Office Lens	Edge Browser	
Syllables	OneNote Desktop	OneNote Online	OneNote App	OneNote iOS	OneNote Mac	Word Online	Word Desktop	Outlook Web	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	Edge Browser				
Line Focus	OneNote Desktop	OneNote Online	OneNote App	OneNote iOS	OneNote Mac	Word Online	Word Desktop	Outlook Web	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	Edge Browser				
Parts of Speech	OneNote Desktop	OneNote Online	OneNote App	OneNote iOS	OneNote Mac	Word Online	Outlook Web	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android	Edge Browser					
Translation	OneNote Online	OneNote App	OneNote iOS	OneNote Mac	Word Online	Outlook Web	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android							
Picture Dictionary	OneNote Online	OneNote App	OneNote iOS	OneNote Mac	Word Online	Outlook Web	Teams	Flipgrid	Flipgrid iOS	Flipgrid Android							
Dictation	OneNote Desktop	OneNote App	OneNote Online	Word Online	Word Desktop	Outlook Desktop	PPT Desktop	Windows 10									
Math & Equations	OneNote Online	OneNote App	OneNote iOS	OneNote Mac	Word Online	Word Desktop	PPT Desktop										

http://aka.ms/LearningToolsFlyer

School survey

Online demo

https://education.microsoft.com/GetTrained/schooltransformationsurvey

See also:

https://educationblog.microsoft.com/2017/02/school-transformation-survey

EDUCATION

Modern Teaching & Learning

TRANSFORMATION FRAMEWORK

VISIT SITE

Recommended Technology

Office 365

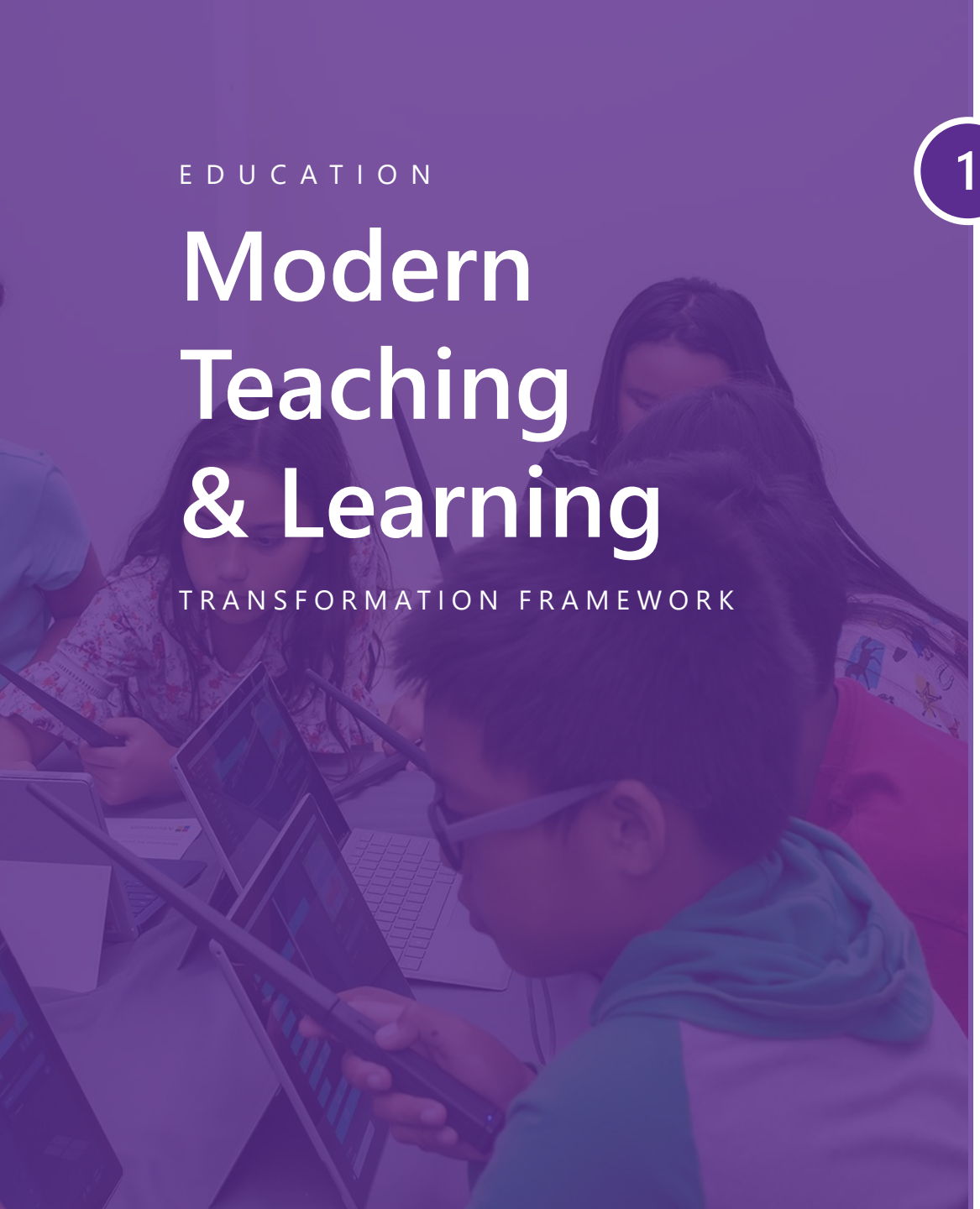
Microsoft Teams

Windows 10

MINECRAFT

Azure

A new and immersive way to explore curriculum, nurturing a growth mindset in students, while emphasizing future ready skills to help them thrive in jobs not yet invented.



EDUCATION

Modern Teaching & Learning

TRANSFORMATION FRAMEWORK

1 Educator & Leader Development

Professional learning that's more impactful than traditional training.

By participating in an active community of practice that shares ideas, successful strategies and content, educators and leaders motivate each other to grow and adapt.

The most successful strategies for creating sustainable change in teaching practices knit together online professional development with local and global communities of practice.

EDUCATION

Educator & Leader Development

TRANSFORMATION FRAMEWORK

High-impact approaches to professional learning

Teacher mentoring and class observation

Lesson and grade groups to plan and solve problems

Clear, actionable feedback on how to improve

Subject-specific pedagogy and use of technology

Diagnose and understand learning needs and challenges

Research groups to trial new approaches

EDUCATION

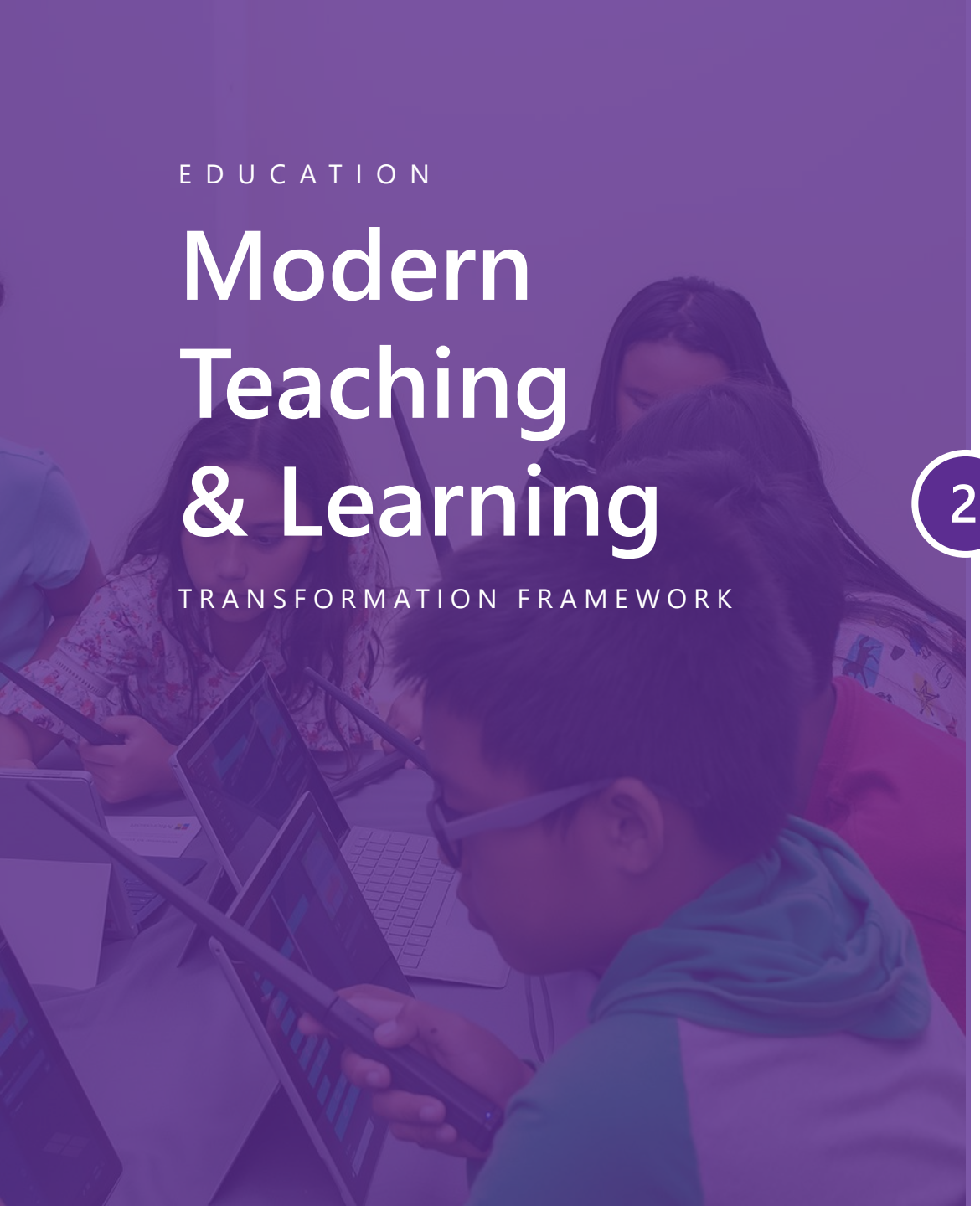
Teacher & Leader Professional Development

TRANSFORMATION FRAMEWORK

What new skills do leaders and teachers need to develop in your school system?

Write it down.

3:00
MINUTES



EDUCATION

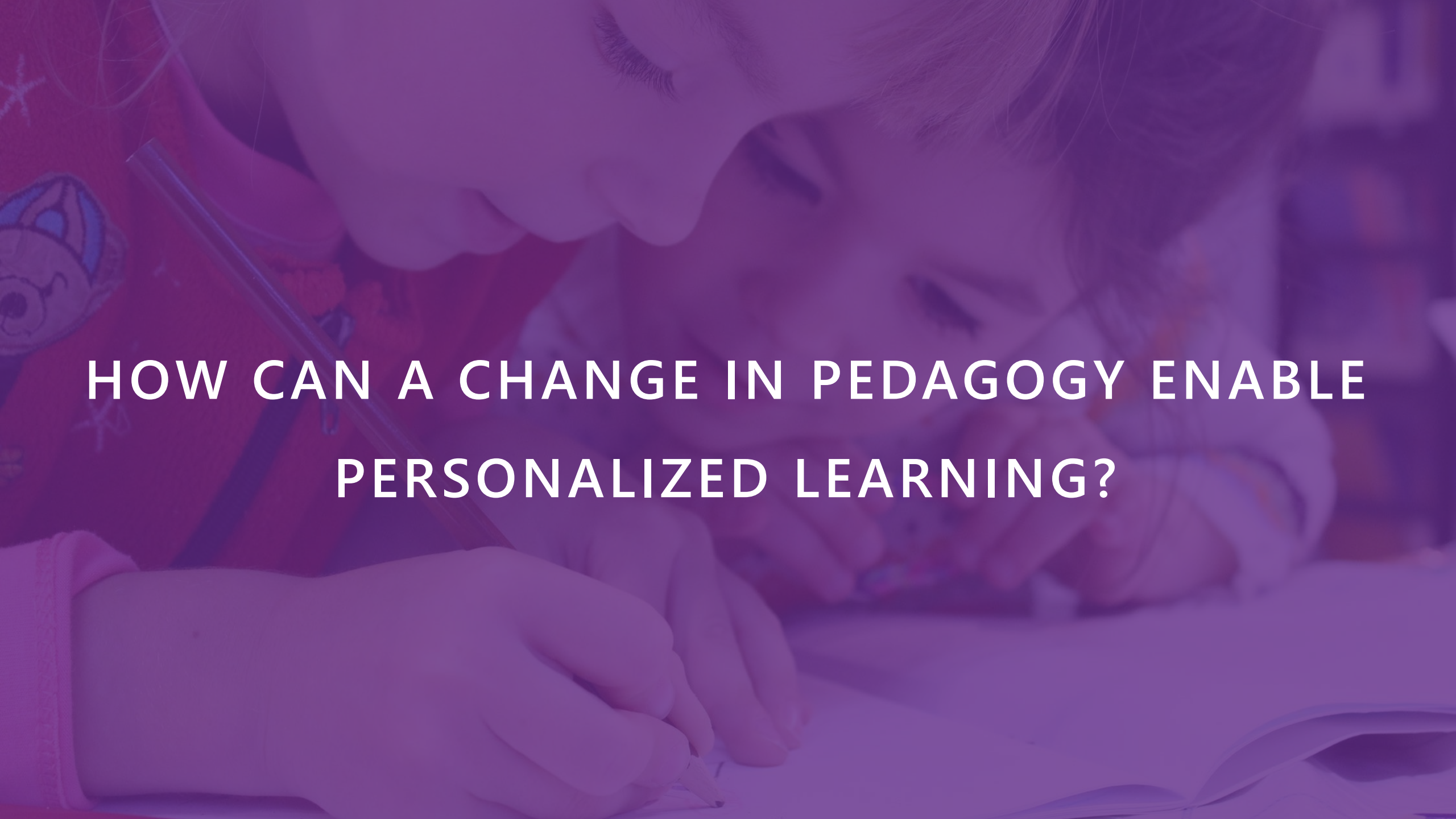
Modern Teaching & Learning

TRANSFORMATION FRAMEWORK

2

Personalized Learning & Well-being

It’s about new approaches and tools. These help educators unlock students’ sense of purpose and inspire them to achieve more. At the same time, students develop important 21st century competencies.



HOW CAN A CHANGE IN PEDAGOGY ENABLE PERSONALIZED LEARNING?

EDUCATION

Personalized Learning & Well-being

TRANSFORMATION FRAMEWORK

The key to a transformed learning system is understanding students' strengths and weaknesses—whether academic, emotional or social, to offer learning opportunities that resonate with them.

Microsoft Success Story | Ribblesdale High School

EDUCATION

Modern Teaching & Learning

TRANSFORMATION FRAMEWORK

3

Immersive Experiences

Increase student understanding and retention in all subjects.

What if your students could go virtually into a volcano or walk around a living cell in 3D?

Or even build their own medieval village or sub-Saharan ecosystem?

EDUCATION

Opportunities of Immersive Experiences

TRANSFORMATION FRAMEWORK

Students in immersive environments can:

- Visualize complex relationships and abstract concepts.
- Experience phenomena not possible in the real world (too dangerous or remote).
- Interact with 3D objects.
- Engage in embodied learning—i.e., interaction of the body with the environment—enhances recall and understanding.
- Test their hypotheses and experience outcomes.

Unlock Future Ready Skills

The Future Ready Solution refers to the broad umbrella of skills, both soft and technical, that learners need to thrive in a digital economy. When speaking with educational leadership we simply ask the question, “How can we help you prepare your students to make them future-ready?

Recommended products:

Microsoft Imagine Academy

Microsoft 365

MINECRAFT EDUCATION EDITION

Microsoft MakeCode

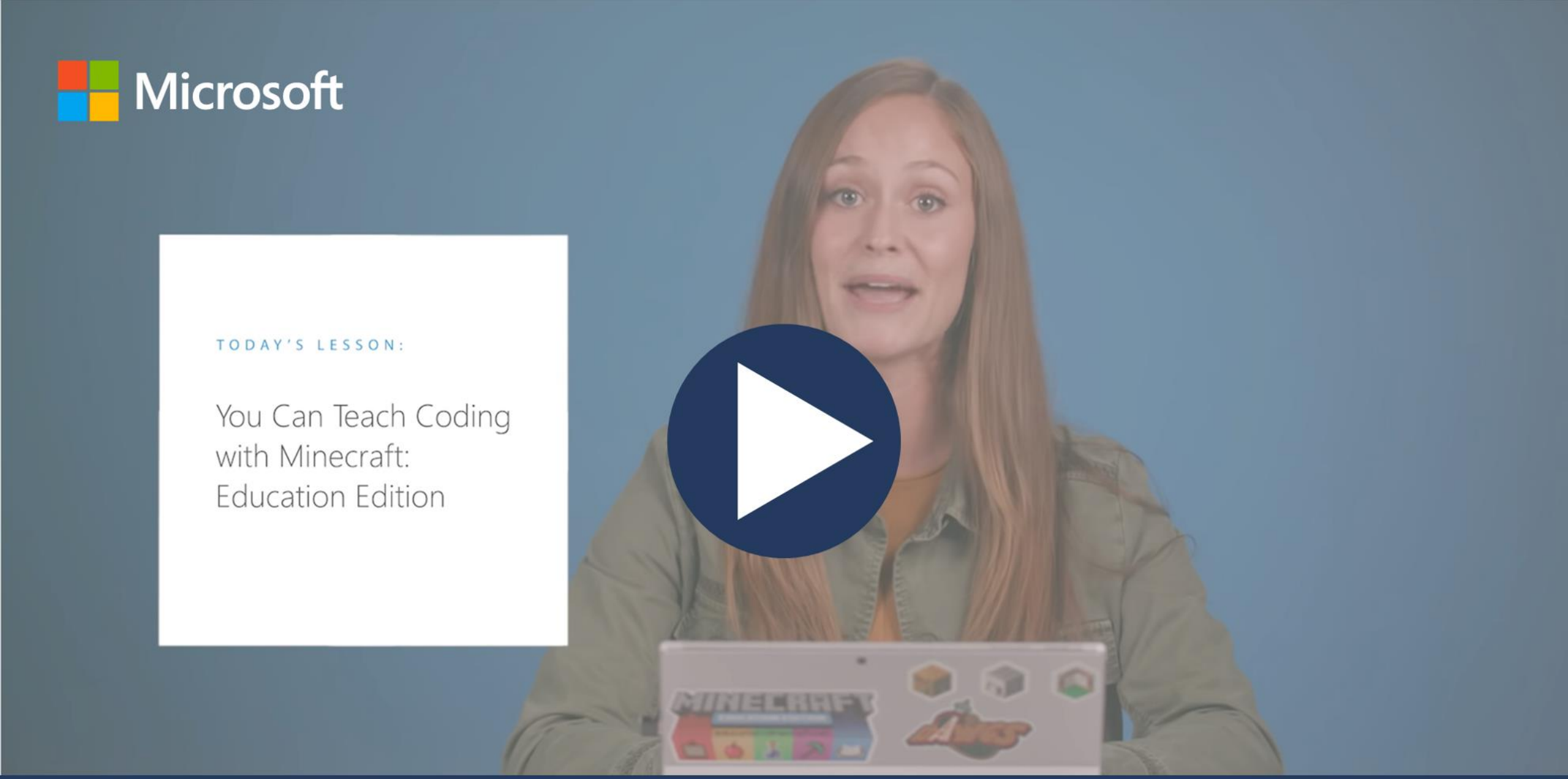
EDUCATION

Failure. Not Failing.

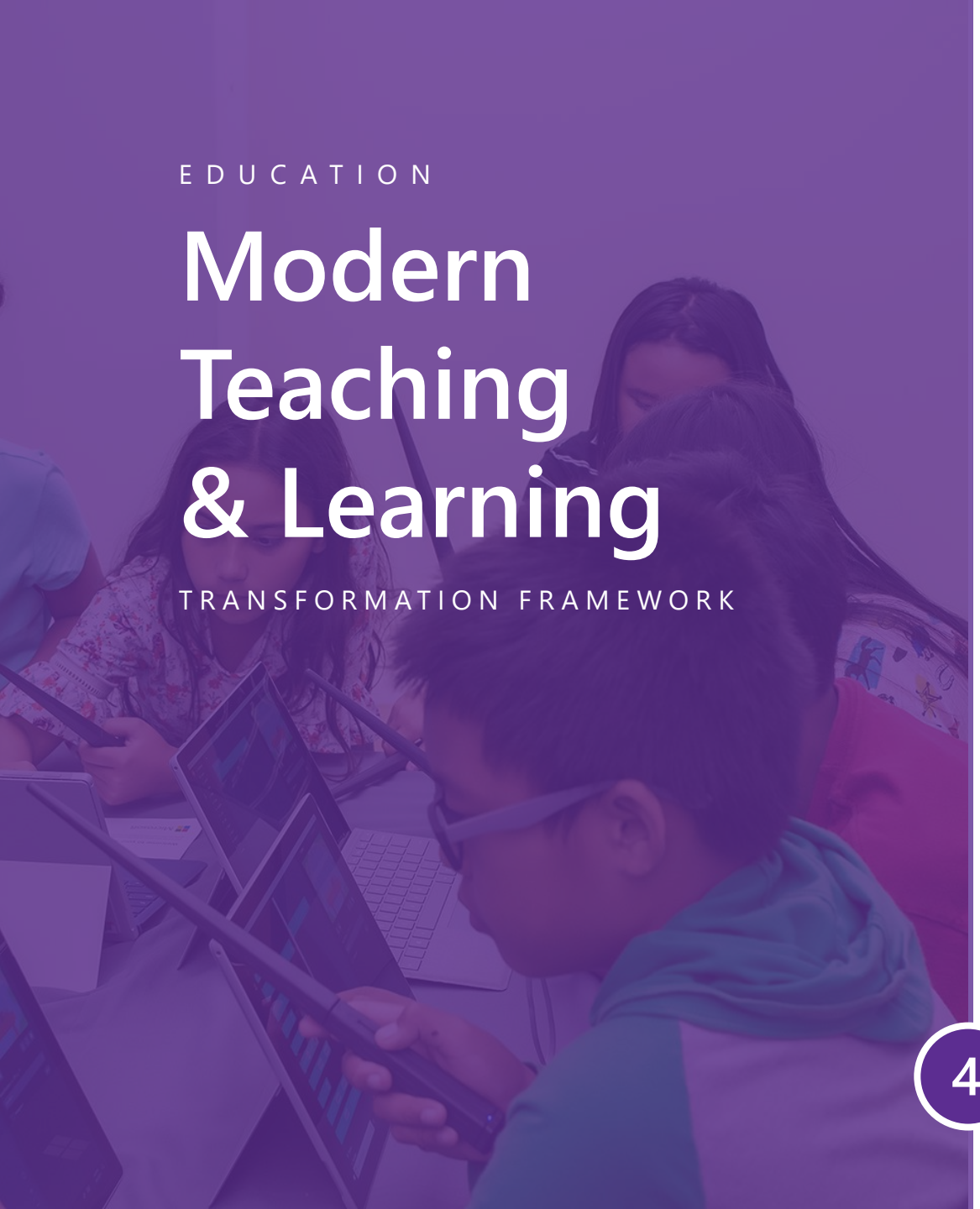
TRANSFORMATION FRAMEWORK

Games like **Minecraft Education Edition** provide platforms where players have every opportunity to experience failure because mistakes can be fixed.

This promotes iterative thinking, and a creative mindset uninhibited by the thought of failing. Failure happens – it is temporary only.



Microsoft Direct Spotlight | Teach Coding with Minecraft Education Edition



EDUCATION

Modern Teaching & Learning

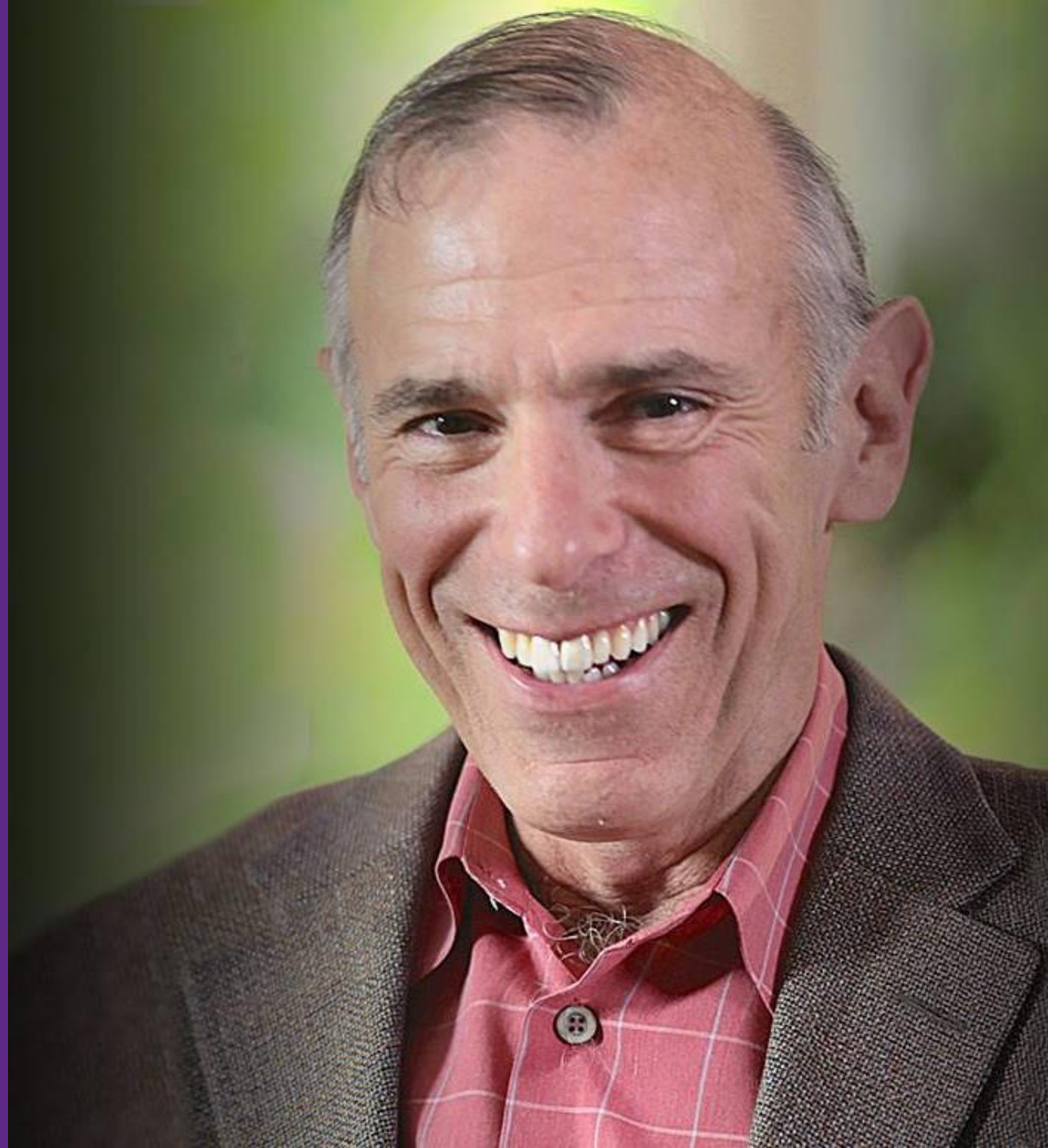
TRANSFORMATION FRAMEWORK

Curriculum & Assessment

New forms of curriculum – whether project-based, personalized or competency driven – require new tools to access, customize and assess progress for each student on desired competencies not content recall.

"The world doesn't care about what you know. What the world cares about is **what you do with what you know**."

- **Tony Wagner**, Author, *Creating Innovators*

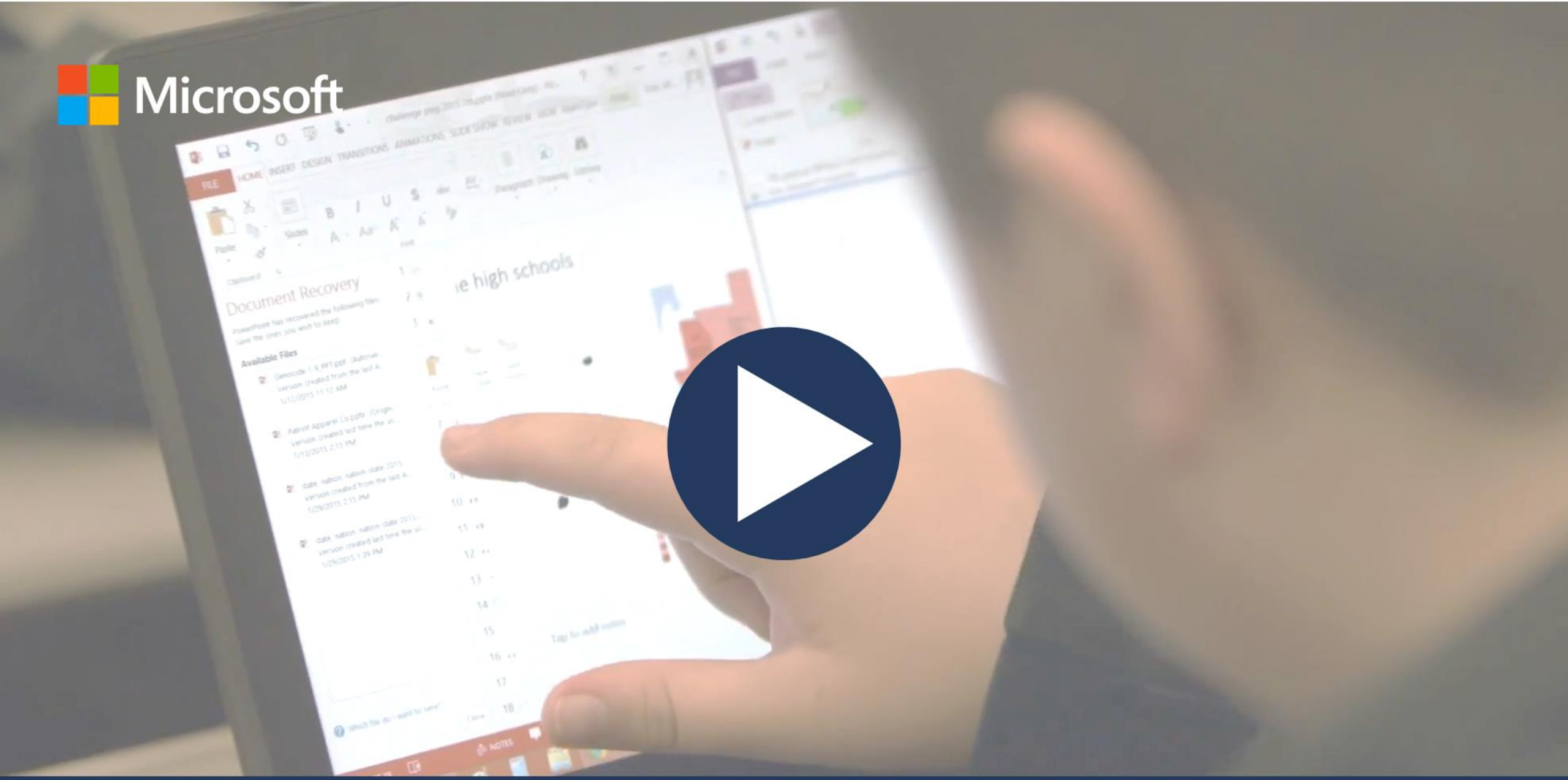


EDUCATION

Curriculum & Assessment

TRANSFORMATION FRAMEWORK

New forms of curriculum—whether project-based, personalized or driven by new competencies— require new tools to access and customize the student experience—and new ways to assess their progress.



Microsoft Success Story | Sammamish High School

EDUCATION

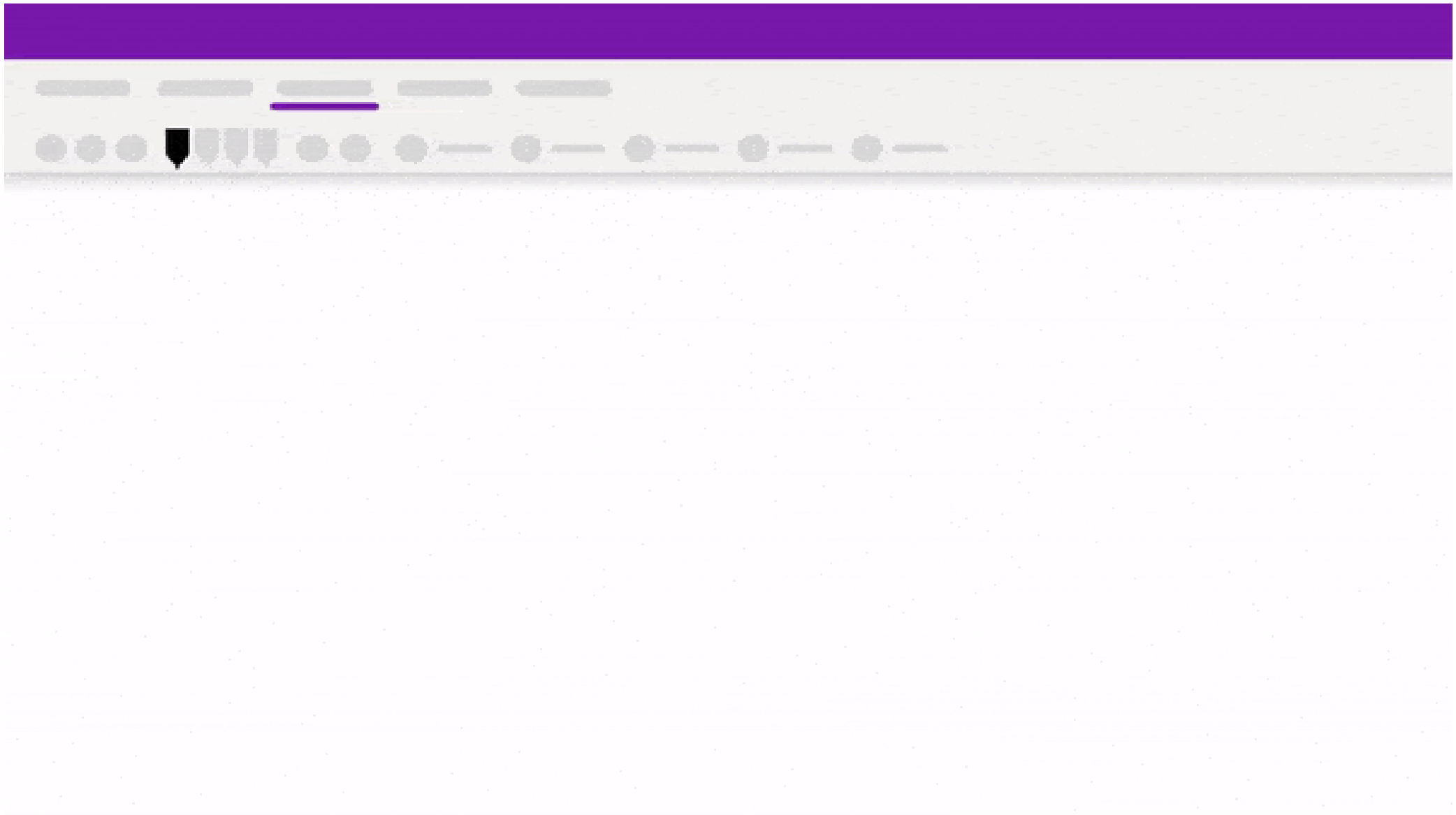
Curriculum & Assessment

TRANSFORMATION FRAMEWORK

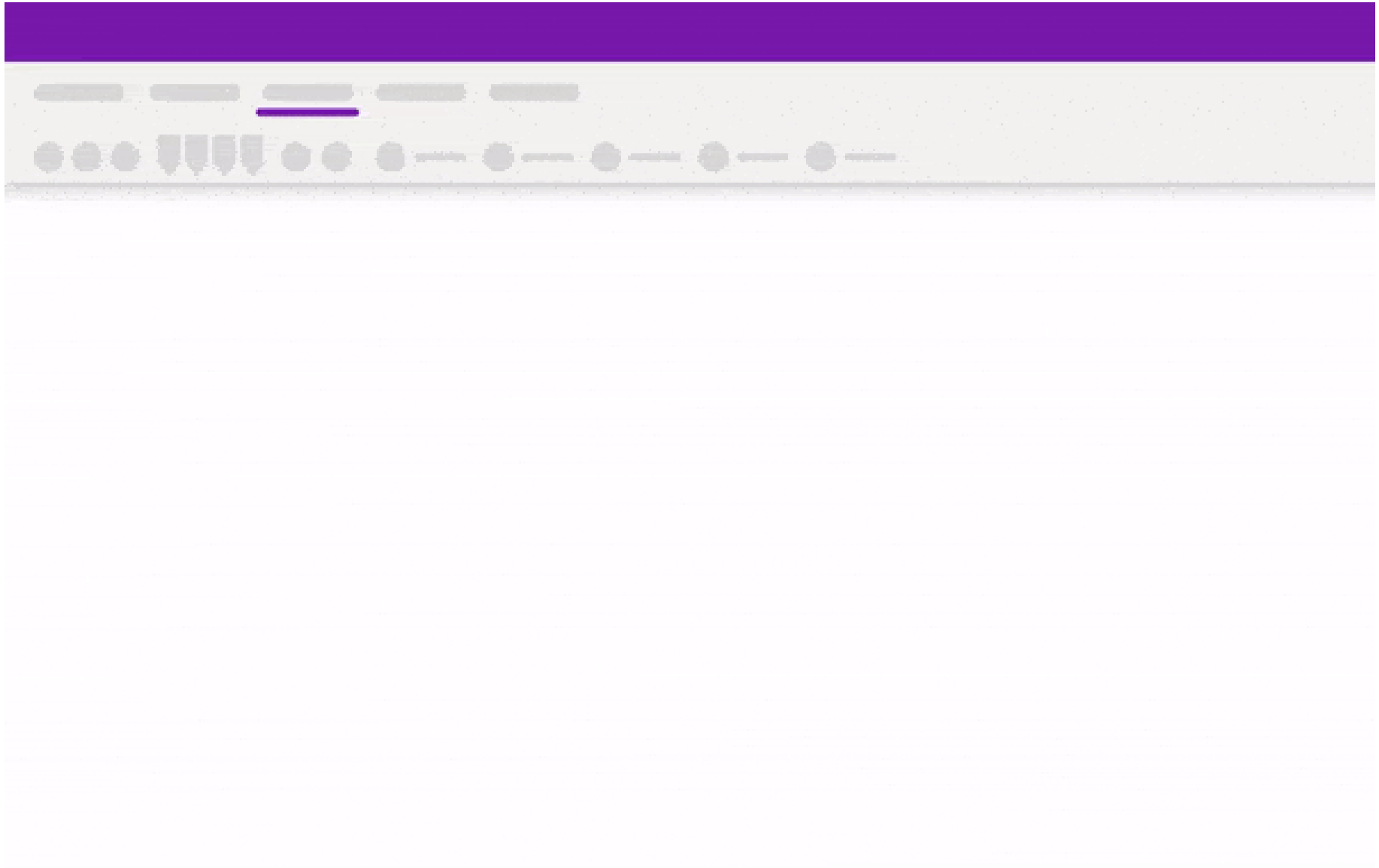
Education apps from top publishers

Microsoft Success Story | Danesfield School

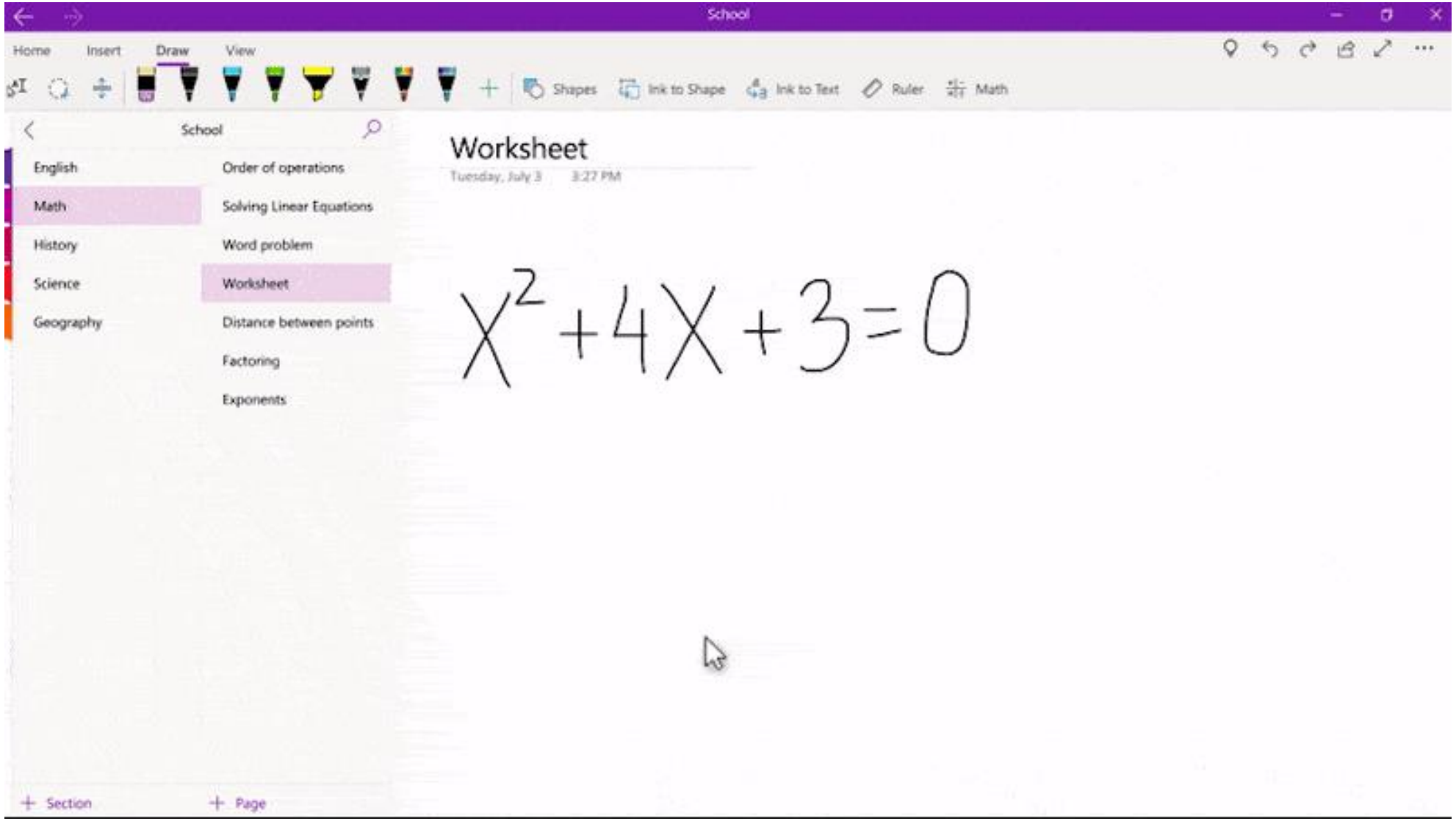
Teaching and assessing math: ink to math or type as text, Text to Math, Math solver



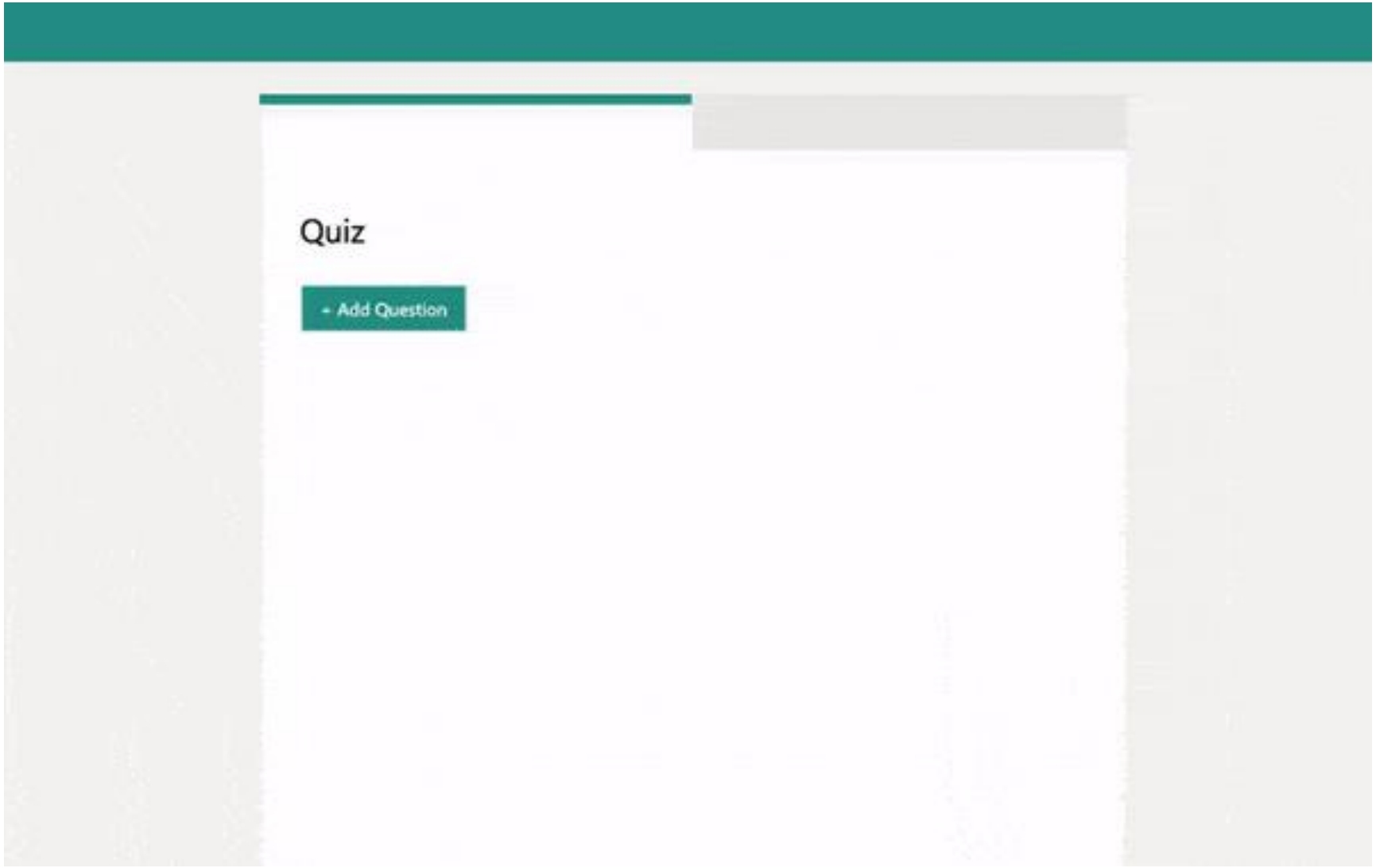
Teaching and assessing math: graph the equation, providing a visual reference



Teaching and assessing math: Immersive Reader enables students to hear math problems read aloud



Teaching and assessing math: Conduct formative assessment. Integrated with Teams!



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Demo

MEC Demo

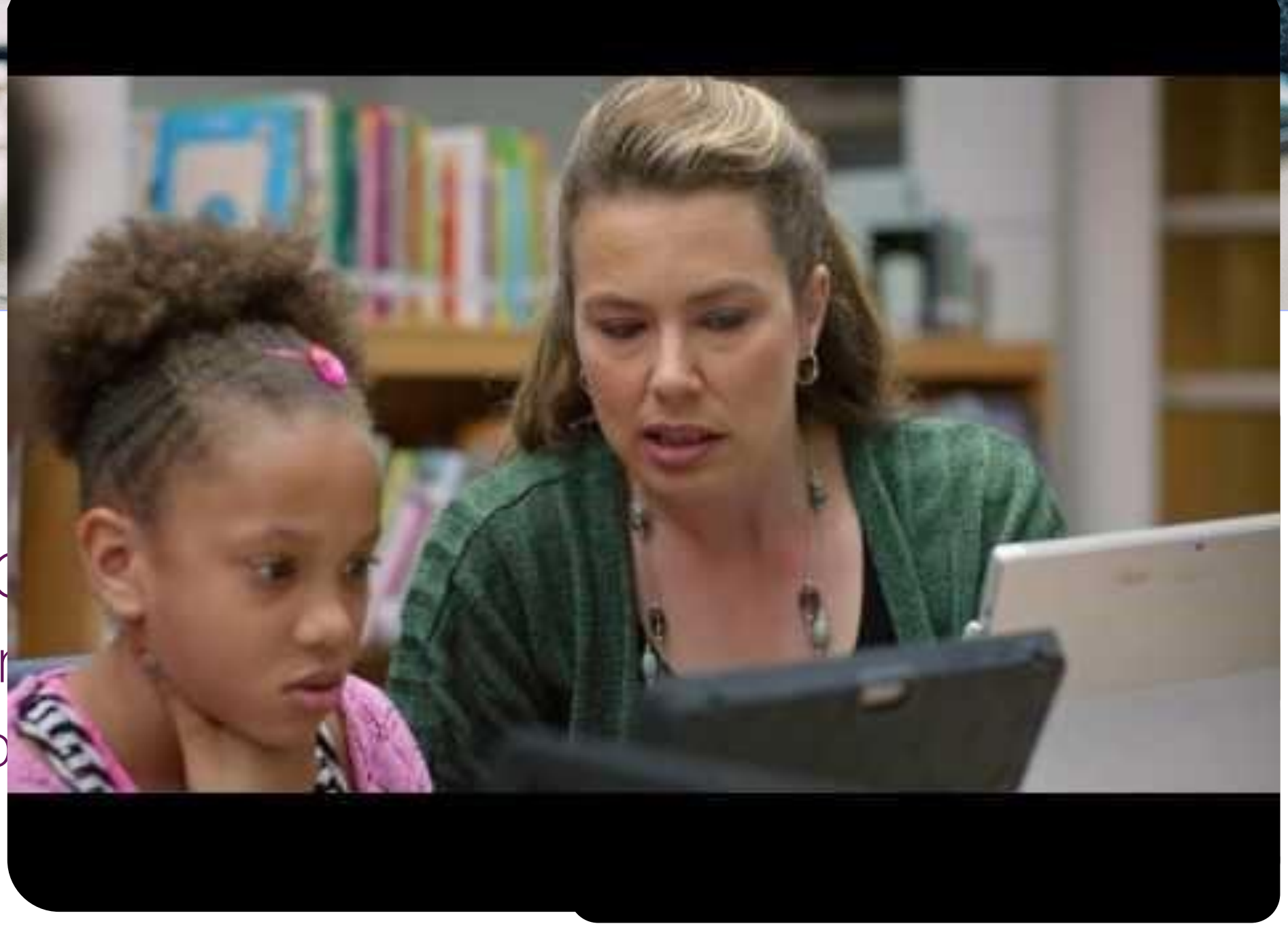
- STEM: https://www.microsoft.com/en-us/education/education-workshop/default.aspx
- The new digital literacy: https://www.microsoft.com/en-us/digitalliteracy/home
- Edx.org trainings: https://www.edx.org/

Explore Our Planet: Connect to Educators & Experts


Infrastructure + motivated teacher + supportive environment = effective use of technology in education
Source: European Commission Survey of ICT in Schools

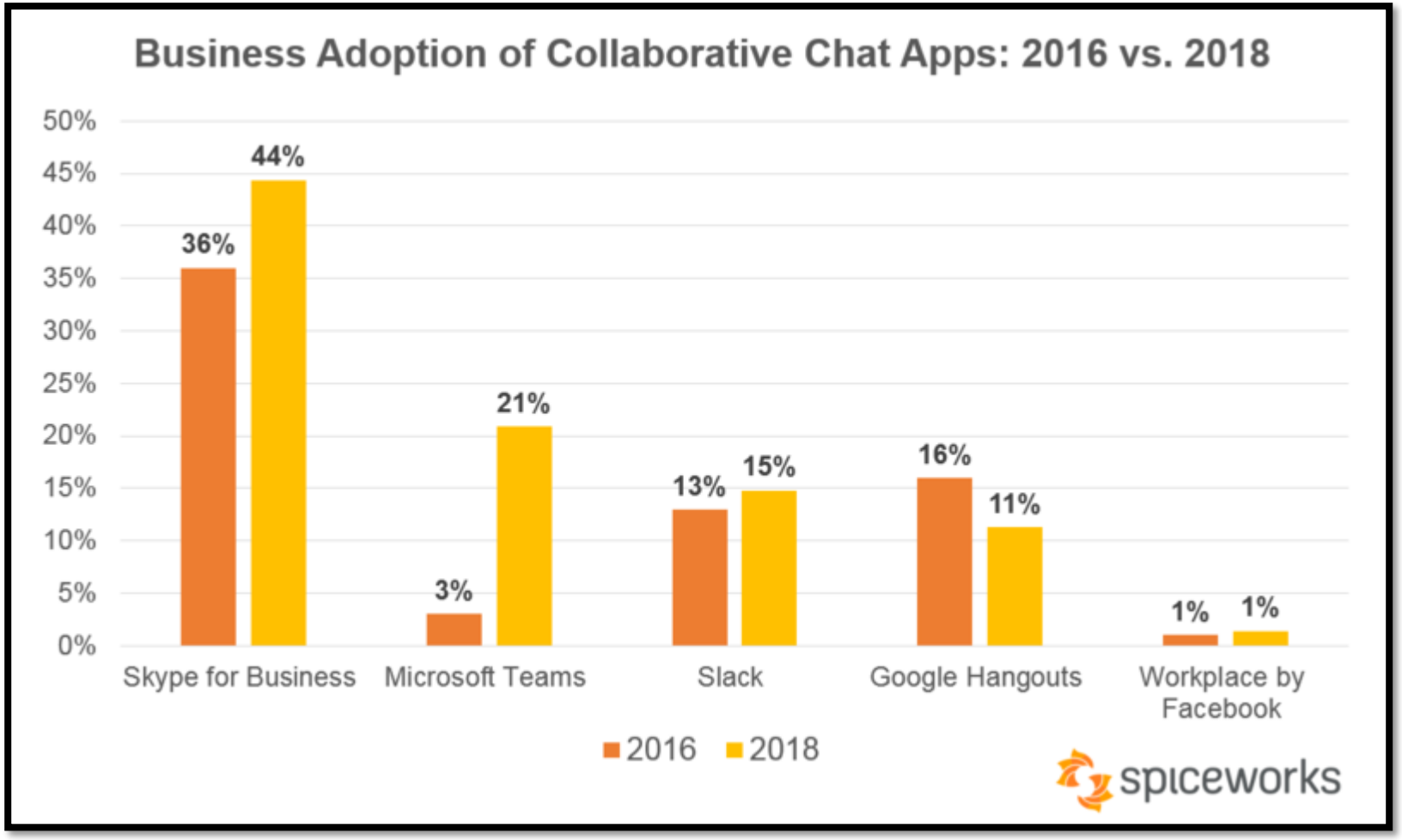

Microsoft Teams

Video: C
experien
Microso



Teams vs…

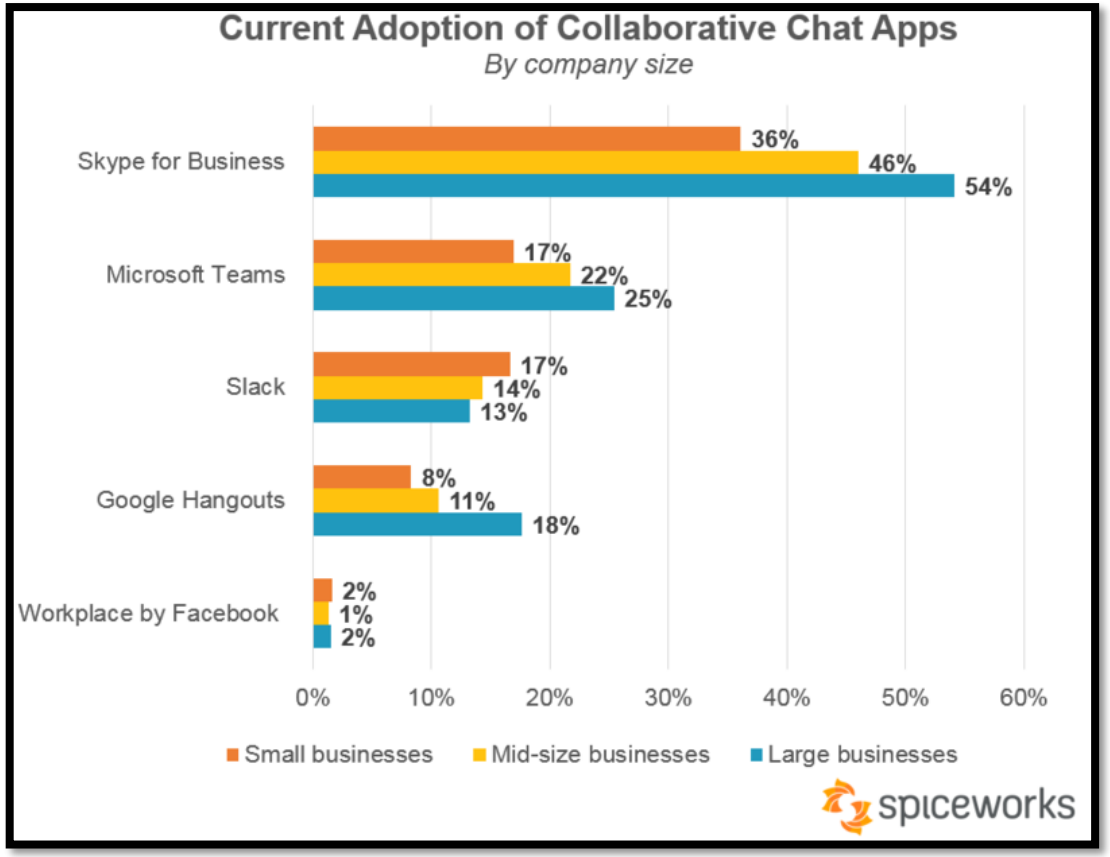
Business Chat Apps in 2018: Top Players and Adoption Plans

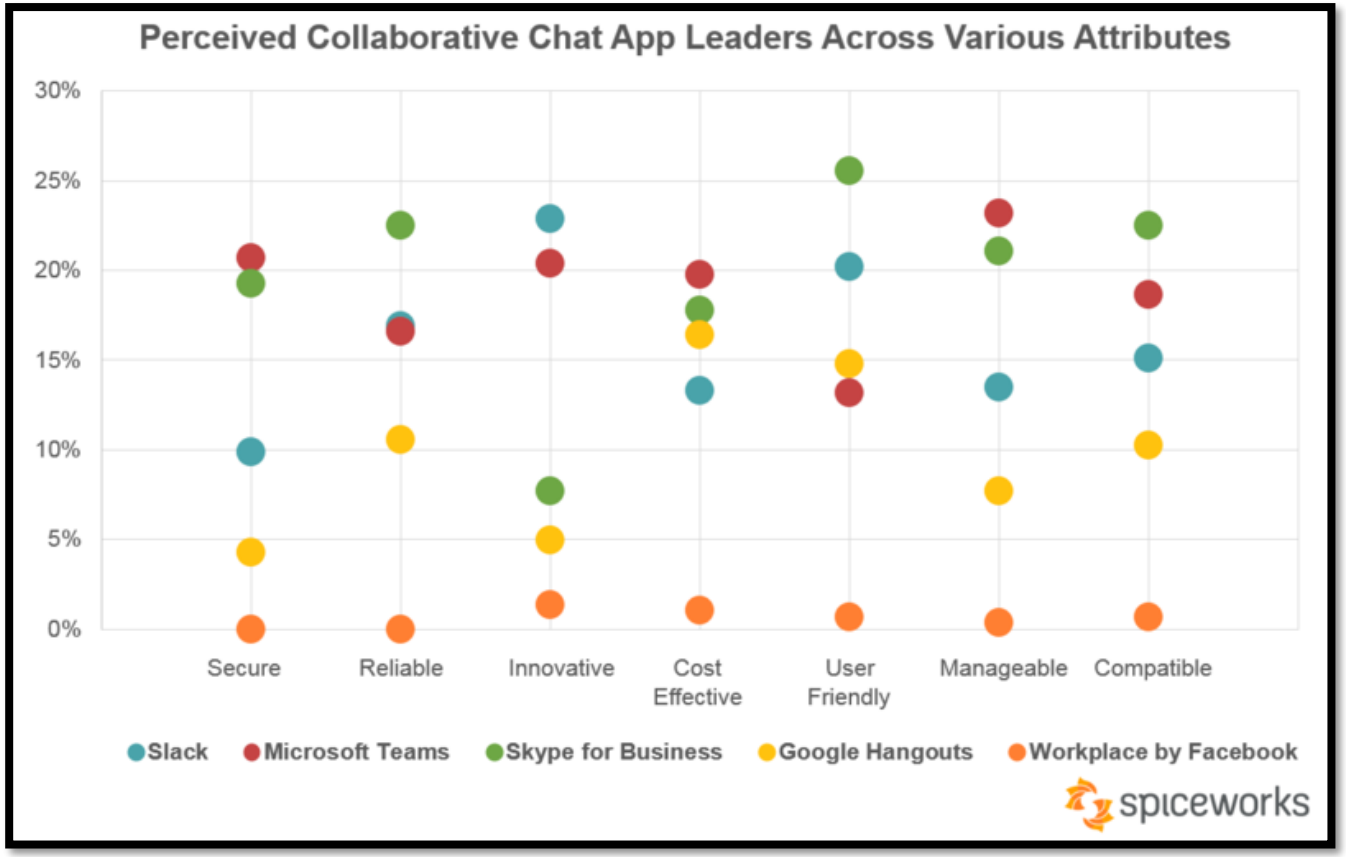


Source: Spiceworks Dec 10, 2018
Surveyed more than 900 IT decision makers in organizations across North America and Europe

Teams vs…

Business Chat Apps in 2018: Top Players and Adoption Plans





Source: Spiceworks Dec 10, 2018
Surveyed more than 900 IT decision makers in organizations across North America and Europe

Teams Demo

- Welcome to the Microsoft Teams Interactive Demo https://teamsdemo.office.com/
- Teams University https://education.microsoft.com/courses-and-resources/resources/microsoft-teams-university
- Microsoft Teams for Education training videos and resources https://support.office.com/en-us/article/microsoft-teams-for-education-training-videos-and-resources-926063cd-f5ab-4ded-804c-71fcafce8fdc?ui=en-US&rs=en-US&ad=US
- Onenote for Education and Teams https://www.microsoft.com/en-us/education/products/onenote/default.aspx
- You can see the Public Roadmap for changes here: https://www.microsoft.com/en-us/microsoft-365/roadmap?filters=&searchterms=Teams

Teams best feature?

Live Demo - Student Admissions Chat Bot

https://www.qnamaker.ai/

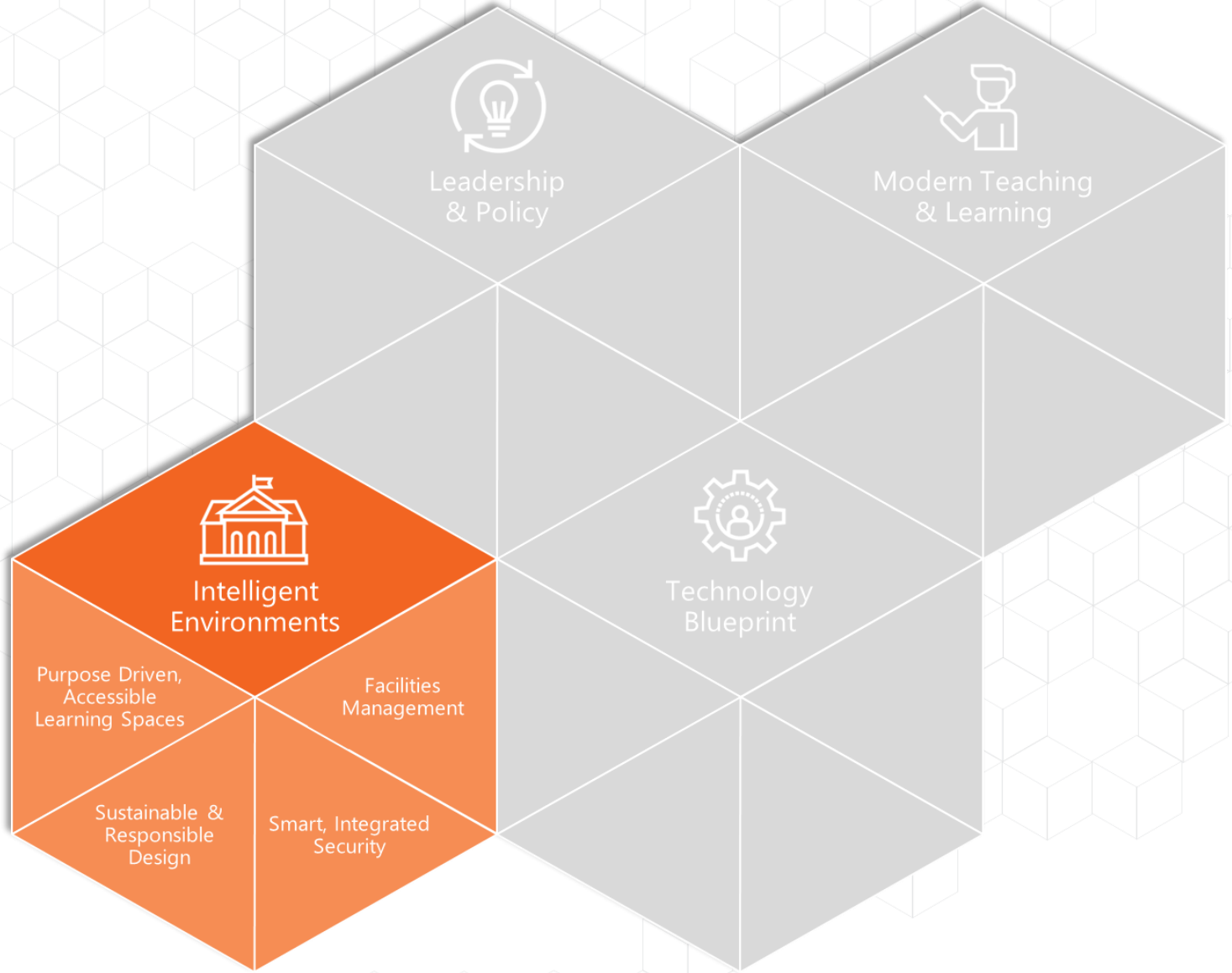
Microsoft

EDUCATION

Intelligent Environments

TRANSFORMATION FRAMEWORK

Creative collaboration in flexible learning spaces, creating more sustainable and energy-efficient ways of working, and providing responsive and coordinated security to keep learning communities safe.



EDUCATION

Intelligent Environments

TRANSFORMATION FRAMEWORK

1

Purpose-driven, Accessible Learning Spaces

Match physical learning spaces with learning goals to achieve more flexible spaces that let learners choose how they learn best.

EDUCATION

Purpose-driven, Accessible Learning Spaces

TRANSFORMATION FRAMEWORK

Environments that are intentionally designed to enable flexible and powerful learning meet the evolving needs of the learner.

EDUCATION

Purpose-driven, Accessible Learning Spaces

TRANSFORMATION FRAMEWORK

Example of a learning space:

Future Classroom Lab

- Built on 21C learning principles, for teacher training and inspiration for school design
- Space for inspiration for reconfiguring classrooms and schools

EDUCATION

Purpose-driven Accessible Learning Spaces

TRANSFORMATION FRAMEWORK

How might you redesign learning spaces in your institutions?

Think creatively about traditional spaces like classrooms, labs and libraries.

EDUCATION

Intelligent Environments

TRANSFORMATION FRAMEWORK

2

Sustainable & Responsible Design

Create healthy, thriving environments with plenty of fresh air, light and natural views.

Healthy buildings can help keep learners alert and engaged by optimizing lighting and climate control via sensors.

By reducing cost these designs can also free resources to invest in learning.

EDUCATION

Sustainable & Responsible Design

TRANSFORMATION FRAMEWORK

Schools that have enough light and fresh air significantly improve learning outcomes.

Microsoft

Microsoft Success Story | Wilburton Elementary School

EDUCATION

Intelligent Environments

TRANSFORMATION FRAMEWORK

3

Smart, Integrated Security

Employ intelligent safety systems to proactively make schools safer and reduce bullying and other threats.

Such systems can track people and assets, alerting the school community to safety issues. These systems also control physical access to school facilities dynamically, aiding emergency response.

EDUCATION

Smart, Integrated Security

TRANSFORMATION FRAMEWORK

It’s important to maintain safety and security in schools. One crucial way to improve and promote security on your campus is to install integrated security systems that include access control to help keep schools secure and students and faculty safe.

EDUCATION

Smart, Integrated Security

TRANSFORMATION FRAMEWORK

Internet of Things (IoT)

Safety and security

Buildings and energy efficiency

Access, control, and payments

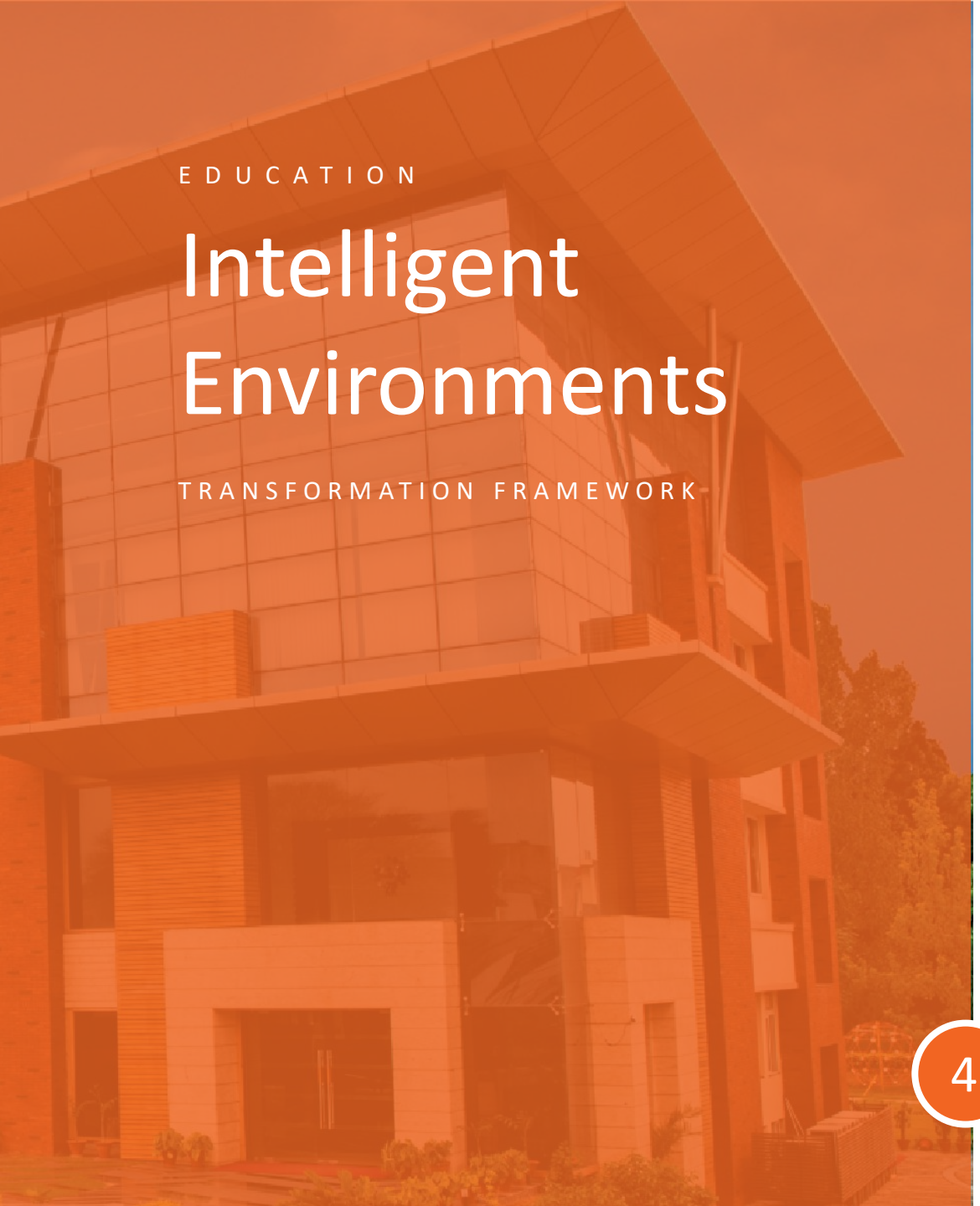
Connected transportation

Rich Analytics

Institutional rankings

Student experience

Student achievement



EDUCATION

Intelligent Environments

TRANSFORMATION FRAMEWORK

Facilities Management

Use the internet of things (IoT), the cloud, and data analytics to manage complex school environments more efficiently.

EDUCATION

Facilities Management

TRANSFORMATION FRAMEWORK

Effective management of facilities can save costs for management and re-focus budgets on learning.

- CRM for staff management, student enrolment, etc.
- Digital library platforms
- Digital payment systems for cafeterias

EDUCATION

Facilities Management

TRANSFORMATION FRAMEWORK

What are four key actions we can take to improve facilities management?

How will we measure impact?

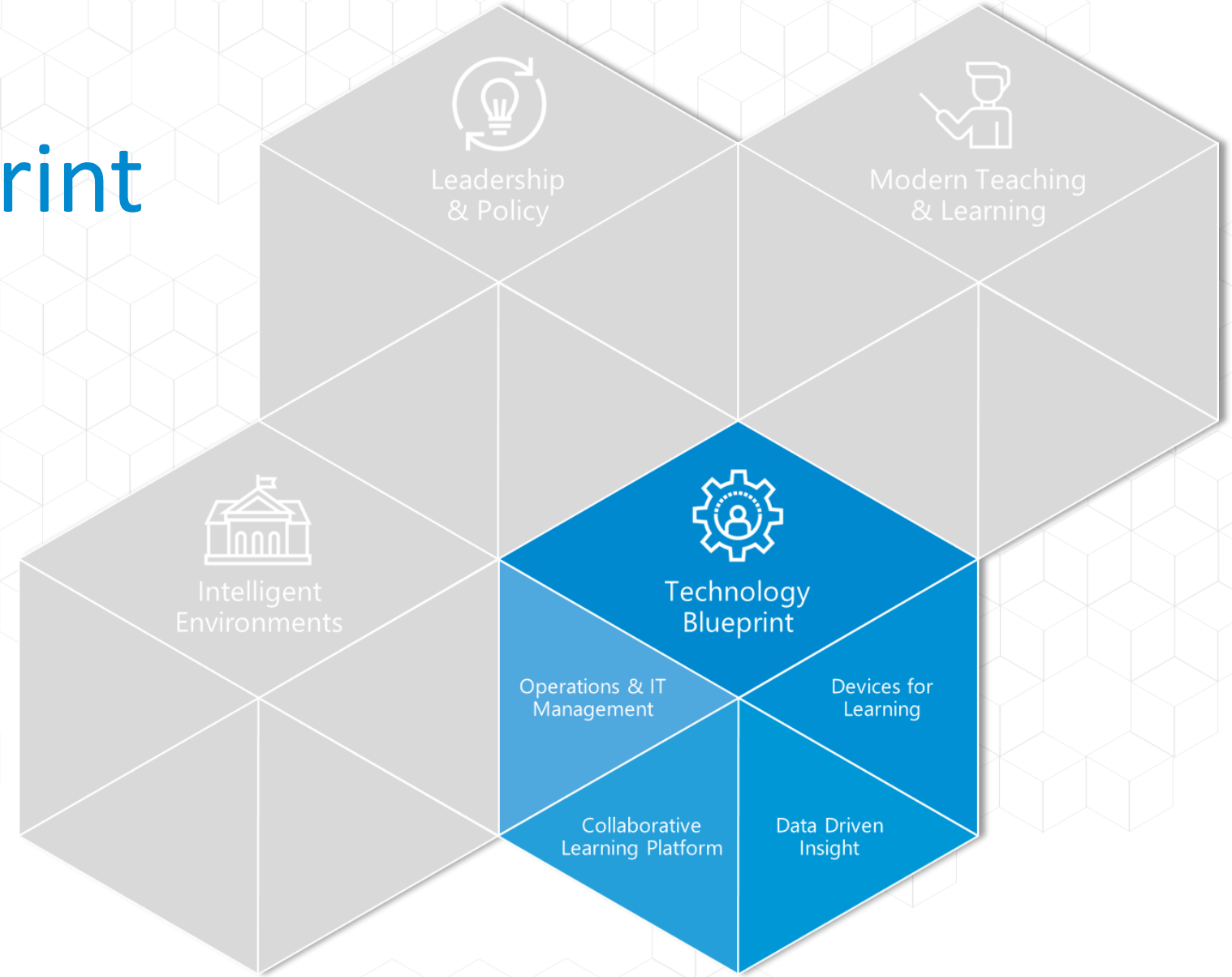
Discuss.

EDUCATION

Technology Blueprint

TRANSFORMATION FRAMEWORK

A reliable, responsive and data-driven technology environment empowering teachers, learners and administrators to achieve more every day in the modern classroom.



EDUCATION

Technology Blueprint

TRANSFORMATION FRAMEWORK

1

Operations & IT Management

Create an agile, flexible, and responsive operations and IT environment. Your aim is to put in place a platform and applications that serve the needs of every learner, teacher, and administrator across your educational system or institution.

EDUCATION

Operations & IT Management

TRANSFORMATION FRAMEWORK

Operations tools are vital for the success of most organizations.

Every organization has different needs, and every situation varies, so it is important to customize operations tools to ensure your organization is operating as efficiently as possible.

Show by hand and share

If you had to rate your operations and IT management from 1 to 5 with 1 being non-existent and 5 being world-class, where are you?

The evolution of the IT department

- IT teams locked away in a basement doing network maintenance all day? Far from the truth, IT now actively drives business.
- Enabler
- Facilitator
- By adopting the cloud for building and migrating business systems, large enterprises can free their IT teams from managing basic computing infrastructure, such as servers, storage devices, switches, and databases, and empower them to generate greater value by taking advantage of the latest technology and tools. (BCG Jan. 2019)

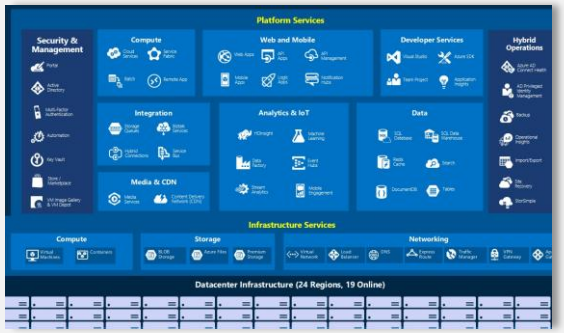
EDUCATION

Operations & IT Management

TRANSFORMATION FRAMEWORK

Operations & IT Management Tools

Data Collection & Connection

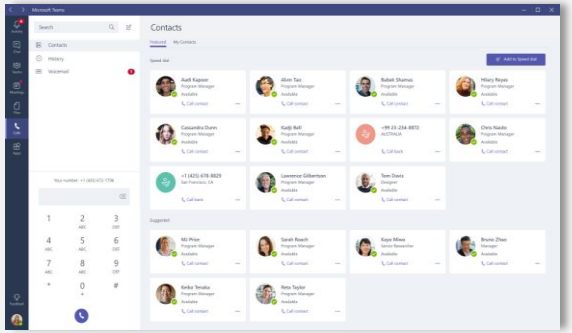


Microsoft Azure

Data Analysis, Visualization & Automation

Power BI

Productivity & Collaboration



Microsoft Teams

Describe the needs of your staff from technical infrastructure.

EDUCATION

Technology Blueprint

TRANSFORMATION FRAMEWORK

2

Collaborative Learning Platform

Enable next-level collaboration central to modern teaching and learning. The right platform brings together people, learning content and insights. This can make the difference between success and failure for teachers and students.

EDUCATION

Collaborative Learning Platform

TRANSFORMATION FRAMEWORK

Your aim is to put in place a platform and applications that serve the needs of every learner, teacher and administrator across your educational system or institution.

Technology is the vehicle for change, if strategically deployed.

Microsoft

Microsoft Success Story | Fresno Unified School District

EDUCATION

Teacher Infrastructure Needs

TRANSFORMATION FRAMEWORK

Staff won't adopt technology if they feel it's unreliable or difficult to use.

Describe the needs of your staff from technical infrastructure.

3:00
MINUTES

EDUCATION

Technology Blueprint

TRANSFORMATION FRAMEWORK

3

Data-driven Insight

Employ evidence-based decision making to transform student learning and your education system. Easy-to-use tools can turn data into comprehensive decision-making instruments providing evidence for instructional decisions.

EDUCATION

Data-driven Insight

TRANSFORMATION FRAMEWORK

Track every student’s learnings and facilitate more data-driven decisions so you and your team can intervene and take action when a student is falling behind.

Use data-driven insights to customize the learning experience based on each student's individual skills, abilities, and preferences.

Challenge is a Superpower: Shifting a generation one student at a time

Microsoft Success Story | Tucson Unified School District

EDUCATION

Teacher Infrastructure Needs

TRANSFORMATION FRAMEWORK

Staff won't adopt technology if they feel it's unreliable or difficult to use.

Describe the needs of your staff from technical infrastructure.

3:00
MINUTES

EDUCATION

Technology Blueprint

TRANSFORMATION FRAMEWORK

Devices for Learning

Choose devices that offer superior value and support for learning. Powerful devices that can run real-world software, provide accessibility tools for targeted differentiation, and enable rich 3-D learning experiences in order to develop learners who are future ready.

EDUCATION

Devices for Learning

TRANSFORMATION FRAMEWORK

Your job as an educator is to prepare your students for the future. Working with mobile devices will not only be a part of their everyday lives as adults, but it will also be vital part of many career paths.

Knowing how to appropriately use mobile devices is an important aspect in this increasingly connected world.

Macro Trends in K-12 Education

Tech-heavy education

Future K-12 classrooms will rely heavily on educational technologies to deliver content, enable cons tant access to educational materials and provide personalized feedback to students on their performance.

Data and analytics

The rise of “big data” and the development of more accur ate learning analytics software will be central to improving student outcomes in the near future.

Virtual learning spaces

Fully virtual K-12 classrooms will become more common in the future, with many students never setting foot in a physical classroom space.

WHAT DO SCHOOLS **NEED TO TAKE INTO CONSIDERATION** WHEN CHOOSING A DEVICE?

Learning Outcomes & Goals

Determining form factor to meet the needs of students & teachers

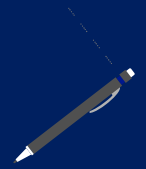
Clearly defining how the device supports the use case scenarios, including working with peripherals

Ensuring security for students and teachers, and protection for the devices.

INTERFACES VS. LEARNING PROCESS

Explore

Keyboards, mouse and touch may be suited to researching, collecting information, or exploring content.



Think

Digital pen Is best suited for thinking processes like conceptualizing, prototyping, sketching, brainstorming, memorizing, and knowledge construction.

Express

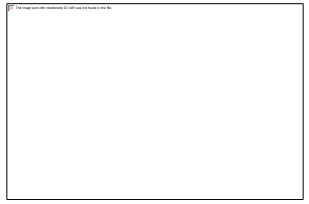
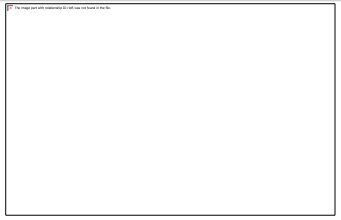
Multiple inputs may be suited to expression, or organizing and consolidating ideas.

Collaborate & Record

Multiple inputs may be suited to collaborating, presenting, and recording ideas.

Amazing & affordable new devices for K through College

- Windows 10 Pro & 10 S devices starting at $189 & 2-in-1 starting at $279 with Windows Ink

Good Ruggedized notebooks designed for students	 **Lenovo 100e** Starting at $189*	 **Acer TravelMate B117** Starting at $195*	 **JP Classmate Leap T303** Starting at $199	 **HP Stream 11 Pro G4 EE** Starting at $219	 **Dell Latitude 11 3180** Starting at $229
Better 2-in-1s with touch and Windows Ink	 **Lenovo 300e** Starting at $279*	 **HP ProBook x360 11 EE** Starting at $299	 **Dell Latitude 11 3189** Starting at $299	 **Acer TravelMate Spin B1** Starting at $299	 **Microsoft Surface Go** Starting at $399
Best More performant with higher end processors	 **Lenovo ThinkPad 11e**	 **Lenovo ThinkPad 11e Yoga**	 **Toshiba Tecra C-40D**	 **Toshiba Portege X20W-D**	 **Microsoft Surface Pro** Starting at $799

Note: *Pricing is for US market, K-12 customers. Some devices may not be available in all markets worldwide.

Intune demo


InPrivate
Dashboard
Intune for Education
Dashboard
New dashboard
Edit dashboard
Fullscreen
Clone
Delete
Launch Express Configuration
Click here to choose settings and applications for a user group
School Data Sync
STUDENTS
17
TEACHERS
12
Manage user and device groups
12 Groups
Manage apps
23 Apps

EDUCATION

Ideal Device Activity

TRANSFORMATION FRAMEWORK

What do you expect teachers and students to do with their devices?

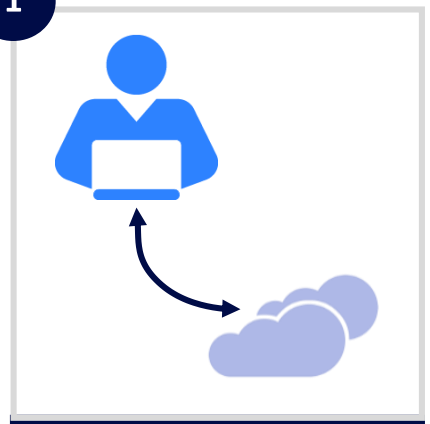
Write down scenarios for each audience.


Hełm
Hamak
Hiena
Hamburger
Helikopter
Hydraulik
Hak

Data Security

Protect your data at stages with 2048-bit encryption

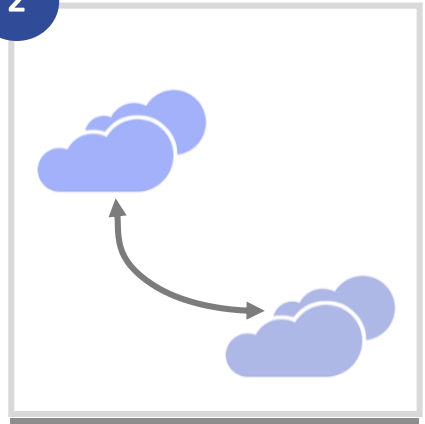
1



Data in transit between a user and the service

Protects user from interception of their communication and helps ensure transaction integrity

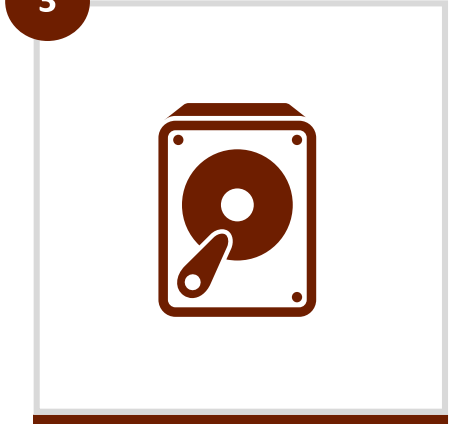
2



Data in transit between data centers

Protects from bulk interception of data

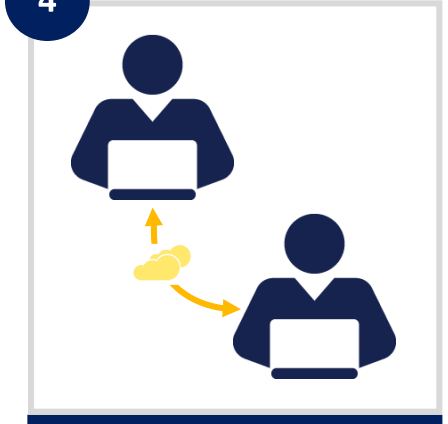
3



Data at rest

Protects from removal of physical media

4

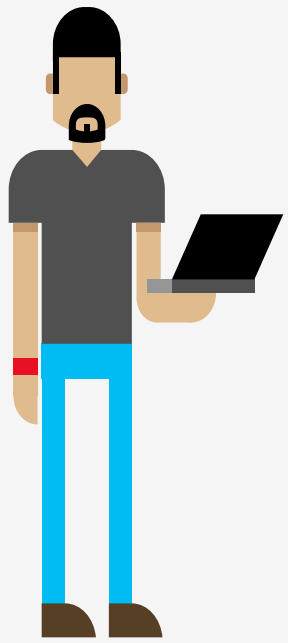


End-to-end encryption of communications between users

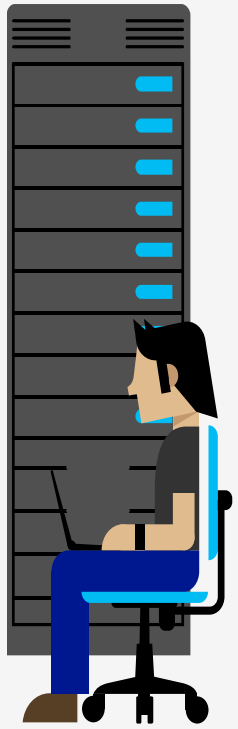
Protects from interception or loss of data in transit between users

Backup and Recovery

Safe, Fast, Inexpensive Solution



Administration



IT

Opportunities

Lower TCO: roughly 50% cost reduction over most on-prem DR; backup prices were reduced up to 85% April 1, 2015

Peace of Mind: Reliable, offsite, & potentially geo-replicated backup store

Increased Uptime: 99.9% Availability guaranteed

Fast: automatic, testable backups

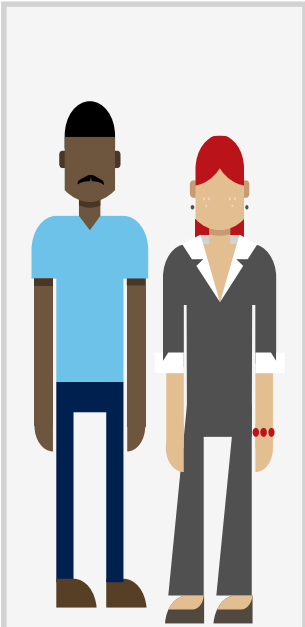
Minimal Bandwidth Use: Efficient incremental backups

Safety: Secure, encrypted in-transit and at-rest

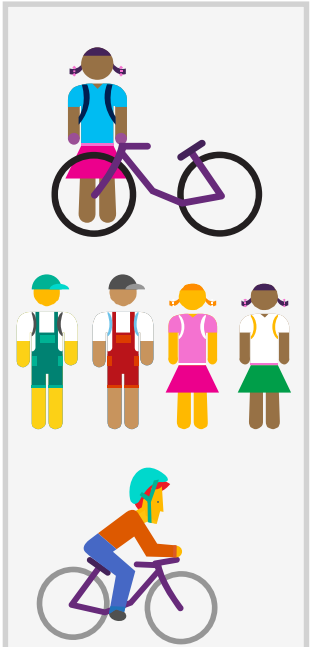
Privacy: certified against worldwide standards

Website and Web App Value Proposition

Meet usage spikes with ease



Faculty



Students

IT

Opportunities

Auto-Scale: Seamlessly grows and load balances with your usage, with limits set by you

Reduce bandwidth: Does not rely on or use up the institution's bandwidth

Uptime: highly available, isolated environment

Favorite Tools: Supports CMS solutions including WordPress, Drupal, Joomla, Umbraco and DotNetNuke, and deployment using Git Push, FTP, FTPS and Web Deploy

Language Support: ASP.NET, Java, PHP, Node.js, Python

Save Money: All the economy of scale arguments apply

Azure Strengths

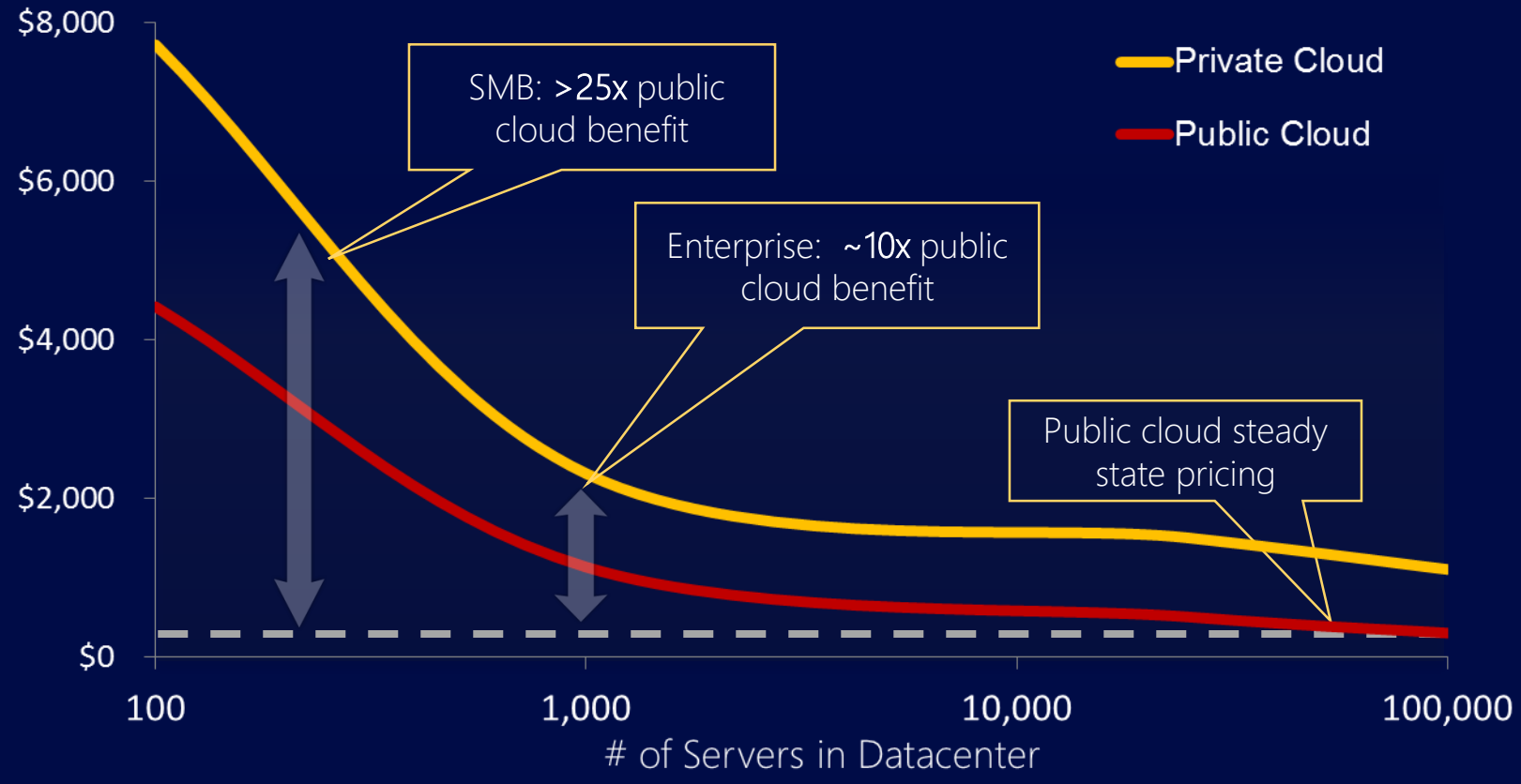
Economy of Scale ▪ Agile Scaling ▪ Pay-as-you-go

Pooled Resources

Elastic

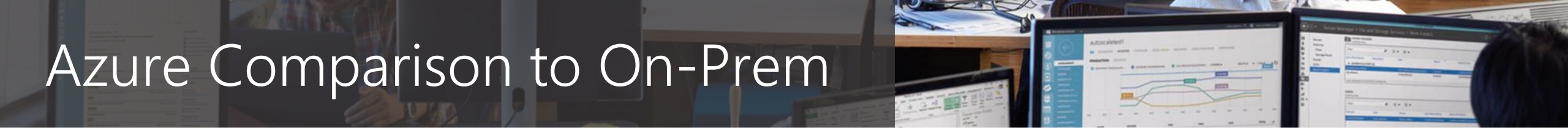
Usage Based

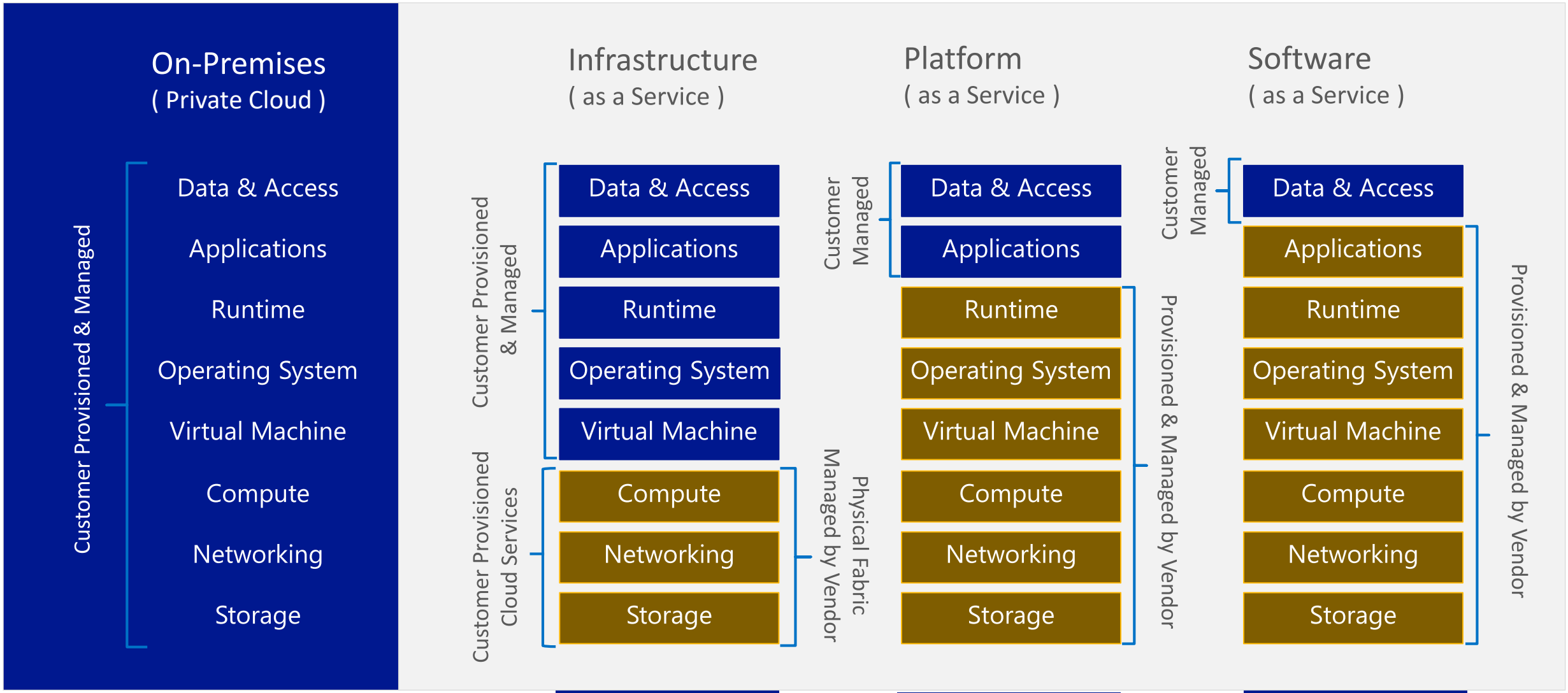
Economics of the Cloud



Source: Microsoft

Azure Comparison to On-Prem





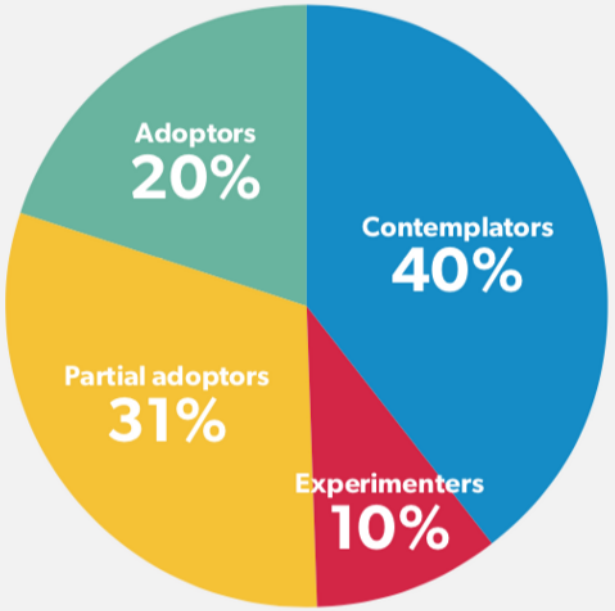
Cloud side-effects

- While many large enterprises select the cloud to save money—and they do generally save 15% to 40% of IT operating costs—its primary benefits are **increased agility and better performance.**
- **Speed and Agility.** BCG experience suggests that by turning to the cloud, large enterprises are often able to **bring out services 30% to 60% faster**, compared with creating bespoke in-house infrastructure.
- Development and deployment of services and functionality also speed up dramatically on the cloud. In addition, the cloud can **reduce risk** by improving data resilience, security monitoring, and user access.
- Finally, many of the cloud-enabled ways of working, such as **agile and DevOps** (a silo-breaking development method) **deliver higher-quality solutions faster**.

Source: BCG, Jan. 2019

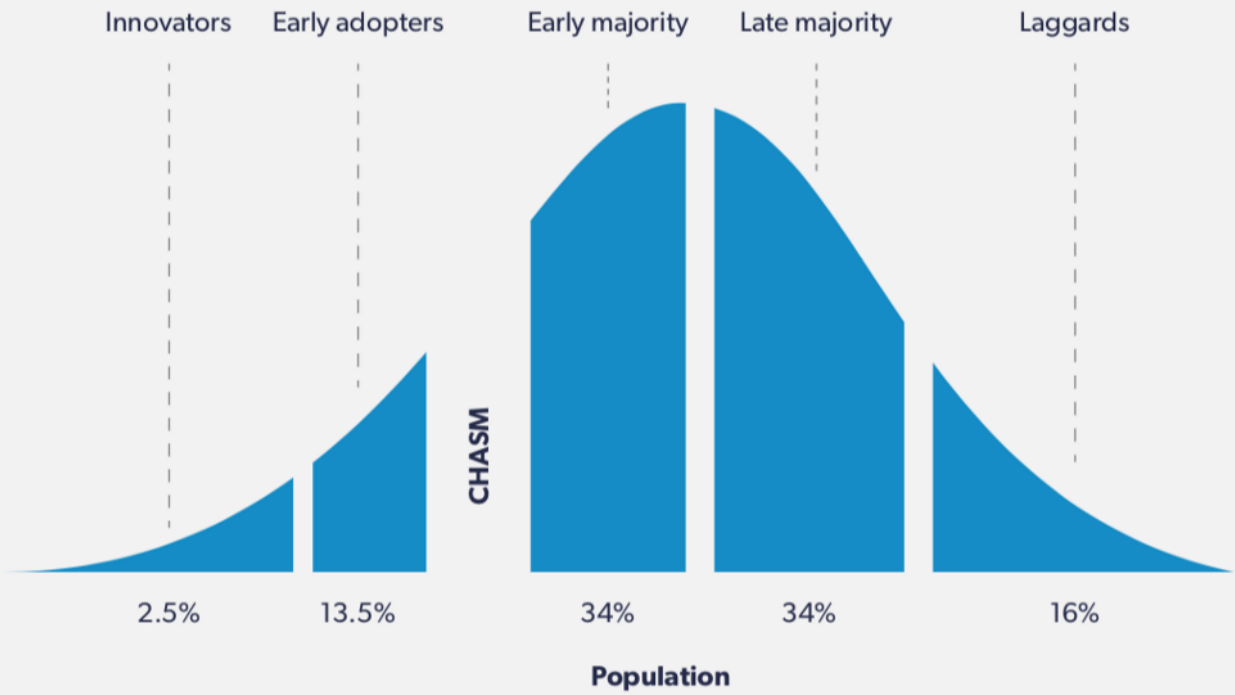
AI is crossing the chasm… Adoption has tripled in the last 12 months!

Fig. 28. 20% of AI-aware companies have begun adoption



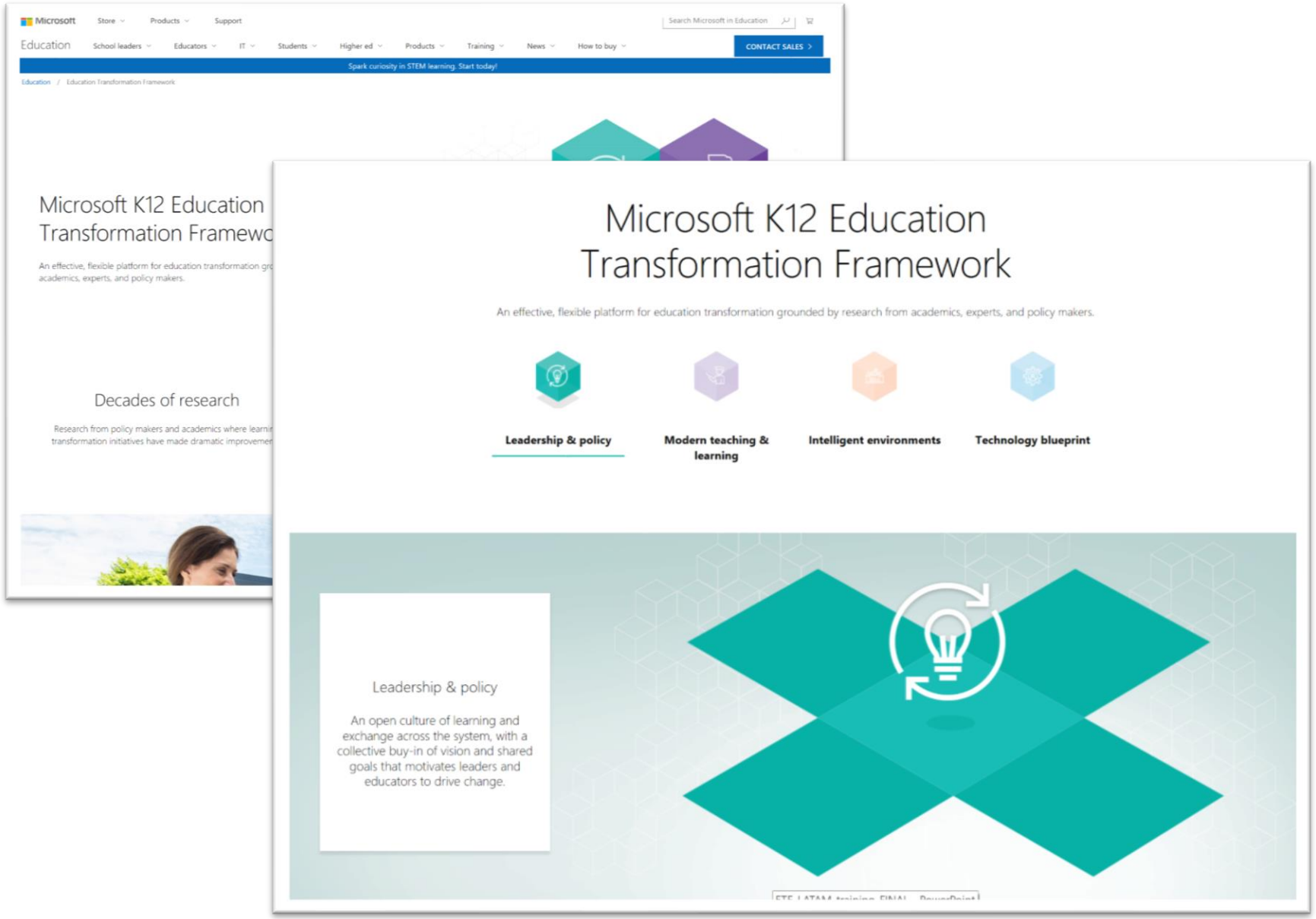
Source: McKinsey Global Institute

Fig. 29. AI adoption is 'crossing the chasm' to the early majority



Source: Everett Rogers, Geoffrey Moore

Find out more on the website



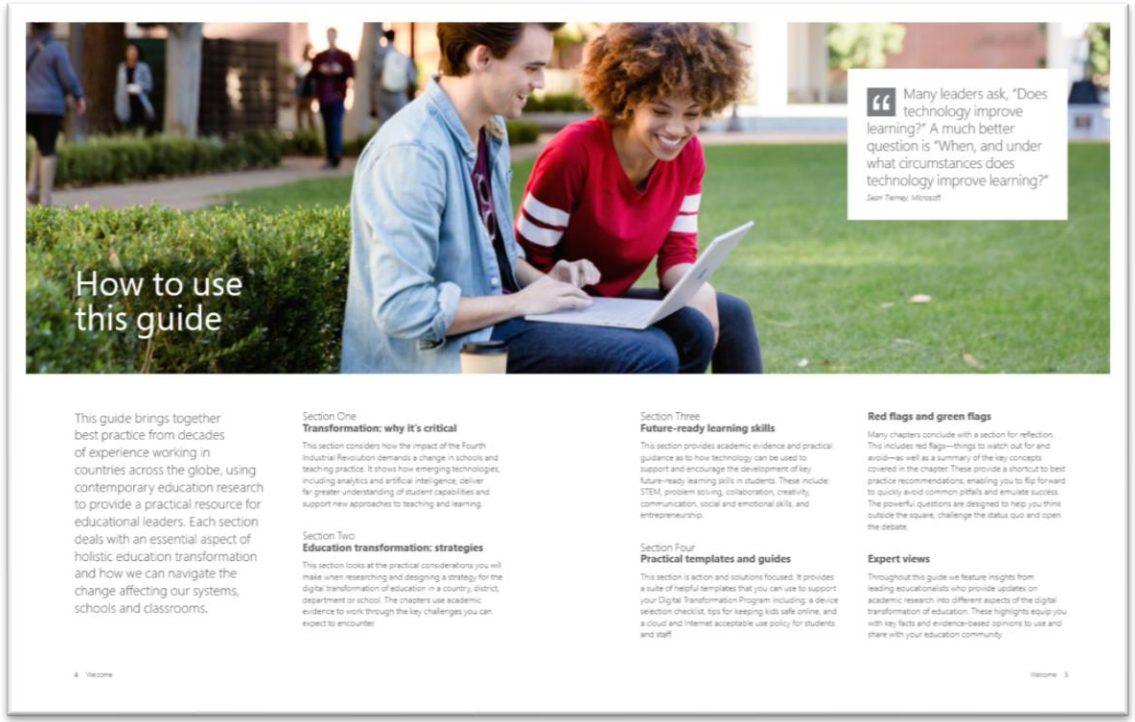
https://aka.ms/etf

- Brochures
- Summaries
- eBooks

Transforming Education eBook

A Microsoft led resource packed with over 260 pages of research, evidence and experiences from countries around the world to share advice on how to take steps to achieve ambitious change in education.

https://aka.ms/etfbook



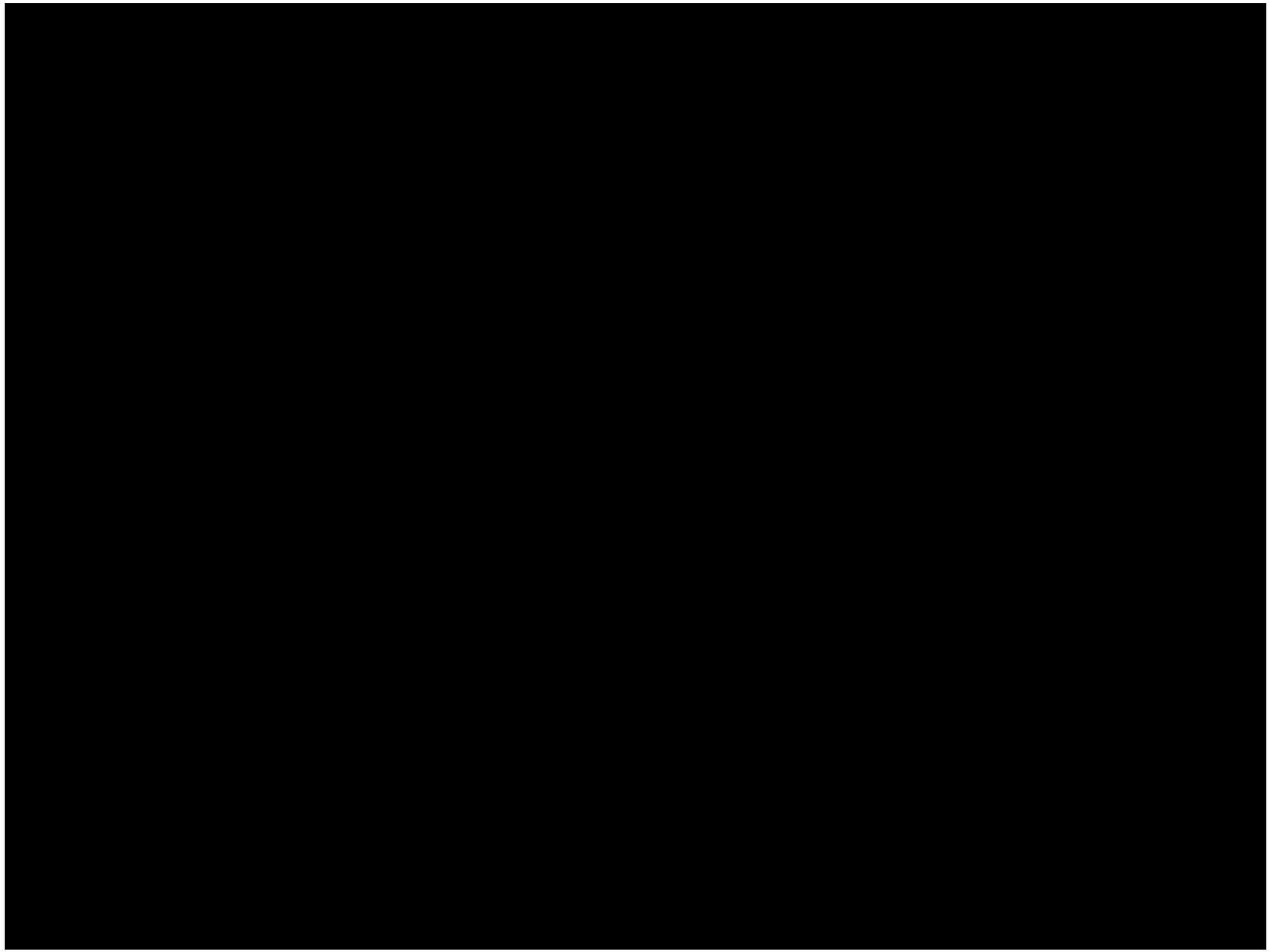
Take action

- **Teams!**

- **Microsoft Learning Tools** are free tools that implement proven techniques to improve reading and writing for learners regardless of their age or ability. https://www.microsoft.com/en-us/education/products/learning-tools

- **AI business school for education** https://docs.microsoft.com/en-us/learn/paths/ai-business-school-education/

We know the difficulties…



Thank you!

Education Transformation Framework

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