CertMatters:*Live*

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Microsoft

Bay House School & Sixth Form

BCSE British Council for School Environments

Edtech INCUBATOR

EdtechUK

education extra

My journey

MAYOR OF LONDON

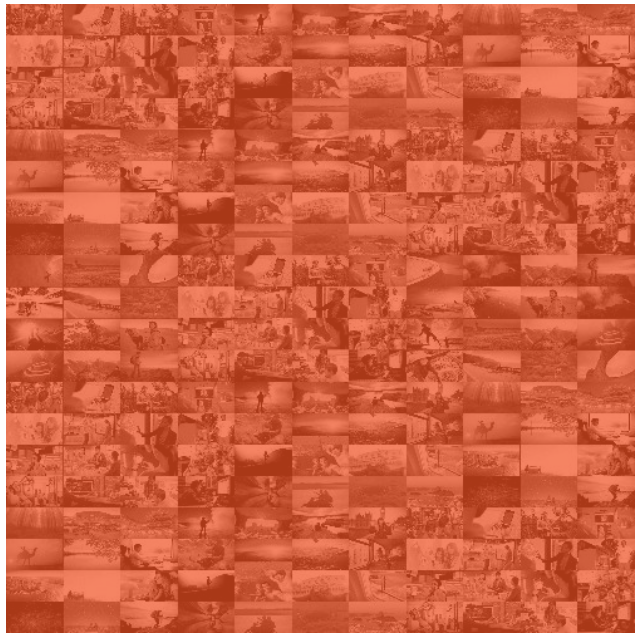
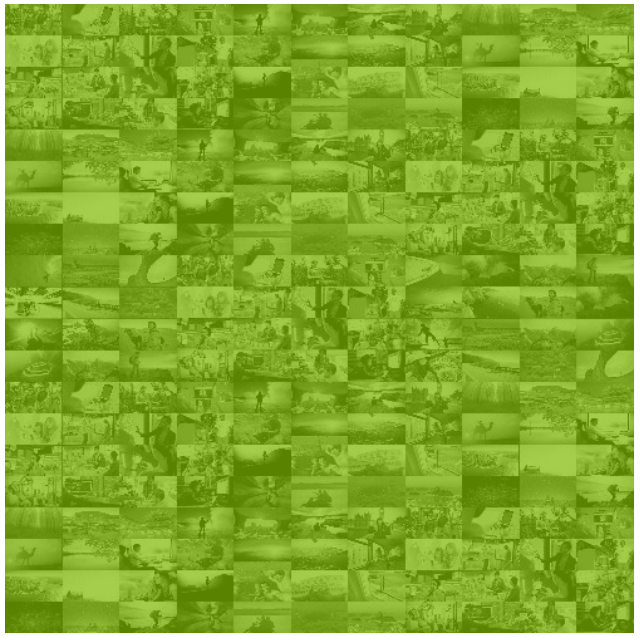
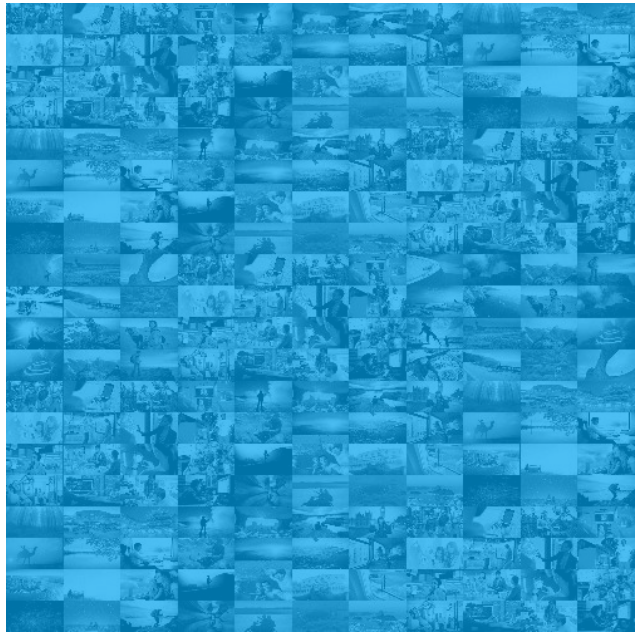
continYou Changing lives through learning

The Education Foundation REFORM • TECHNOLOGY • INNOVATION

Microsoft

Microsoft mission

Empower every person and every organisation on the planet to achieve more

Education mission

Empower every **educator** and every **learner** on the planet to achieve more

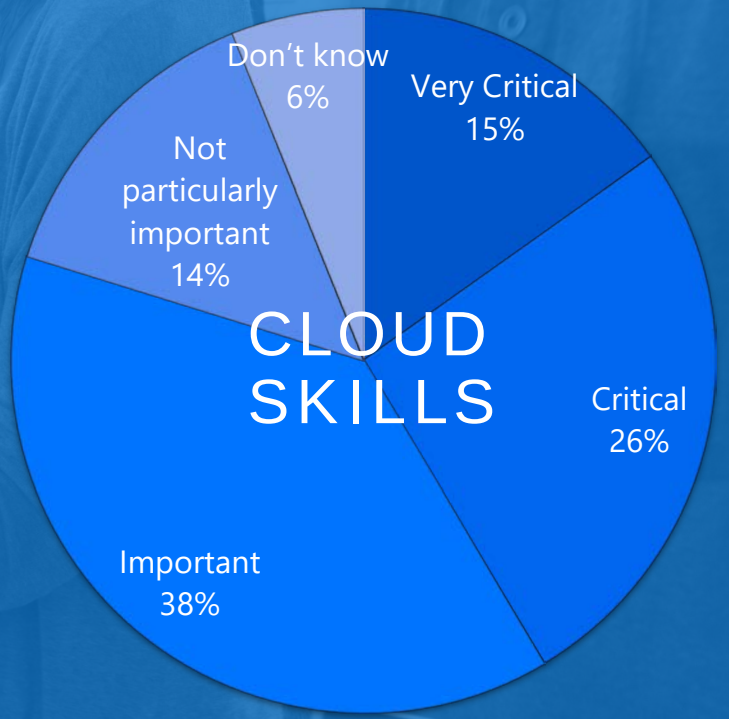
where **skills** go next

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.

*Source: Bureau of Labor Statistics, Department of Labor

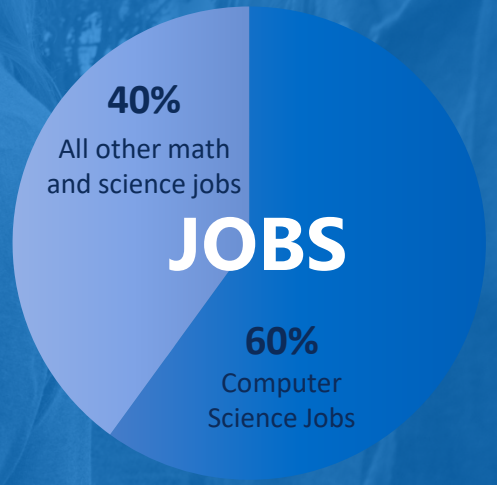
BY 2022, THERE WILL BE
6.2 MILLION
NEW IT JOBS
MOST IN CLOUD-RELATED FIELDS.
IT LABOUR SHORTAGE REPORT

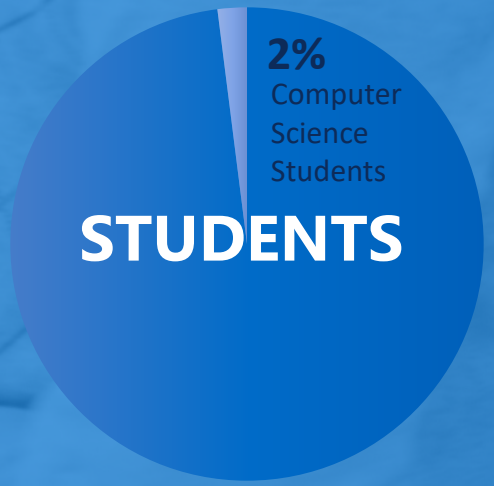
80% of IT leaders are looking for **CLOUD SKILLS** but **33%** have struggled to find them



Breakdown of companies 250-999 employees

60% of STEM jobs are in COMPUTER SCIENCE



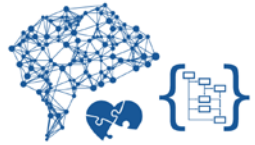


Yet only 2% of STEM grads FILL THE PIPELINE

Future ready skills across the education system

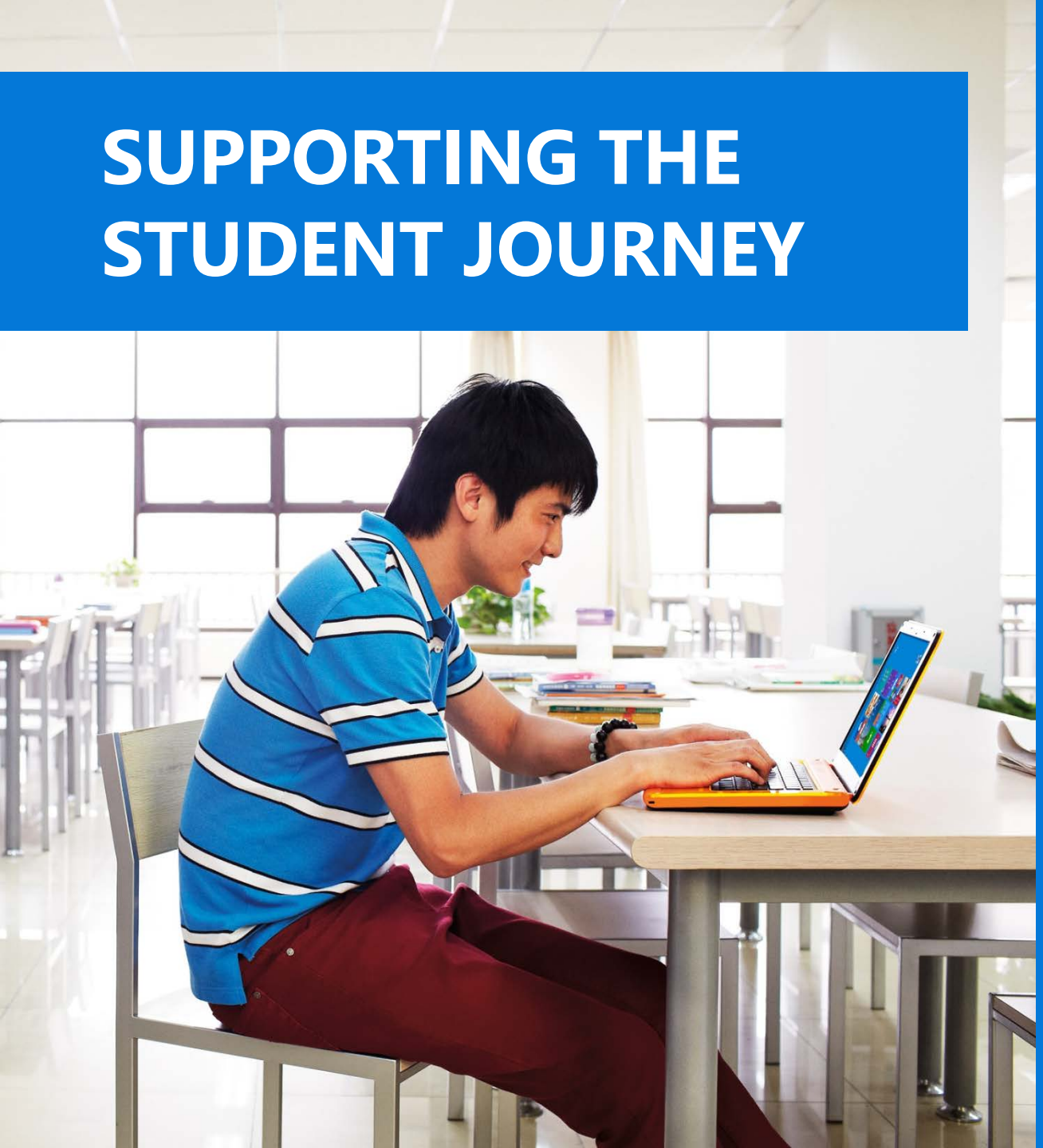
Top 10 skills

in 2020	in 2015
1. Complex Problem Solving	1. Complex Problem Solving
2. Critical Thinking	2. Coordinating with Others
3. Creativity	3. People Management
4. People Management	4. Critical Thinking
5. Coordinating with Others	5. Negotiation
6. Emotional Intelligence	6. Quality Control
7. Judgment and Decision Making	7. Service Orientation
8. Service Orientation	8. Judgment and Decision Making
9. Negotiation	9. Active Listening
10. Cognitive Flexibility	10. Creativity



Source: Future of Jobs Report, World Economic Forum

SUPPORTING THE STUDENT JOURNEY



Microsoft Imagine Academy

Computer Science,
Data Science,
IT Pro & Productivity

MINECRAFT EDUCATION EDITION

Game-based Learning,
Computational Thinking

Microsoft Imagine

Free developer tools
& competitions including
Hello Cloud

POWERED BY OPENedX on Microsoft Azure

Microsoft Professional Program

Microsoft Professional
Program: Data Science*

Maker Space,
IoT, Data Visualisation

ARDUINO

Partner STEM APPS,
Engineering, Robotics
& more

*Offers Official Microsoft Certification or Credential

Computer Science

Hour of Code

Minecraft: Education Edition
- Getting Started with M:EE
- Circuitry with Redstone & M:EE
- Teaching & Learning with STEAM & M:EE
- Best Practices: Using M:EE with Students

MTA: Creative Coding through Games and Apps (CCGA)

Technopreneurship: From Pitch to Prototype

Introduction to Python

Computer Science Principles

MTA: Software Development Fundamentals

MTA: HTML5 Application Development Fundamentals

IT Infrastructure

MTA: Windows OS Fundamentals

MTA: Windows Server Administration Fundamentals

MTA: Networking Fundamentals

MTA: Security Fundamentals
- Security in AD DS Environments

MTA: Cloud Fundamentals
- Windows Azure for IT Pros
- Developing Windows Azure and Web Services
- Microsoft Azure Infrastructure Solutions

MTA: Mobility and Devices Fundamentals

- Early Skill Development
- Basic Skill Development
- Intermediate Skill Development
- Preparation for Microsoft Certification

Data Science *(in development)*

MOS: Excel 2016 and Excel Expert 2016

MTA: Database Fundamentals

Introduction to Data Science

Working with Non-Relational Data

Using Data in Software Applications

Analyzing and Visualizing Data with Excel

Data Science and Machine Learning Essentials

Productivity

Digital Literacy

MOS One Note: One Note 2010, 2013

MOS Word: Word 2010, 2013, 2016

MOS PowerPoint: PowerPoint 2010, 2013, 2016

MOS Excel: Excel 2010, 2013, 2016

MOS Word Expert: Word 2010, 2013, 2016

MOS Excel Expert: Word 2010, 2013, 2016

MOS Access: Access 2010, 2013, 2016

SUPPORTING GREAT EDUCATORS

Microsoft Educator Community

Microsoft Educator Experts

Microsoft Authorised Trainers

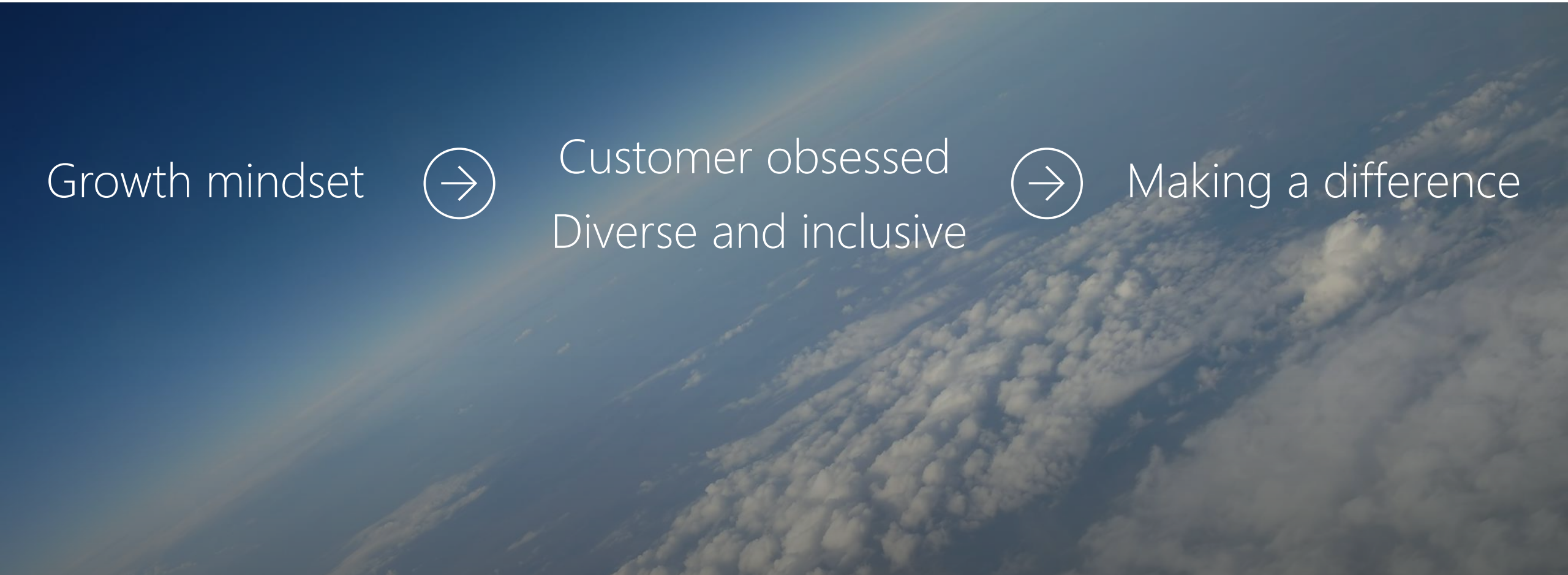
Microsoft Imagine Academy

- Microsoft Certified Educator
- Microsoft Office Specialist
- Microsoft Technology Associate

Microsoft Showcase Schools

It is a fast changing, increasingly digital world

But its **people & culture** that deliver change



Growth mindset

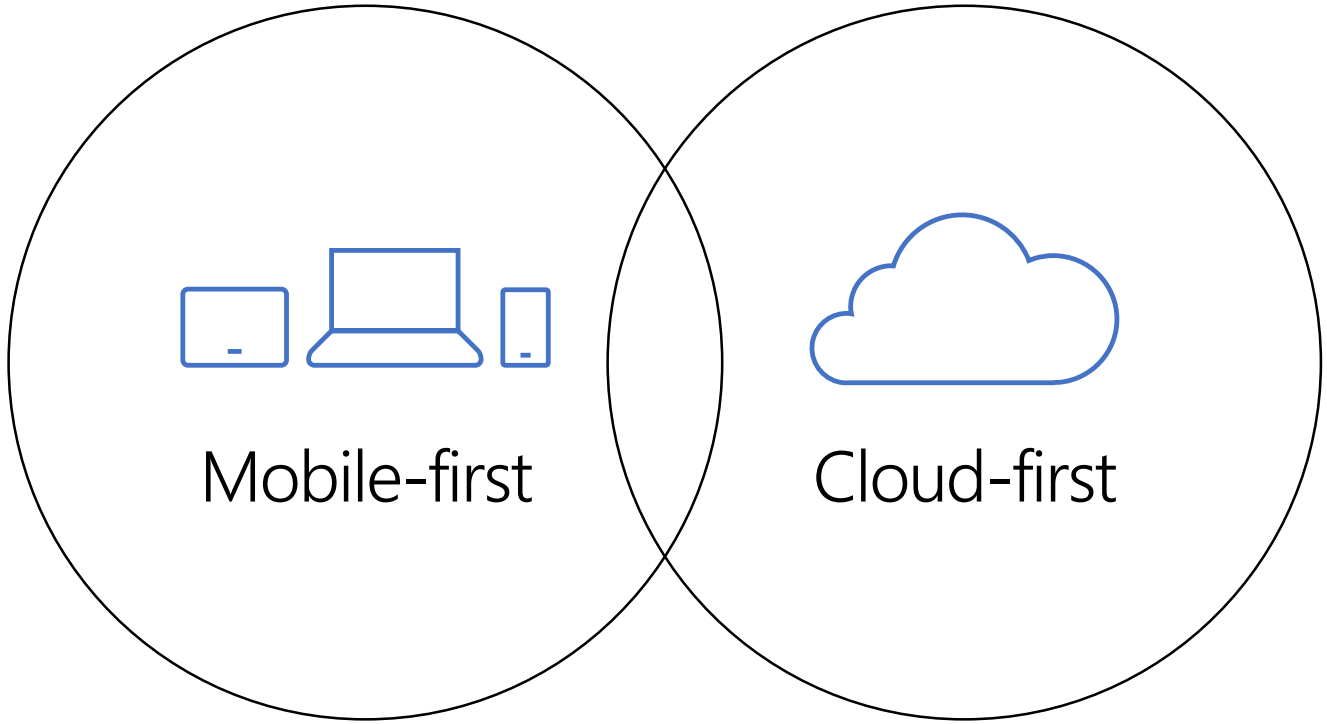
Fixed Mindset leads to a desire to look smart and therefore tendency to avoid challenges, give up easily, see failures as fruitless or worse, ignore useful negative feedback and feel threatened by success of others

Growth Mindset leads to a desire to learn and therefore a tendency to embrace challenges, persist in the face of setback, see failure as essential to mastery, learn from criticism and find lessons and inspiration in the success of others.

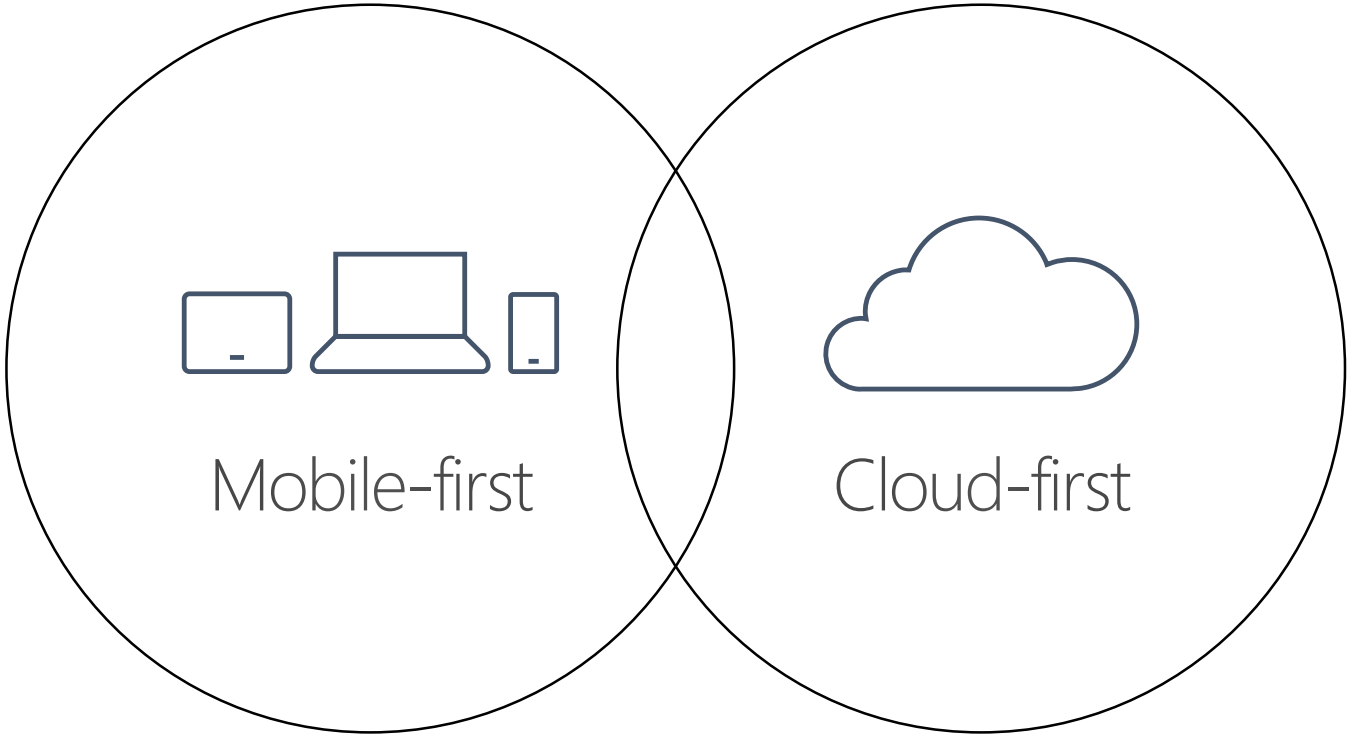
"As a culture, we are moving from a group of people who know it all to a group of people who need to learn it all"
Satya Nadella, CEO, Microsoft

where **technology** goes next

Microsoft's view



Big picture view

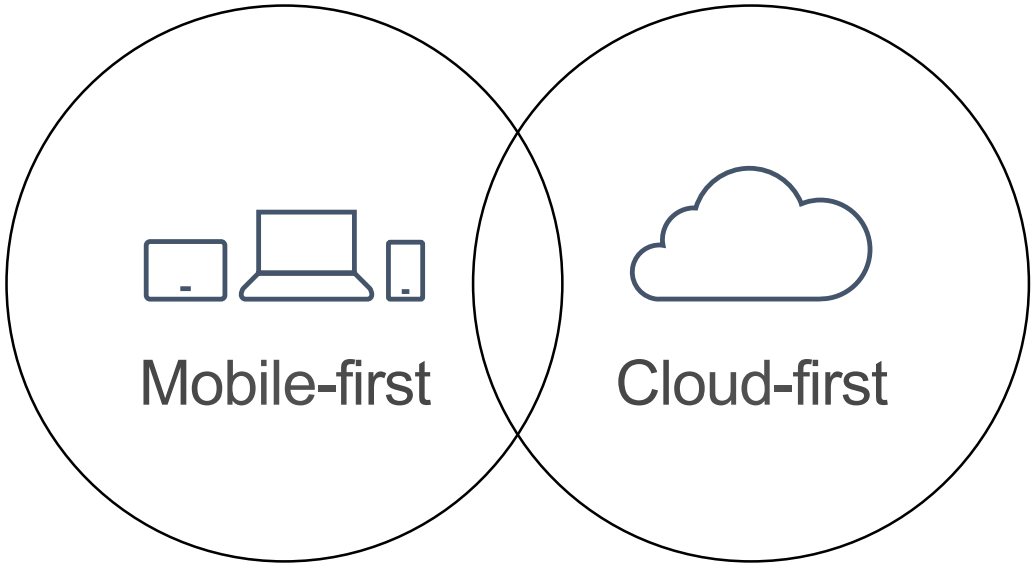


Big picture view

Agents & Bots

Natural & conversational user interfaces

Mixed Reality



Augmented Intelligence

Advanced analytics & workflows

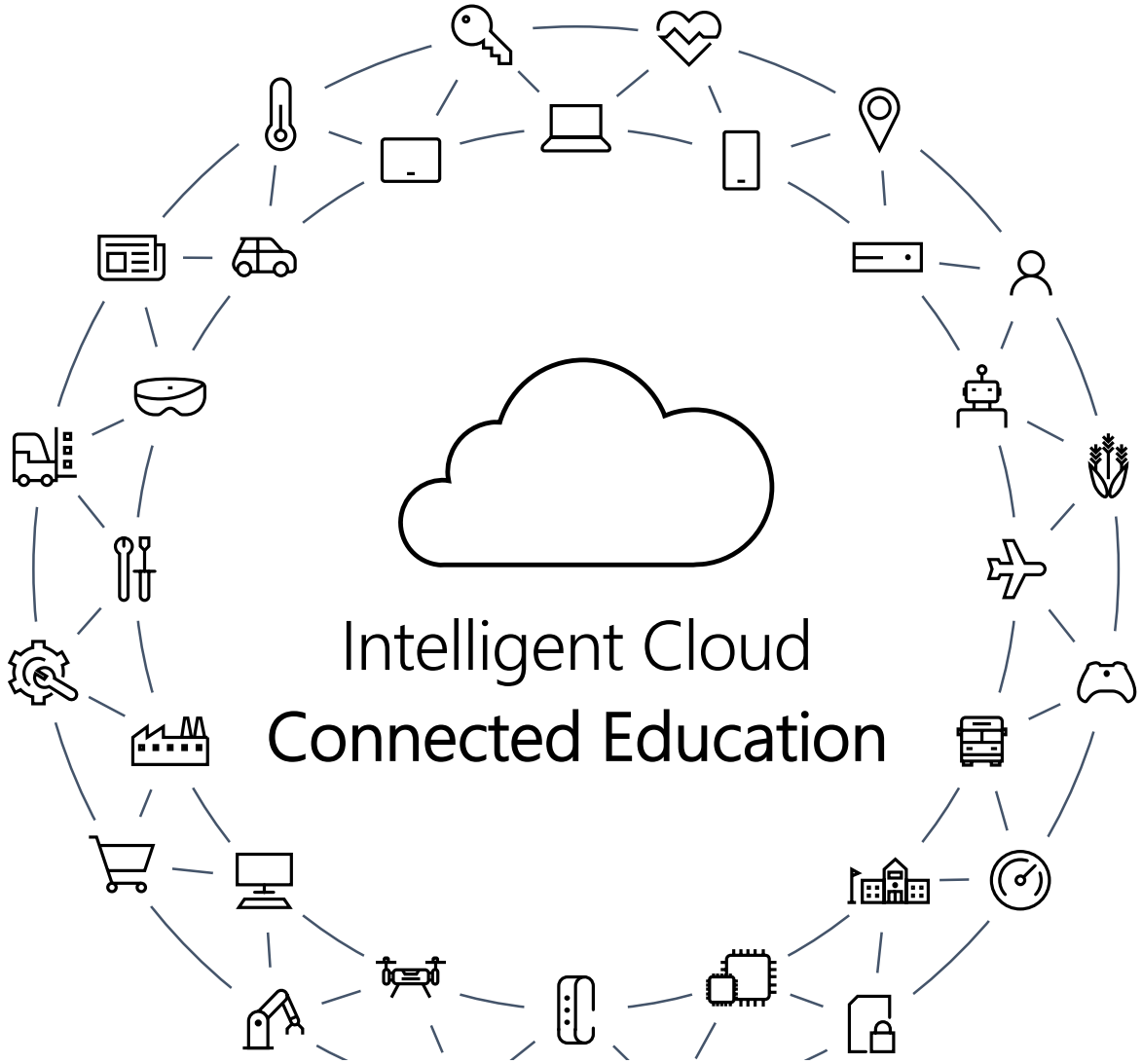
Internet of Things

Big picture view

Multi-device,
Multi-sense

Augmented
Intelligence

Serverless



Augmented intelligence
Educators + machines

What is AI?

Technology that can perceive, learn, reason,
assist in decision-making, and act
to help us solve problems.

Vision | Language | Speech | Search | Knowledge

Microsoft

AI School

where **education** goes next

Microsoft

"When you think about progress and improvement in the world - **education is like a master switch** One that opens up opportunities for individuals & societies"

Bill Gates

How do we democratise education opportunity?

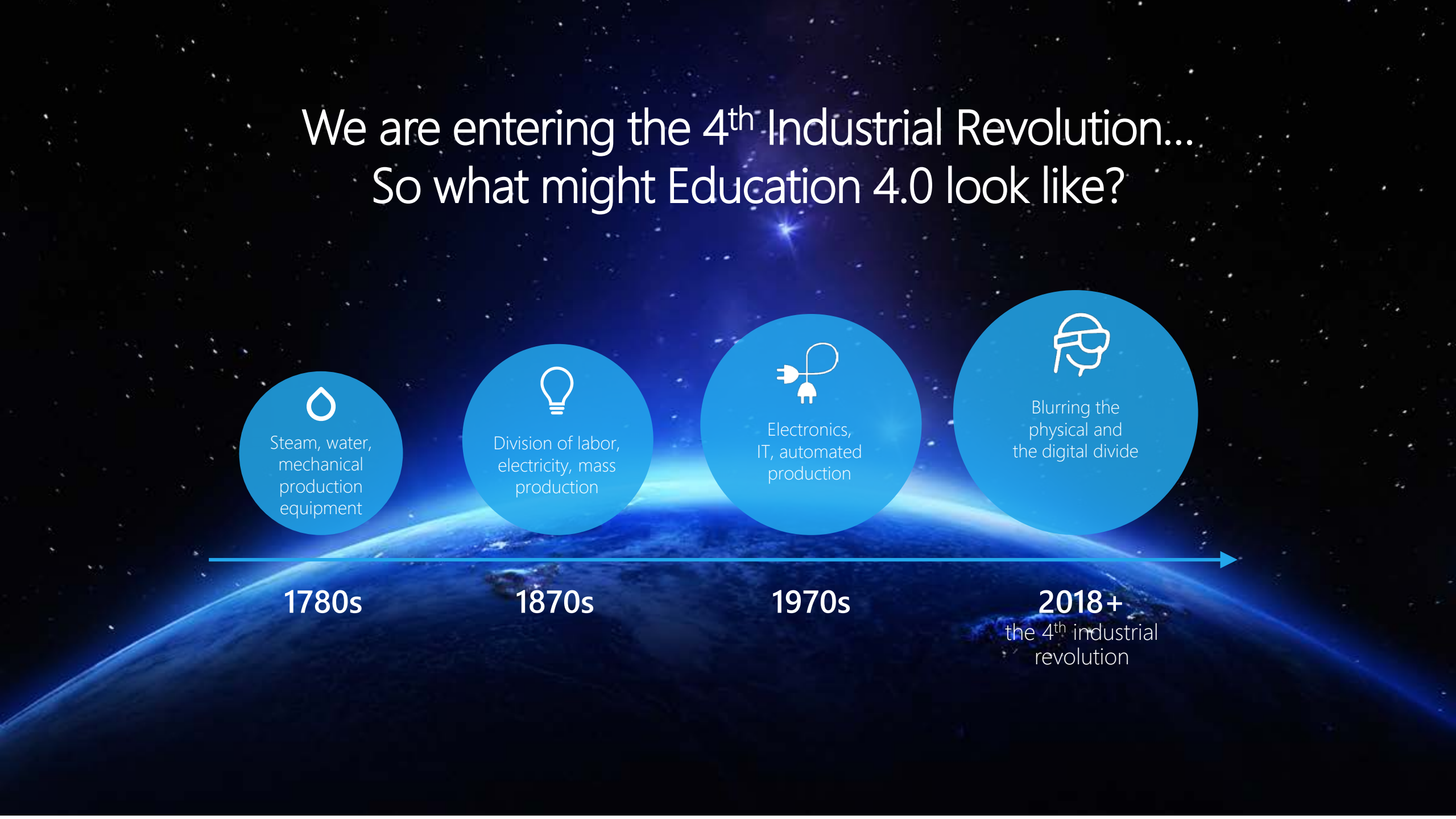
How do we tackle major education challenges?

How do we make learning accessible to all?

How can we use technology (Data, AI and Cloud) to help?

Microsoft

We are entering the 4th Industrial Revolution…
So what might Education 4.0 look like?



"Technology must have a role in our sector, as it does in other sectors, to be able to ease workload – which is a matter I know is of great importance for teachers in this country, and quite rightly so.

And I share their drive to be able to track and monitor the progress of pupils – and where there are further opportunities to bring new types of content to students and effectively introduce them to whole new worlds"

Damian Hinds, Secretary of State for Education
Education World Forum, January 2018

Microsoft Education

Empowering every educator and learner to achieve more.

Better learning outcomes

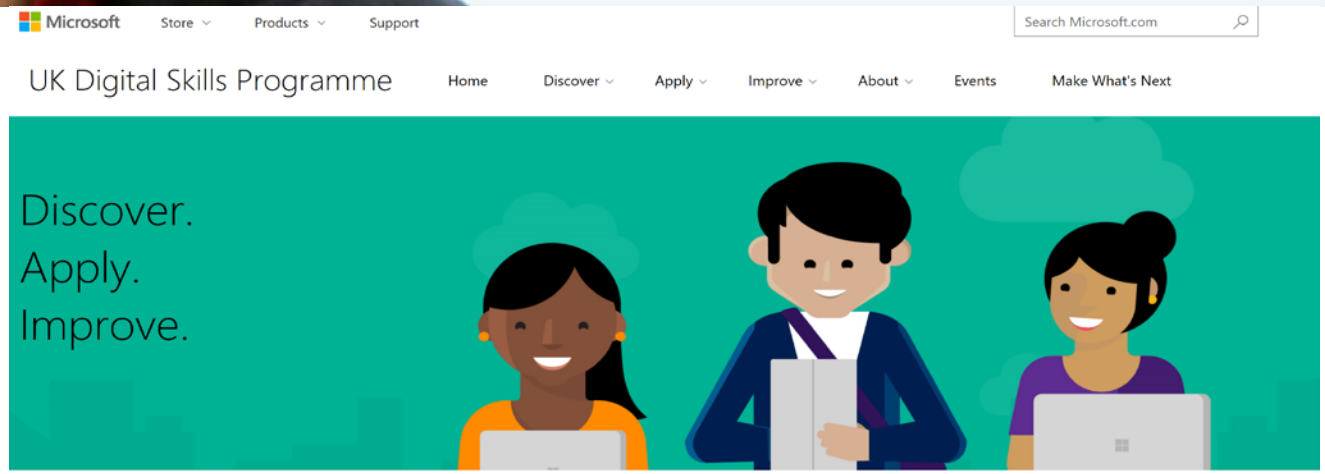
Save educators and leaders time

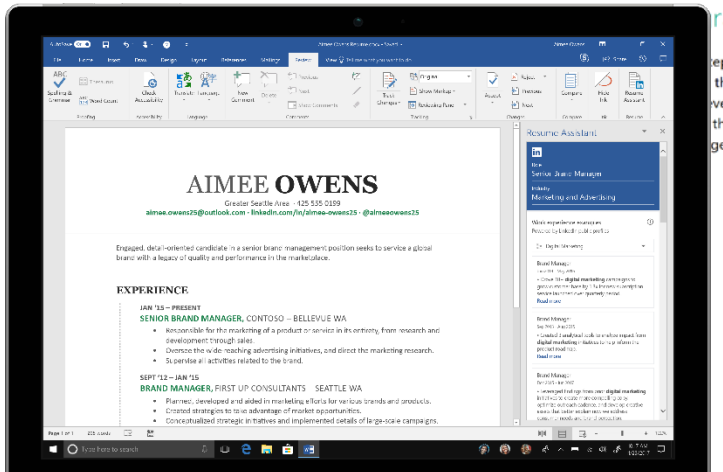
Impactful, accessible technology

Igniting interest in STEM & AI by developing coding and problem-solving skills

- Transform the experience of learning computer science using Code Builder in Minecraft: Education Edition
- Bridge science, engineering and coding with hands-on experiential learning with MakeCode and Hacking STEM

Prepare students for the future with skills they need now and for future work and life





ramme

ep forwards – whether in
the Microsoft UK Digital
ver your level. From 7 to
the resources to help you
ge.

Save educators and leaders time

- Save teachers time with tools for planning, assignments and communication
- Improve collaboration and teamwork in the classroom and around the world
- Increase independence and engagement of all students
- Stay focused on learning with reliable devices

Save educators time with easy to use tools for planning, homework and collaboration

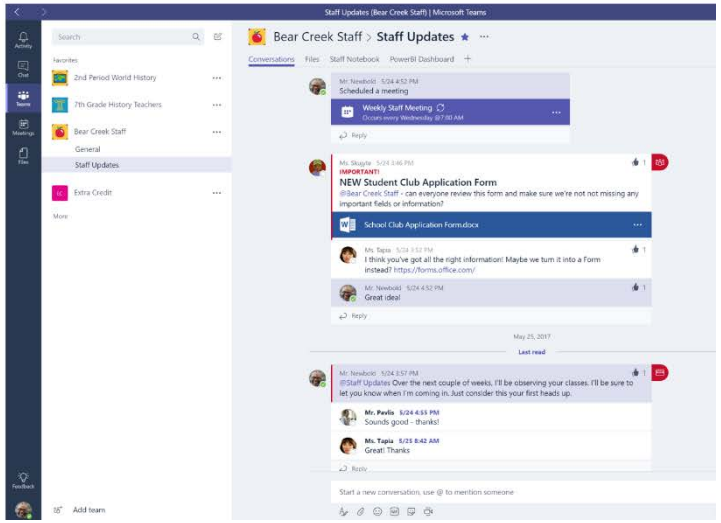
Streamline Staff Communication

Share information across educators, staff, and school leaders

Collaborate on school wide initiatives with built-in Staff Notebooks

Easily create and share content with embedded Office aps and files

Come together in a team for any team-based or project based activity

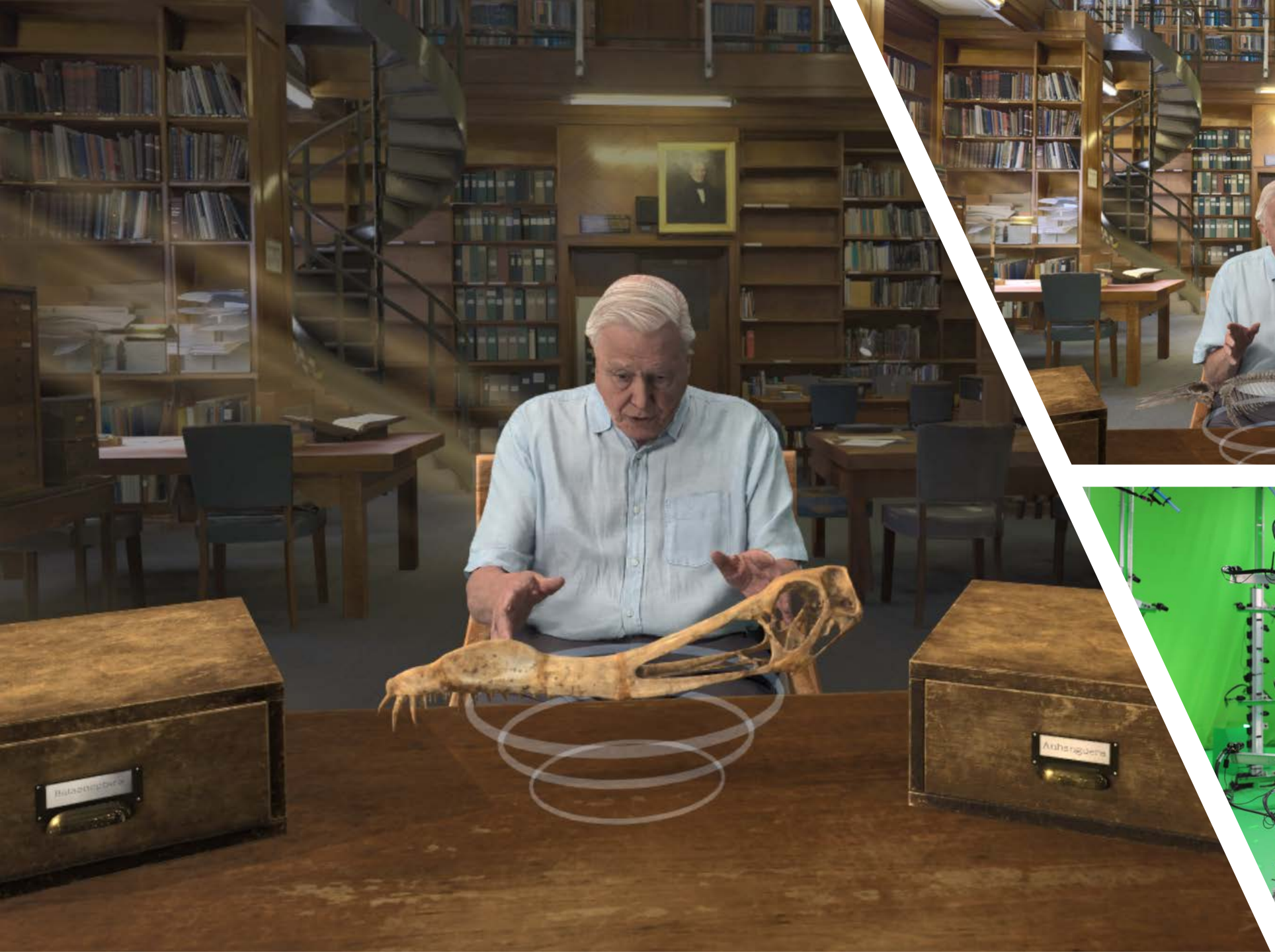


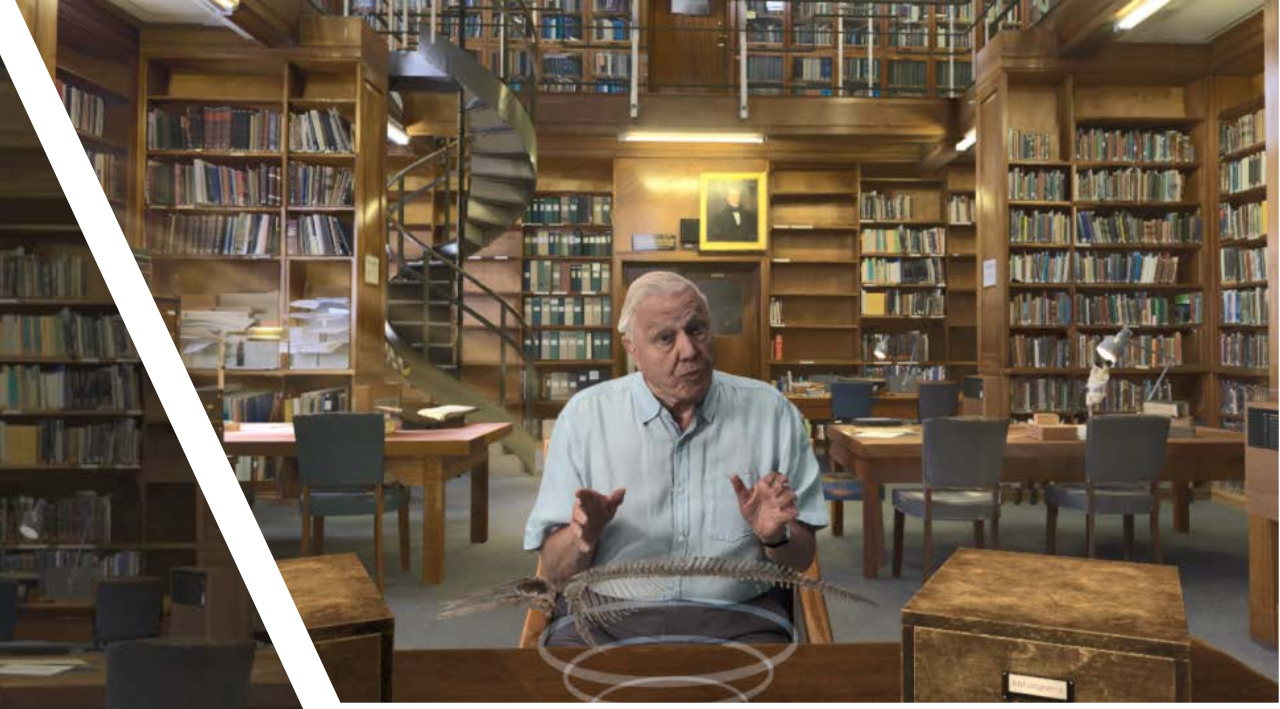
- Manage classroom workflow and mark homework using Microsoft Teams. Create lesson plans and share class notes with OneNote Class Notebook, which syncs with your LMS
- Connect regularly with peers to share best practices and lesson plans with a Professional learning community or team

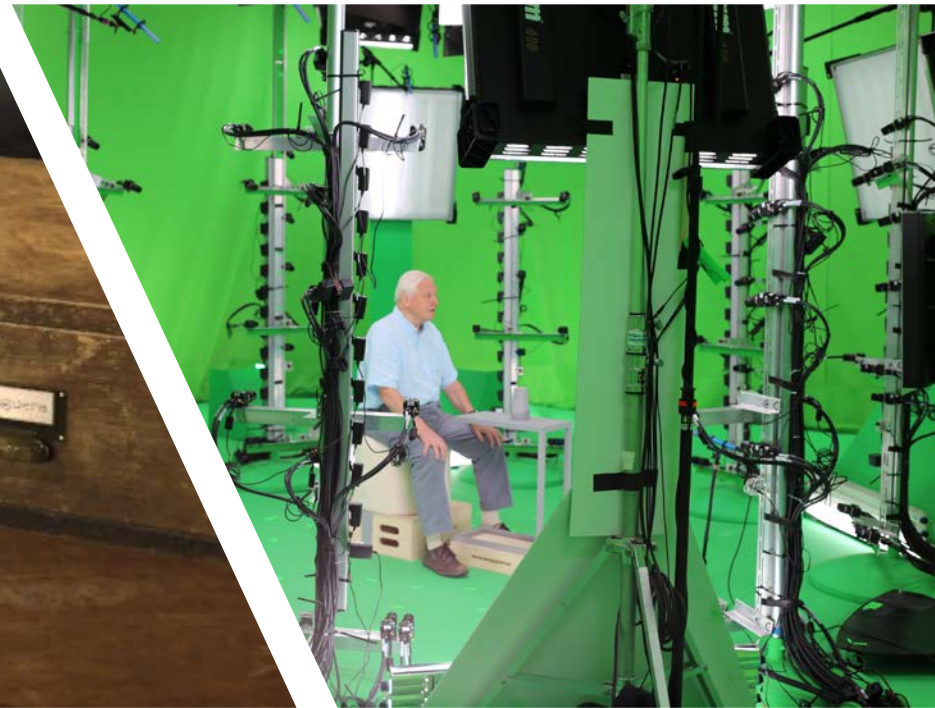
Improve collaboration and teamwork in the classroom and around the world

Microsoft Translator

- Communicate, collaborate and create in and out of class with Office, the top-requested software skill by employers
- Create collaborative classrooms that better engage students and provide continuous feedback to individual students with Microsoft Teams







TAKE THE PLUNGE
with Microsoft and BBC Earth!
Microsoft

A UK-wide focus on Digital Skills – by 2020

STEM and Computing Science

Get more young people active with CS

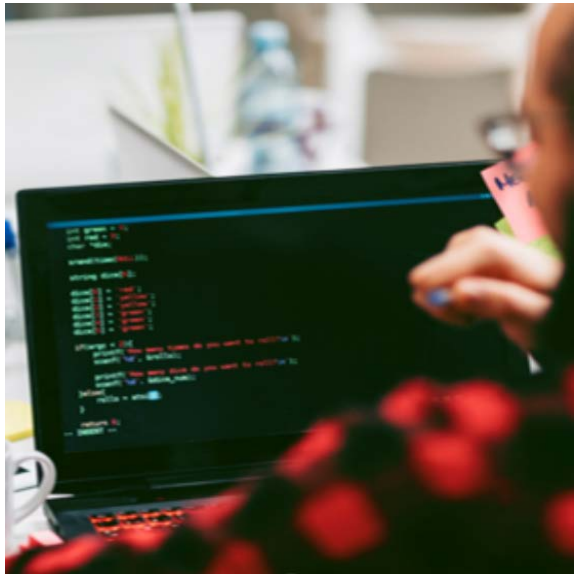
Engage 3 million young people in 3 years

Double # CS Grads and % who are women

Routes into tech: Apprenticeships

New Apprenticeship routes

100k Microsoft Apprenticeships



Keeping the workforce skilled

500k cloud heroes

Digital skills for 30k public servants

Through partnerships and Microsoft-led programmes

“The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.”
Mark Weiser

one final thought

Thank you ☺

Ian Fordham
Director of Education, Microsoft

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Microsoft