



Making Mixed Reality part of the classroom

Joke Palmkvist, Microsoft



Who is  
Joke Palmkvist?

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# Global Learning Connection – engage and discuss



Meet other classrooms  
from across town  
or across oceans!

November 5-6, 2019

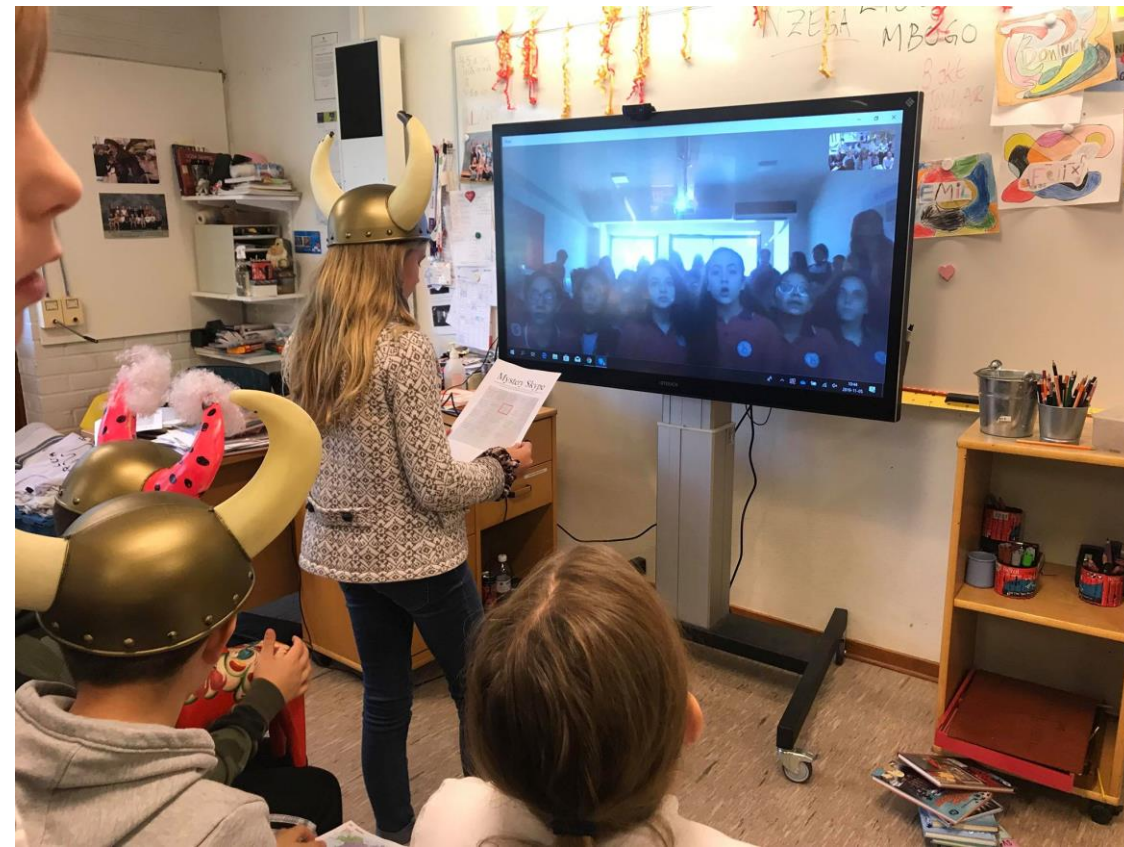
Microsoft Global  
Learning Connection

OPEN HEARTS. OPEN MINDS.



# What is AI?

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# Lexplore – Swedish innovation

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Lexplore

📞 KONTAKT

OM OSS

SÅ GÅR DET TILL

LÄRARRUMMET

REFERENSER

BLOGG

DEMO

## Så går det till

Medan eleven läser en kort text på en skärm spelas ögonrörelserna in med hjälp av en eye tracker som sitter längst ner på skärmen. Det tar bara några minuter för eleven att läsa texten och svara på de läsförståelsefrågor som kommer. Innan eleven är tillbaka på sin plats i klassrummet har ögonrörelserna analyserats och presenterats i resultatportalen.







"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

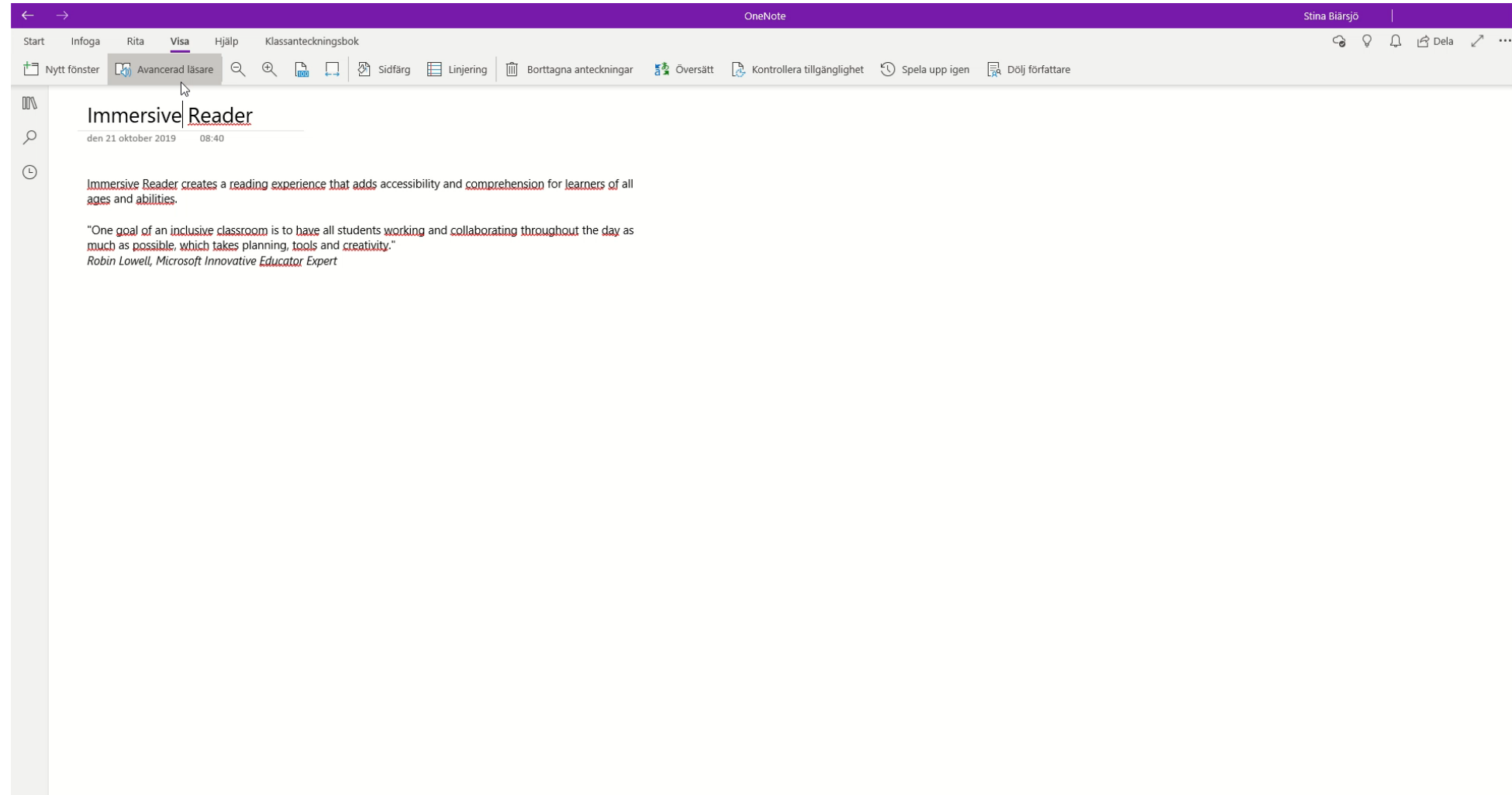
# Learning Tools

Built into Office 365 to improve reading and writing

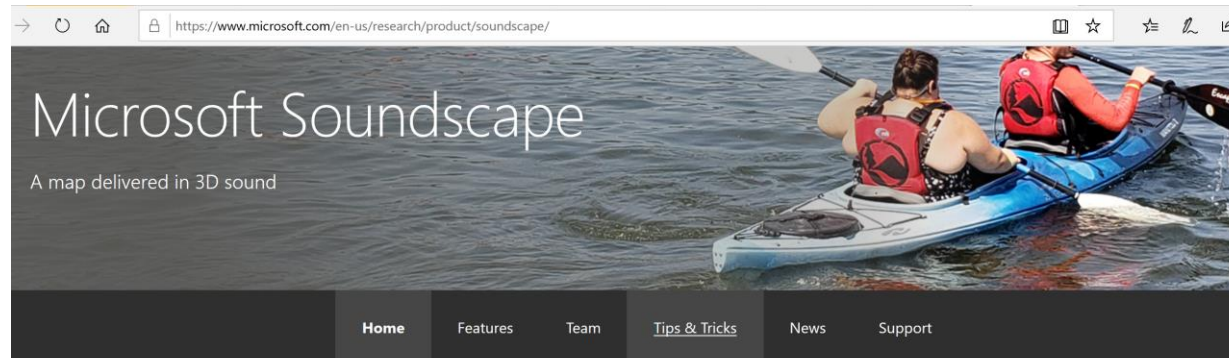


## Improve reading skills

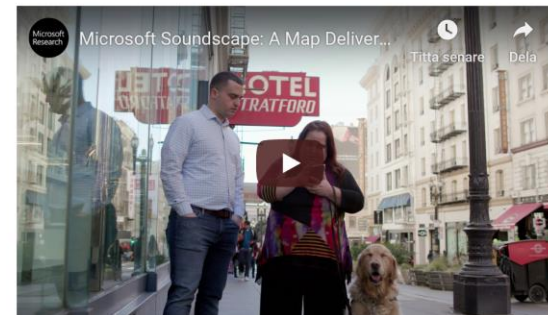
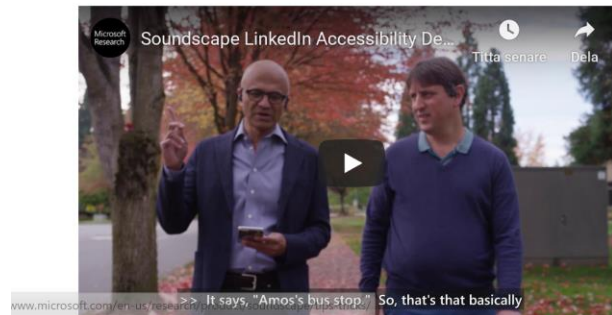
Learning Tools help to improve reading skills by assisting decoding, fluency, and comprehension.



# Microsoft Soundscape



[Get the Soundscape App >](#)





# About Soundscape



- Innovative audio-based technology to enable people, particularly those with blindness or low vision, to build a richer awareness of their surroundings, empowering them with confidence to explore.
- Soundscape uses 3D audio cues to enrich ambient awareness and provide a new way to relate to the environment.



Mixed Reality is Transforming Education

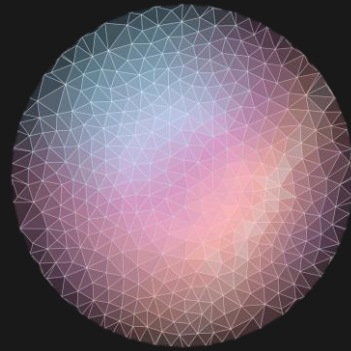
*"If you change the way you see  
the world, you can change the  
world you see"*

Satya Nadella









WHAT IS MIXED REALITY?

PHYSICAL WORLD

DIGITAL WORLD



MIXED REALITY SPECTRUM



PHYSICAL WORLD



DIGITAL WORLD

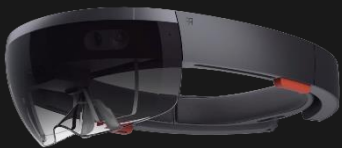


AUGMENTED REALITY

VIRTUAL REALITY

MIXED REALITY SPECTRUM

PHYSICAL WORLD



DIGITAL WORLD

AUGMENTED REALITY

VIRTUAL REALITY

MIXED REALITY SPECTRUM

# MR Learning Outcomes

- Peer-reviewed research suggests that when AR/MR is used in educational (K-12) settings that:
  - It increases achievement scores, learning efficiency, retention, experiential learning, and engagement
  - Increased spatial awareness, positive emotions, focus, attention, problem-solving, collaboration, confidence and motivation have been reported
  - Users state that they feel increased energy, flow, and that it creates a beneficial learning environment
- Currently, AR/MR has seen testing in science, arts, history, theater, and outdoor education



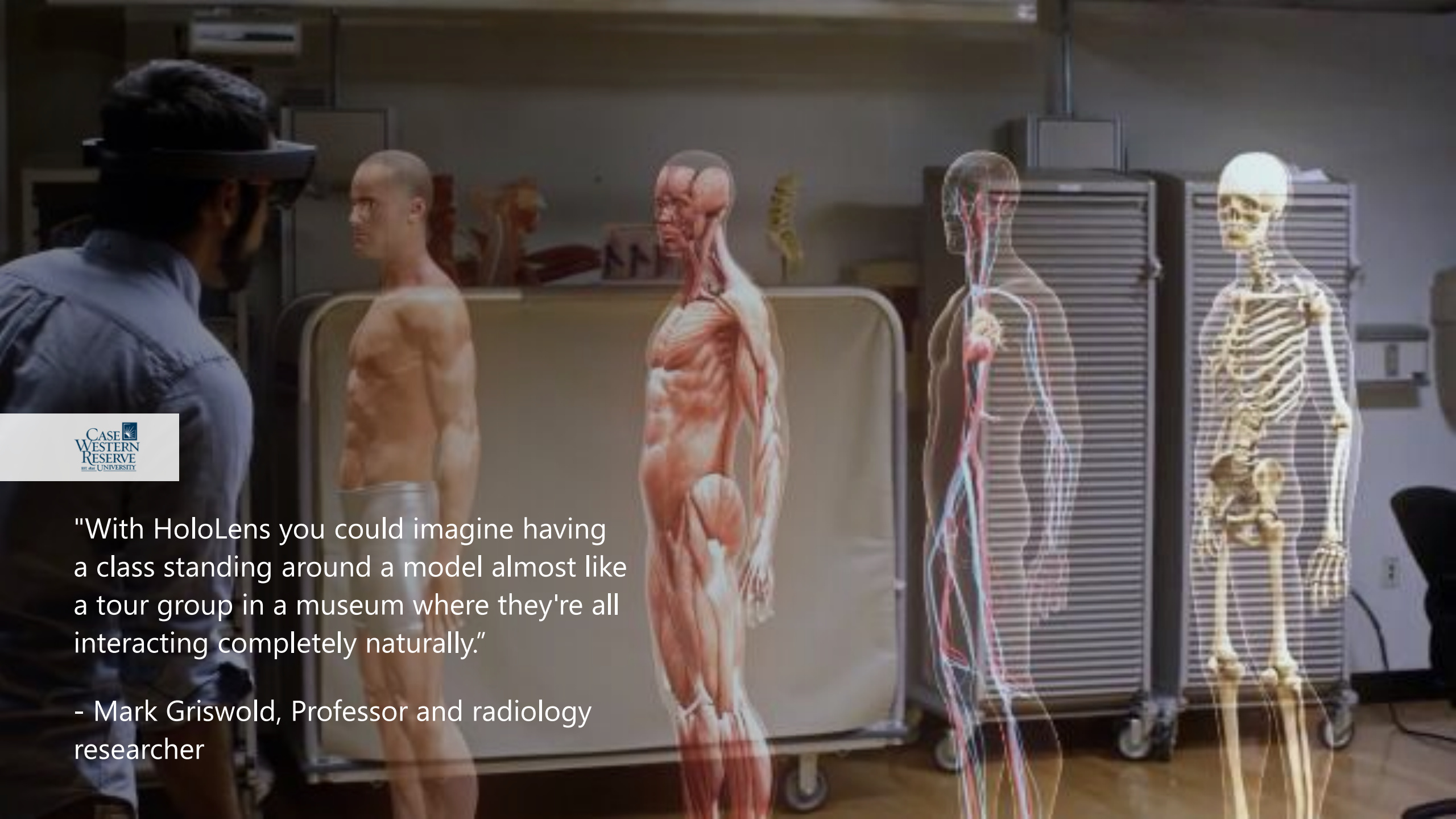




## Mixed Reality

Your real and digital worlds integrated, enhanced with holograms

- Integrates your real and digital worlds seamlessly
- Not constrained by size of 2D, rectangular displays
- Intuitive, natural interactions
- Digital content is wherever you need it

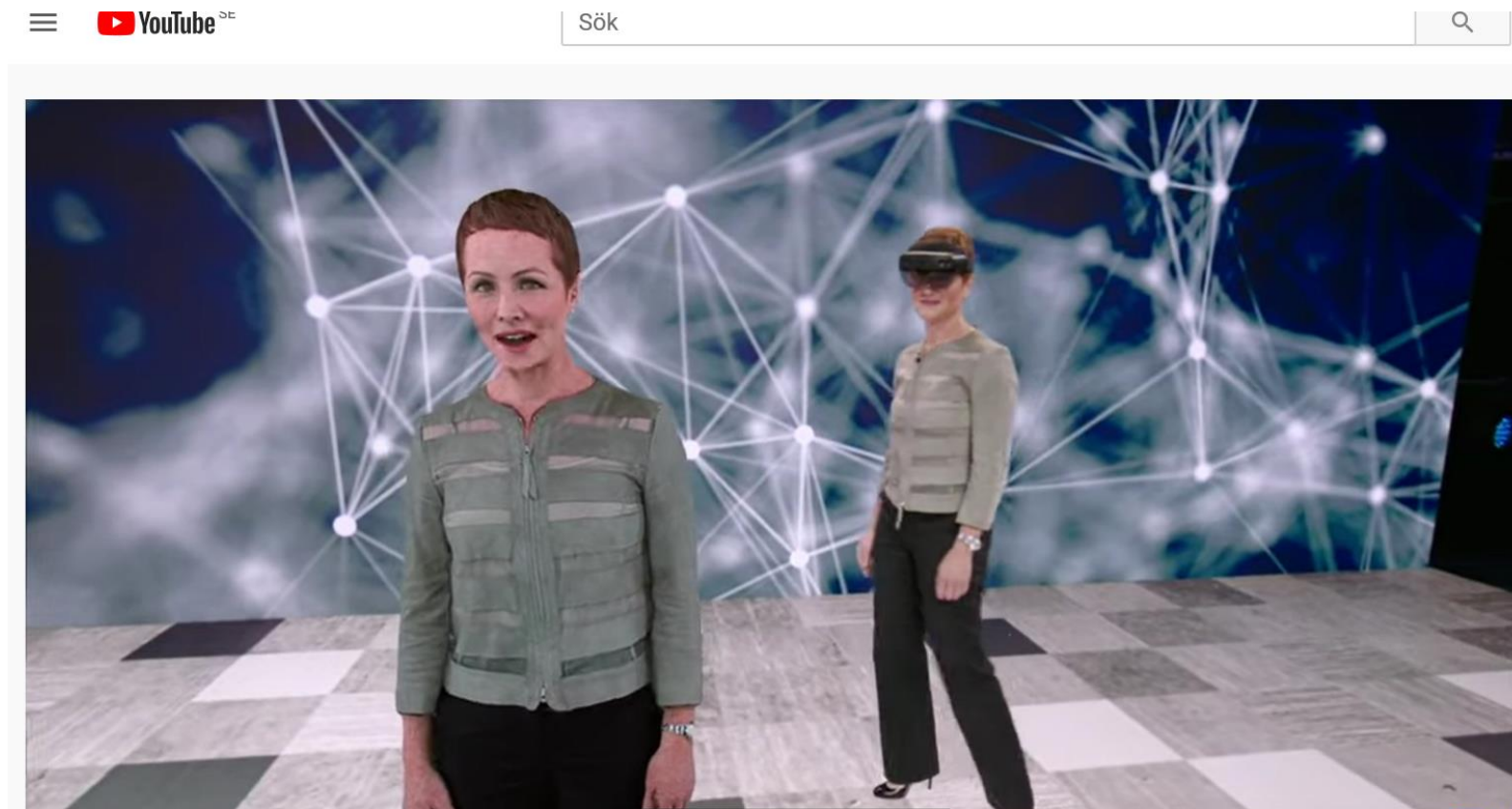


"With HoloLens you could imagine having a class standing around a model almost like a tour group in a museum where they're all interacting completely naturally."

- Mark Griswold, Professor and radiology researcher



# What if distance and language didn't matter?



# MIXED REALITY

## Schools

## Students

## Teachers

Integrate with existing  
compute environments

Help teachers  
improve  
learning  
outcomes

Work in groups  
or individually

Collaborate easily  
with other students  
and teachers

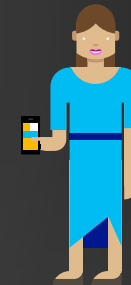
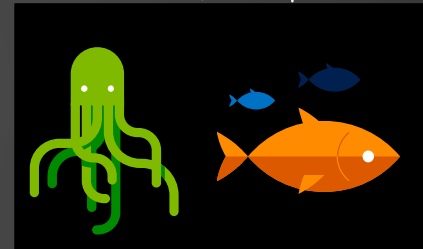
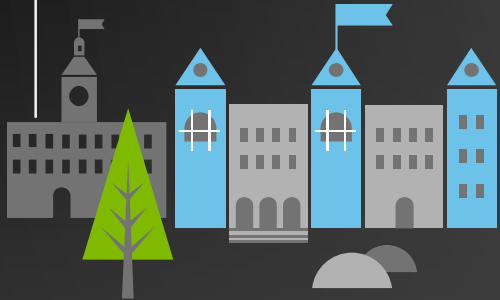
Use the newest  
tools and  
technologies

Inspire students  
and save time

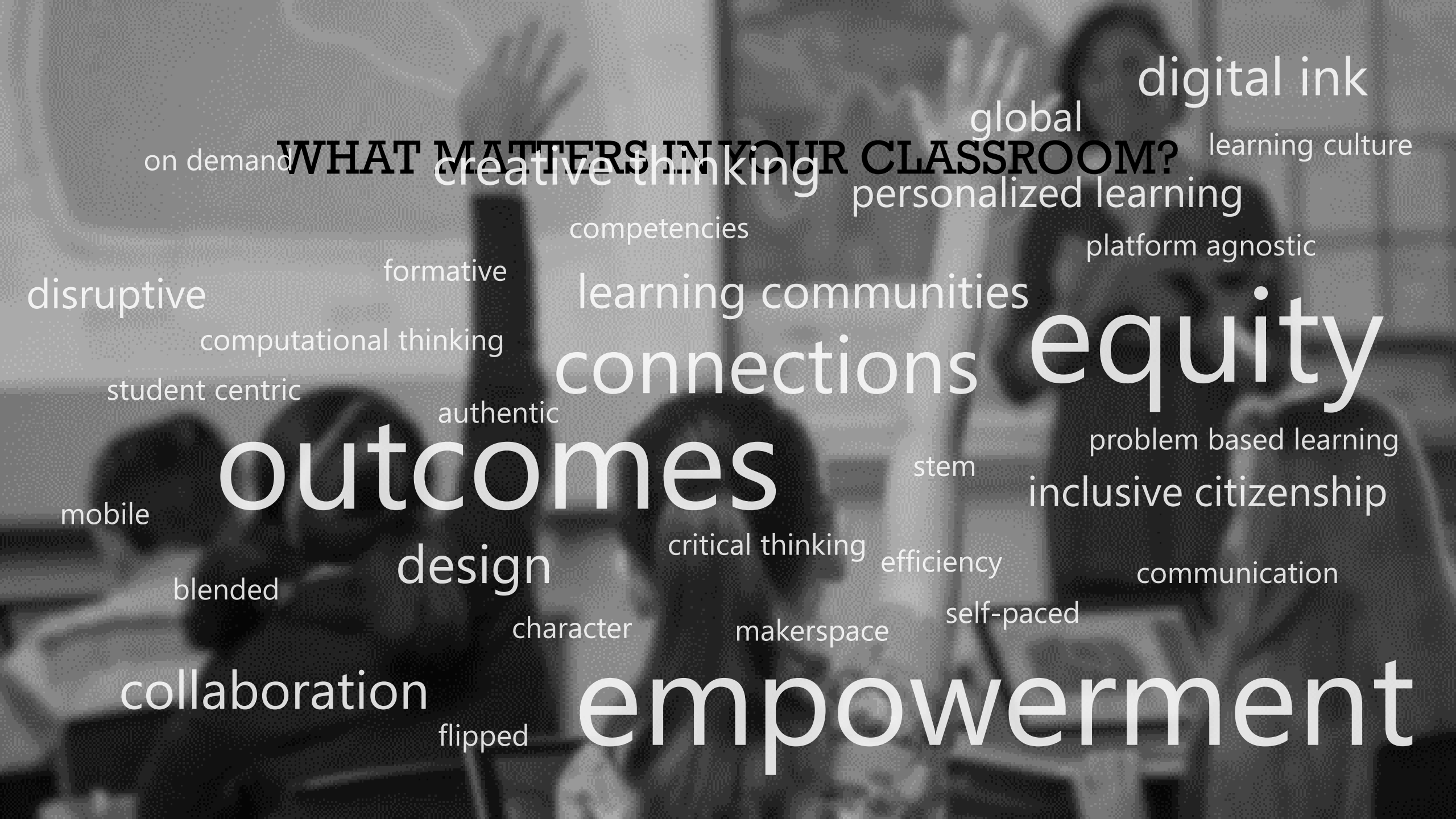
Teach kids  
across a wide  
range of  
learning  
abilities

Explore & get things  
done across all devices

Use a variety of teaching  
styles to reach all students

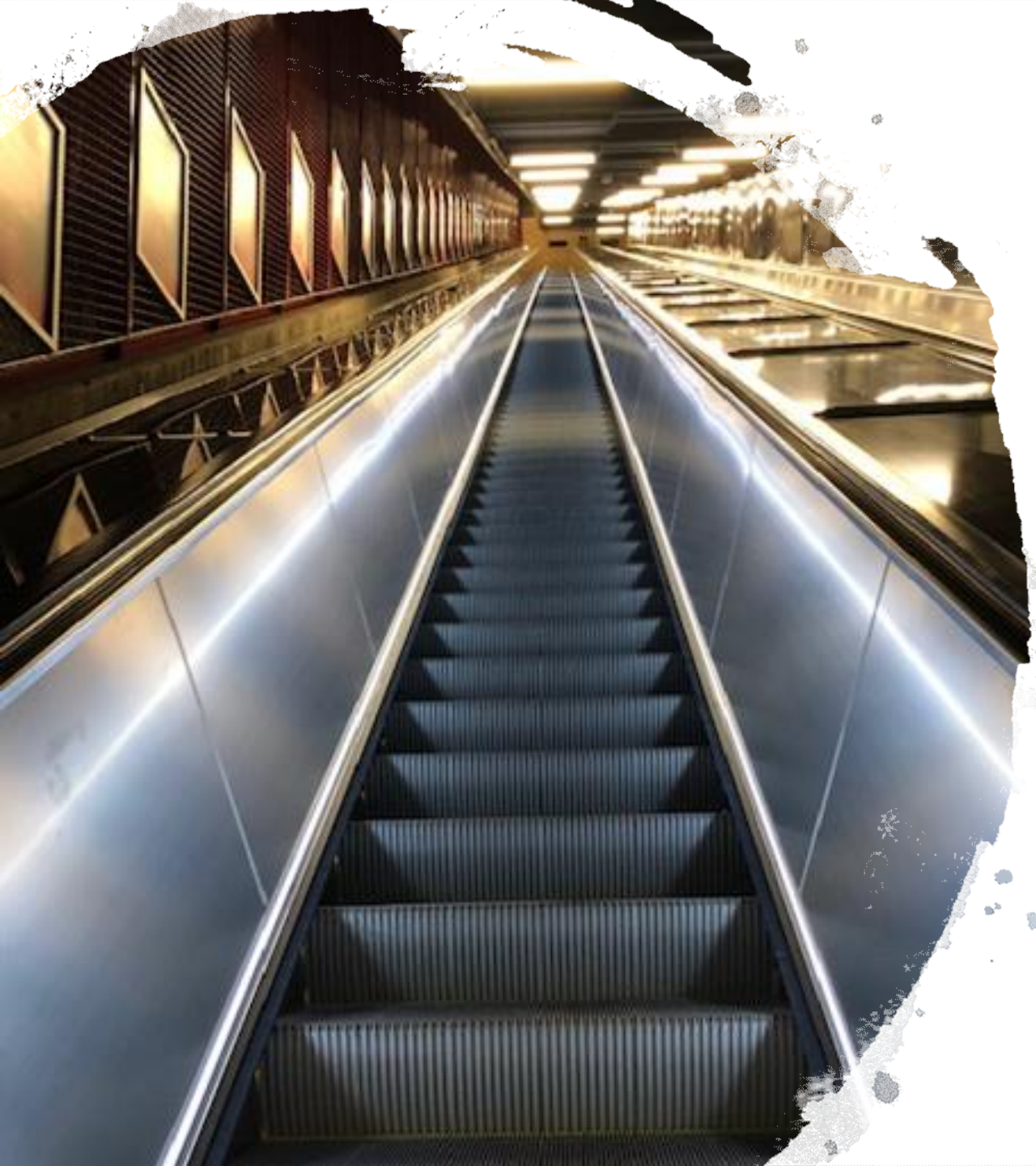






# WHAT MATTERS IN YOUR CLASSROOM?

digital ink  
global  
learning culture  
on demand  
creative thinking  
personalized learning  
competencies  
platform agnostic  
formative  
disruptive  
learning communities  
computational thinking  
equity  
student centric  
connections  
authentic  
outcomes  
problem based learning  
mobile  
inclusive citizenship  
blended  
design  
critical thinking  
efficiency  
communication  
character  
makerspace  
self-paced  
collaboration  
flipped  
empowerment



Stand and rest – or  
walk?