



PUBLIC SECTOR  
SUMMIT ONLINE

# Remote learning: Education in the cloud

Jude Sheeran

Head of Cloud Innovation

Europe, Middle East, and Africa

Amazon Web Services



# Primary and K12 test new models

**1.5 billion students**

out of school as of 8 April

“With the right data, and the right understanding of how people learn, we can leverage the recent developments in artificial intelligence to find out a great deal of value about the role that technology played in this **grand home schooling experiment.**”

— [Rose Luckin of EDUCATE at UCL](#)



**4 ways COVID-19 could change how we educate future generations**

**THE TIMES OF INDIA**

**COVID-19 crisis sheds light on the need for a new education model**

TNN | Posted on Monday, April 13, 2020

# Digital innovation in the cloud



Headquarters: London, UK

Employees: 22,000

## About Pearson:

Pearson is a global learning company operating in 70 countries. Pearson provides content, assessment and digital services to learners, educational institutions, employers, governments and other partners globally.

## Background

- Pearson is over 170 years old; a leader in education publishing who is working to transform to a digital education company
- While some of Pearson's products and services are in the cloud, many products and applications are still on premises

## Solution

- Pearson leverages AWS to improve its infrastructure, agility, performance, and security as well as to optimize costs
- Pearson also leverages Amazon Alexa in products like Pearson Revel to provide innovative new ways for students to learn and study

## Benefits

- Providing Pearson developers with greater agility and scale as they create new products
- Able to deliver a lower cost to internal developer partners
- Allow developers to release more frequently to production
- Better security for the end user (learners)

“AWS has been part of our journey to cloud before we knew we were on the journey to cloud... We're finding new value in Amazon in their ability to keep up with us and also to continue to challenge us and push us further.”

- Chris Jackson  
Director of Cloud Platforms

# Higher education responds to uncertainty

**PALATINATE**  
DURHAM'S INDEPENDENT STUDENT NEWSPAPER SINCE 1948

**EXCLUSIVE: University proposes online-only degrees as part of radical restructuring**

McKinsey  
& Company

**Coronavirus: How should US higher education plan for an uncertain future?**

**41% of higher ed presidents are unsure when their institution will reopen.**

The **top three areas** where long-term support is most needed:

- Financial health and operational planning
- Instructional technology development
- Student support services



# What we're seeing



**Mass migration of technologies and content to the cloud**



**Increased capacity among EdTechs, publishers, and faculty**



**Rapid creation of new platforms, apps, and content**

---

**Rapid modernization, cost management and training of faculty, staff and students**

# Boosting the student and teacher experience



Headquarters: London, UK

Employees: 75

## About Firefly Learning:

Firefly Learning is an online tool for teachers, students, and parents. It aims to create better outcomes through more flexible learning, allowing teachers to set work, students to access resources, and parents to track their children's progress.

## Background

Delivering its software on physical servers was proving ineffective for Firefly Learning

It wanted to offer its software as a service to speed-up onboarding and improve the user experience

## Solution

Through services such as Amazon RDS and AWS Business Support, Firefly ensures it delivers a consistent experience for teachers and students with minimal infrastructure management

## Benefits

- 99.99% uptime in the cloud
- Better security than on premises
- Same-day school onboarding
- Auto scaling for spiky loads

“ With faster deployment in the AWS Cloud, students can start using Firefly software the same day the school signs the contract. ”

- Simon Hay  
Co-Founder and CEO





# Mission critical infrastructure



# Using AWS to scale globally

## Background

- In thousands of classrooms, from South Africa to Sydney, teachers and students depend on Blackboard's holistic and integrated EdTech solutions
- As usage skyrocketed, the company found it more difficult to scale its business
- Blackboard's most popular applications were hosted in more than 30 data centers throughout the world

## Solution

- Blackboard leverages key storage and data services including Amazon EC2, Amazon RDS, Amazon ES, Elasticache, and Lambda

## Benefits

- Able to shut down over 20 data centers
- Focuses on providing value to its clients rather than managing its infrastructure
- More agile and is able to get products to market faster; Blackboard last year released Blackboard Data which leverages AWS to provide data-driven insights

# Blackboard®

Headquarters: Reston, Virginia USA

Employees: 2,500

### About Blackboard:

Blackboard is the largest education technology and services company in the world, serving millions of users in countries in every region around the globe

“ Teaching and learning on our global EdTech platform happens at any time, and our client community relies on us to provide solutions that are available 24/7.

”

- Reinhold Staudinger  
Chief Architect



Headquarters: Madrid, Spain

Employees: 3,000

### About Santillana:

Founded in 1960, Santillana is the leading textbook publishing group in Spain and Latin America with international presence in 22 countries, with Spain and Brazil as the main markets

Santillana has more than 28 million students worldwide using Santillana content and offers 300 apps with more than 400,000 downloads in 2018

# Improving the student journey through AWS

## Background

- When it was founded, Santillana wanted to scale quickly to meet market needs and was an early adopter of the cloud in EDU
- Santillana is running more than 50 solutions within their product portfolio across 22 countries
- Each of their products requires an intensive use of data and supporting complex multimedia content

## Solution

- By leveraging the cloud, Santillana is able to use auto-scaling, making them more cost-effective and agile
- Santillana uses solutions like Amazon Comprehend to analyze student data

## Benefits

- Able to stand up new infrastructure in hours rather than months
- Leverages the data they collect to continue to improve the student journey

“ Today with just one click I can implement thousands of servers. Day-to-day work is completely different. It’s easier when you are using cloud.” ”

- Iñaki Velez de Guevara  
Chief Technology Officer

# AWS Global Infrastructure

**24** Geographic regions

**76** Availability Zones

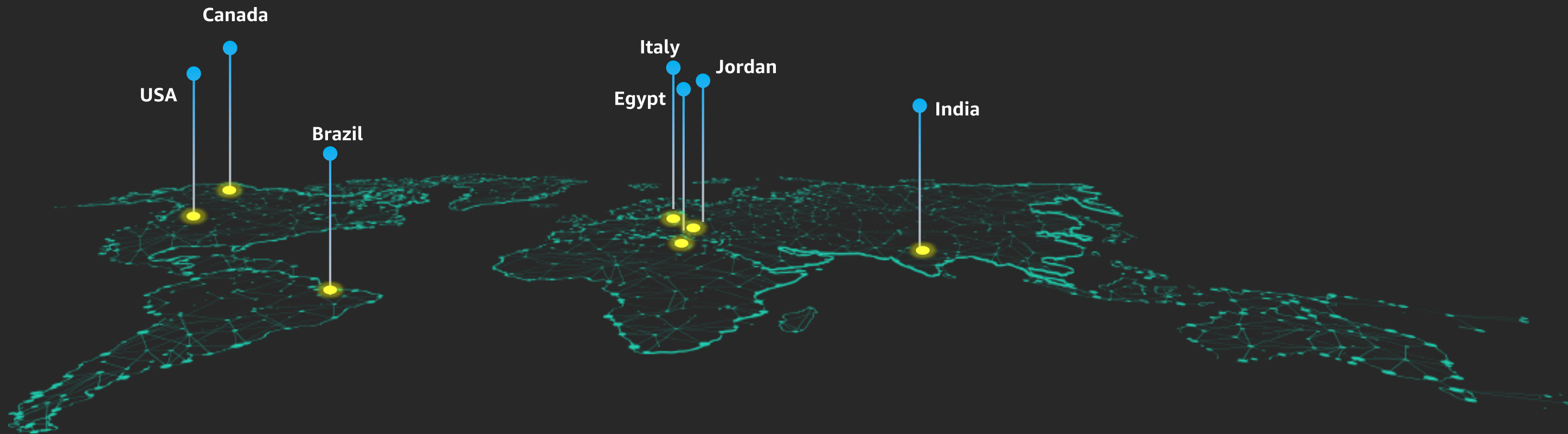
**216** Points of presence



● Regions  
● Coming Soon



# Providing speed, security, and scale globally



# Supporting education: Case studies



**The Jordanian Gov't** deployed a new learning platform working with local EdTech Mawdoo3 and AWS.

**35 million views of classes**  
**2 million students**



AWS supported Brazil's largest K12 system, **Somos Educação**, to extend online education.

**1.3 million**  
**students and faculty**



**Egyptian Ministry of Education** worked with CDSM **Thinqi** to provide remote access to Egyptian Knowledge Bank.

**7.3m page views in 5hr**  
**574,000 users**



# Supporting education: Case studies



In Italy, AWS worked with EdTech **bSmart** to provide virtual classrooms using audio- and video-calling.

**30% of schools  
conduct class online**



EdTech **Impartus** launched virtual classes at no cost. AWS has helped onboard 90 edu institutions.

**530,000 students  
32,000 teachers**



**Athabasca University** scaled remote access to faculty at home using Amazon WorkSpaces.

**180 staff  
across Alberta**



**University of Arizona** adopted Amazon Connect to enable staff to receive work calls remotely.

**“Lifesaver for the U of A”  
- Susan Legg, Exec Dir IT**

# Learn to Build Cloud Fluency in Your Organization

Resources created by the experts at AWS to help you build the skills you need



Cost Savings  
(TCO)



Staff  
Productivity



Operational  
Resilience



Overall  
Agility

Be ready for global cloud transformation with comprehensive skill development



Digital Training



Classroom Training



AWS Certification



Talent Pipeline

Visit <https://aws.amazon/training>

# Training and upskilling faculty, staff, and students



---

**Amazon's global initiative to bring cloud content and resources to students and educators around the world**

**No-cost content** on cloud, artificial intelligence, cybersecurity, etc.

No-cost resources for **educators and students** worldwide



---

**Classroom and online training for online certifications on cloud skills**

Designed and delivered by AWS experts and certified instructors, validated through **11 industry-leading AWS certifications**

**600+ courses** now available online



---

**Empowering higher education institutions globally to prepare students for industry-recognized certifications.**

**Ready-to-teach curriculum** allows students to build skills aligned with **AWS certification**.

Complimentary **learning and support** for instructor

# Solutions to support remote learning



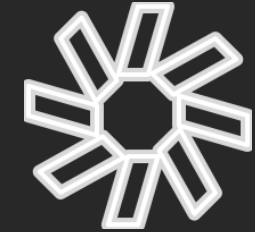
**Remote desktops for employees**  
(Amazon WorkSpaces)



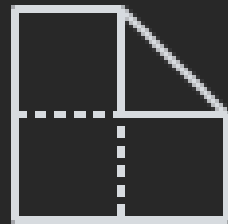
**Managed applications for remote learning**  
(Amazon AppStream 2.0)



**Virtual contact and support**  
(Amazon Connect)



**Remote communication and collaboration**  
(Amazon Chime)



**Content storage and collaboration**  
(Amazon WorkDocs)



**Secure and scalable remote access**  
(AWS Client VPN)

# Where to find support and learn more

## Day One Blog

[blog.aboutamazon.com](https://blog.aboutamazon.com)



Company news

### Seeking solutions during the COVID-19 crisis



Company news

### Supporting teachers' transition to remote learning with no-cost resources

AWS Educate mobilizes a global network to support educators as they migrate to virtual lessons.

## AWS Public Sector Blog

[aws.amazon.com/blogs/publicsector](https://aws.amazon.com/blogs/publicsector)

### Empowering education with critical infrastructure for remote learning and work

by Paul Grist | on 14 APR 2020 | in [AWS Partner Network](#), [Best Practices](#), [Customer Solutions](#), [EdTechs](#), [Education](#), [Higher Education](#), [K12](#), [Public Sector](#), [Public Sector Partners](#) | [Permalink](#) | [Comments](#) | [Share](#)



### Moving to virtual classrooms: Here's how EdTechs can help

by Kim Majerus | on 13 APR 2020 | in [EdTechs](#), [Education](#), [Public Sector](#), [Thought Leadership](#) | [Permalink](#) | [Comments](#) | [Share](#)

### How to build a chatbot for your school in less than an hour

by Brooke Gleason | on 08 APR 2020 | in [Alexa](#), [Best Practices](#), [Education](#), [Public Sector](#), [Technical How-to](#) | [Permalink](#) | [Comments](#) | [Share](#)

## AWS education site

[aws.amazon.com/education](https://aws.amazon.com/education)

### Cloud Computing for Education

As you explore ways to shift to remote learning and working, AWS has resources to help you today.

[Request Consultation](#)

During this unprecedented time of temporary and sustained school closings, many of our customers are reaching out for help moving more learning and working online. To help support you, see below for commonly requested resources:

- If you need help to scale up your on-premises applications by migrating them to the cloud, please contact your AWS Account Manager, or if this is during business hours, use the click-to-chat service on this page.



Increasing Access to Education with Computer Games



# Thank you!

Jude Sheeran

[linkedin.com/in/judesheeran](https://www.linkedin.com/in/judesheeran)