



## **EDITORS' NOTE**

For the majority of the world, 2021 started much as 2020 ended – with ongoing disruption. While the rollout of a vaccine slowly moves us towards the resumption of in-person schooling and working, the EdTech industry continues business online. January saw one of the largest EdTech events, Bett, move from the cavernous Excel Center in London to a fully digital offering. The Global EdTech Startup Awards did the same, culminating its year-long search for the best and brightest in EdTech in a live-streamed finale.

Whatever the event, doing it digitally is not the same as being in the room. That's why, in this issue of EdTech Insights, we wanted to bring you reports from these shows and awards, pick up some tips for what worked along the way and share what's being learned from EdTech's response to COVID-19.

BETT is always a key event in the EdTech calendar, particularly here in the UK, and we made sure to bring you a full slate of coverage from this year's **BETTFEST** event.

BETSY CORCORAN has been on the frontlines of EdTech for many years – she is the founder of EdSurge and an advisor to EdTech Publik. Betsy served as a judge for this year's GESAWARDS (along with EdTech Publik's Nathan Martin) and provides us with her own take on the cohort of 2020 winners. We also interviewed Chile-based track winner, PLEIQ, an impressive start-up using AR to support early-childhood education.

ISTE is one of the more senior convenors of educators working in technology. Their hard work to make a successful shift to digital (even before COVID-19) paid off in an impressive virtual event. We spoke to Chief Learning Officer, Joseph South, about his top tips for making digital events work.

The team at Oriel Square recently worked with CAMBRIDGE PARTNERSHIP FOR EDUCATION and EDUCATE VENTURES to produce their report about the impact of the pandemic on the UK's education system. Hannie brings you a summary of the key findings and what they mean for EdTech.

This is the third issue of EdTech Insights. We'll be back soon with more interviews, insight and analysis. Drop us a line to get involved or sign-up to join the EdTech Insights community.

THE TEAMS AT ORIEL SQUARE AND EDTECH PUBLIK

## N FOCUS... BEST BITS OF BETTFEST

The trip to London's Excel for the annual BETT show is a familiar ritual to everyone involved in education. This year, of course, was different. Twitter was filled with nostalgic throwbacks to the dancing robots and air-guitar contests of years gone by. So, how did the online version – BettFest – turn out?

Here, we bring you highlights and key takeaways from Oriel Square's BettFest experiences.

#### WHERE NEXT FOR EDTECH?

A year of such great change was bound to lead to some hard lessons being learned, and some tipping points being reached.

Implementing scalable and sustainable change: Having seen the benefits of a more independent learning model, educators will develop new and more effective models of blended learning, say Amy Hollier of HoW College, EdTech UK Chair Ty Goddard, United Learning's Bruce Wilson and Headteacher Sarah Morgan.

One area where these new models need speedy development is in the social aspects of learning. These social aspects are by no means cancelled out by what UCL call 'connected learning' using technology, and in order to facilitate them, teachers need to do things differently.

**EDUCATION IS FUNDAMENTALLY A SOCIAL ACTIVITY - DR JOHN COLLICK** 

The classroom is a content-rich, vibrant learning hub where students develop social skills and thrive through being part of a community, argued futurologist <u>Dr John</u> <u>Collick</u>. The classroom itself is a supportive environment, but some purely-EdTech solutions have missed out key social components such as social experience, authenticity and a focus on skills.

Most parents and teachers would tell you that online learning is better when delivered by someone they know in a familiar setting. This suggests that an effective hybrid model has to prioritise authenticity and familiarity, as well as being able to operate at all points between in-school and at-home learning.

#### ADDRESSING EDUCATION INEQUALITIES

Education Strategies for a Fairer World focused on another big area of potential for the EdTech industry: inequalities and how to bridge them. It looked at the rural/urban divide globally, including in developed economies. In some regions of the UK, for example, teachers had to deliver and collect homework because of a lack of connectivity, reminding us that this divide can also be close to home.

LESS THAN 20% OF THE GLOBAL POPULATION HAS ACCESS TO BROADBAND, AND LESS THAN HALF HAVE ACCESS TO ANY FIXED LINE INTERNET

















A flurry of recent research aims to share effective ways of bridging this divide. For example, this guidance note from the <u>Asian Development Bank</u>, or <u>the report</u> we worked on for Cambridge Partnership for Education and EDUCATE <u>Ventures</u> (see p6) – both discuss key contingencies to help develop the future of education.

### THE ROLE OF 'CONNECTED LEARNING'

The way forward for technology: Making waves in policy, the EdTech APPG session shared initial thoughts from the upcoming report, 'Lessons from Lockdown'. APPG members, including former Education Secretary Jim Knight, fielded often-challenging and impassioned questions from a large audience of educators and education industry figures.

Agreement amongst the controversy: Pedagogy is more important than delivery or format, but decent broadband and a usable laptop are often preconditions for access to what Professor Rose Luckin refers to as 'connected

learning' (preferable to 'remote' or 'distance' because it highlights the purpose of the technology rather than the barrier it is seeking to overcome).

## KEY TAKEAWAY

'Reimagining 21 st century education': The irrepressible Sir Anthony Seldon made the case for opportunities to rethink our education system in order to repair long-term damage wrought by the pandemic.

As an end-note, his call for educators to use technology, particularly highly-promising machine learning or artificial intelligence services, to help people learn in a human way, rather than a machinelike way, seems fitting.

USE TECHNOLOGY TO HELP PEOPLE LEARN IN A **HUMAN WAY. RATHER THAN A MACHINE-LIKE WAY - SIR ANTHONY SELDON** 

## IN FOCUS... **GESAWARDS 2020**

Pitchfests or 'awards' programmes for start-ups are cauldrons of inspiration for entrepreneurs. Over the course of a few hours, you get a glimpse of the wide range of ideas brewing in other entrepreneurs' heads. Some are clearly compelling; others challenge the status quo, but may not yet have a viable path forward. Although you don't need anyone's permission to start a company, validation from others in the industry that you're charting a promising path helps.



Betsy Corcoran is a writer, speaker and innovator who brings education's best ideas to life. In 2011, she co-founded EdSurge which rapidly became the leading information hub for teachers, entrepreneurs and school leaders with a commitment to EdTech.

#### WHY IT MATTERS

The Global EdTech Startup Awards (GESAwards), hosted by Israel's MindCET, has grown over the past seven years into a rich melting pot of ideas from education entrepreneurs around the world. A few years ago, it was estimated that there might have been about 5,000 viable education technology companies across the world; this year alone, the GESAwards received 95 I entries from entrepreneurs in 104 countries. Eighty percent of the entries were either pre-Seed or Seed stage companies. This year, an impressive 19.3 percent of the entries were based in Africa.

The winners were announced in January 2021 in an online session; in years past (and perhaps future) the

finalists are showcased at London's Bett show. Since the process takes approximately nine months, with regional semifinals in about 18 cities around the world, entrepreneurs should take note that applications for the 202 I event have just opened up and are due by August.

#### THE JUDGING CRITERIA

Judging criteria are centred around five key points:

- demonstrating a clear 'pain point' in the market;
- providing an innovative pedagogical approach;
- delivering an outstanding user experience;
- showing potential for growth;
- having a sustainable business model.

The elusive and missing criteria, of course, is being able to clearly demonstrate the product's efficacy. So far, efforts to judge this are still emerging. In particular, as we can't quantify 'what works', having judges that represent the users – notably students and teachers – also seems important. Despite judging difficulties, the nine start-ups identified as winners offer compelling products that lean heavily on technology to reach a goal.

### **2020 WINNERS**

- Slang app: overall winner (don't miss our interview with Slang's co-founder in the next issue of EdTech Insights!)
- Key2Enable: First runner up
- **Bookful**: Second runner up
- Pearprogramming: popular vote













2





There were also five 2020 speciality tracks with winners in each category:

- PleIQ: EdTech Post COVID-19 track winner (see our interview with PleIQ on pp. 3-5)
- Centrica: That's Geography track winner
- Movva: School Dropouts track winner
- Menti.io: R&D Innovation track winner
- Shmonster: Learn & Connect track winner

Slang is the flagship product of start-up Lengio Corporation, which was founded by MIT students -Diego Villegas and Kamran Khan. Although there is an abundance of organisations and technology to teach general language learners, Diego knew that many nonnative English speakers struggle with the terms and jargon specific to their field. Kamran brought his expertise in machine learning and natural language processing to the problem. Since starting in 2013, Slang has built a robust curriculum and set of tools to help professionals in areas as diverse as finance, transportation and hospitality to learn vocabulary specific to their field (Seed stage).

Key2Enable helps people with motor and intellectual disabilities learn skills to help them develop independence. Founders William Oliveira, J. Rubinger and Tifany Espindola built the organisation based on assistive projects they developed in Brazil in 2015. On the top of their product list is the Key-X keyboard a radically redesigned computer interface that has II touch-sensitive keys that can be triggered with just the blink of an eye (PreSeed stage).

Bookful is a project from Inception, which launched in late 2016 to deliver immersive experiences through virtual and augmented reality across a wide range of platforms. Bookful partners with traditional publishers, with an emphasis on early readers, to integrate augmented reality into books and make pictures 'jump' off the page (Late Stage C/C+).

Pearprogramming was founded in 2020 by graduates of the University of Osnabruck. It supports teachers in developing high-quality computer science teaching for secondary school students and uses a game-based approach. Students 'start up' a virtual IT company as part of the story and expand it by solving a variety of tasks (Seed stage).

#### **2020 TRACK WINNERS**

which Centrica developed ArtCentric, makes high-quality art - notably the collection of the Uffizi Gallery – available to students worldwide (Early stage A/B).

Movva developed Nudgebots to change behaviour and inform good decision making. With the goal of improving learning, the app sends weekly nudges with information and suggested activities for behaviour change, encouraging school principals, teachers and parents to become more engaged in school life (Bootstrapped).

Menti.io uses artificial intelligence technology to analyse online discussions so that teachers (or other group leaders) can recognise who in the class is understanding and participating in the dialogue (Early stage A/B found).

Shmonster makes apps including PuppetMaster, Ghost Story and FishyPaint, that enable children (including toddlers) turn their artwork into animated videos (Bootstrapped).

PleiQ develops a range of educational products for early learners at home and school that use augmented reality to support playful learning and foster multiple intelligences (Seed stage). Read our interview with PleIQ co-founder on pp. 3-5.

## IN FOCUS... GESAWARD WINNER PLEIQ

PleIQ (pronounced play-IQ) is a set of cubes and a mobile app that combine the benefits of traditional and digital games by reinventing the way young children learn letters, numbers and symbols. Through the magic of augmented reality (AR), the Chilean-based EdTech startup is reimagining early childhood education with a range of critically acclaimed smart toys.



CEO and Co-founder Edison Duran explains why AR is uniquely suited for supporting early childhood learning, its potential to help bridge the digital learning gap and why the responsible use of technology is baked into PleIQ's digital DNA.

### WHY IT MATTERS

Countless EdTech companies have played their part in supporting teachers, parents and students during school closures. PleIQ went above and beyond, offering free resources and easily accessible content for educators around the world. PleIQ's free resources were used in 43 countries and they provided training webinars for 4,000 teachers.

In January 2021, PleIQ earned recognition by winning the Global EdTech Startup Awards (GESA) COVID Response track, beating more than 300 entrants. Now, PleIQ looks to expand its footprint from South America, expanding access and reaching a wider audience with quality early childhood education.













3





### Q&A: Edison Duran, CEO & CO-FOUNDER OF PLEIQ

Back in 2014, Edison and his co-founder saw a huge opportunity for a smart intelligence toy that would foster foundational skills among preschool children. PleIQ's idea was selected from among 1,000 companies for the government's Start-Up Chile programme, helping to attract tech entrepreneurs to the country and provide seed funding to kickstart ideas. From there, Edison and his co-founder raised pre-seed capital allowing them to create a smart educational toy using augmented reality.

#### Why early childhood education?

At this early age, the human brain goes through an intense transformation. The Centre on the Developing Child at Harvard has research showing that between the ages of three and five, 80% of the human brain is formed. So, it's essential that we as a society provide high-quality early learning experiences that will form the building blocks for future learning. These highquality early learning experiences make a difference, so we want to help create learning experiences that can benefit these younger students.

IT'S ESSENTIAL THAT WE AS A SOCIETY PROVIDE HIGH-QUALITY EARLY LEARNING **EXPERIENCES THAT WILL FORM THE BUILDING BLOCKS FOR FUTURE LEARNING.** 

### Why augmented reality?

One of the advantages of using AR is that it enhances physical resources without taking children away from their physical environment. As the name suggests, it augments their physical reality to allow a level of autonomous learning that would otherwise not be possible.

### AR ALLOWS A LEVEL OF AUTONOMOUS **LEARNING THAT WOULD OTHERWISE NOT BE** POSSIBLE.

For example, we are working with 3-6 year-olds, many of whom cannot yet read. If they don't have a parent or teacher with them, it's hard to use books or worksheets that require some form of instruction. Using AR, we can make the books 'talk' to students, guide them through the learning process and enable them to use physical learning resources independently.

#### How do the cubes and the app work together?

The set of alphabet and number cubes was our first product. We decided to take one of the most traditional and universally-used resources

for preschoolers and adapt it for an AR learning experience. We then used a framework based on the research of Howard Gardner's Theory of Multiple Intelligences and David Rose's Universal Design for Learning to build the app.

The different sides of the cubes trigger different AR learning experiences using the device's camera to scan them. The app creates a hub of learning experiences that are mapped to curriculum objectives and that evolve and adapt to the user's interests. It provides realtime assessment and evidence of learning outcomes.

### How do parents and teachers use technology responsibly with younger learners?

PleIQ promotes the responsible use of smart devices. One of the main concerns for parents is that their children are spending too much time on their screens - we all know that we need children to explore the physical world.

### AFTER 45 MINUTES OF SCREEN TIME PLEIQ WILL BLOCK THE USER.

At PleIQ, we limit the amount of time that the app provides learning activities to 45 minutes each day. This is based on the American Pediatric Society's recommendation that children in this age range shouldn't be exposed to more than one hour of screen time a day.

#### What is your business model?

We have two main markets. First, we partner with educational publishers to create smartbooks, using our content to enhance their existing products. This allows us to focus on technology development.

Second, we create a licensing model for schools in which we provide everything they need to transform their classroom into a smart classroom. We provide a set of resources including cubes, different books and a platform that integrates the students' learning data.

For low-income schools that don't have access to devices, we provide a multi-year contract that includes the devices, allowing schools to start using technology to achieve learning outcomes.

### How did PleIQ respond to COVID?

COVID-19 allowed people to rethink education. Educators and the learning community realised very quickly that teaching through online conferencing platforms just wasn't effective at engaging their students.

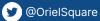
From the very beginning, we tried to create resources to help teachers and parents. We created print-at-home

















resources, physical learning activities, as well as access to free AR learning activities. Our free material was used in 43 countries around the world.

### FROM THE VERY BEGINNING, WE TRIED TO **CREATE RESOURCES TO HELP TEACHERS AND** PARENTS.

We also wanted to support teachers, because, unlike in the US, using technology in the classroom is a luxury here. Some teachers didn't even know how to download an app. We know that teachers don't have much time to learn how to use these tools, so we ran 40 free training webinars that taught them how to use the free resources. We ended up reaching more than 4,000 teachers.

#### What was the feedback from teachers?

The teachers we worked with saw the power of using this technology, especially for students who have special educational needs. When students started to create their own cubes and experiences, teachers saw progress from students that otherwise might have been left behind.

Our users achieved more than half a million pedagogical objectives during the pandemic. I think that's an impressive impact when these students could otherwise have been at home, unsure of how to engage with activities without the help of an adult.

## How do you see the **FUTURE OF LEARNING?**

In a few years, there may be more children with access to smart devices than to formal education. While this poses a huge problem, it is also an opportunity to transform smart devices into an important educational tool.

We also know that broadband access is increasing. Using smart devices as learning tools could help reduce the gap between those children who have access to a formal education early on, and those who don't.

We think that the best way of reducing the learning gap in this age range is by helping children to learn through play. Augmented reality can help by enhancing physical surroundings to support learning.

If we provide these tools and empower teachers to use them effectively, we can trigger a learning revolution for early childhood education.

**OUR USERS ACHIEVED MORE THAN HALF A** MILLION PEDAGOGICAL OBJECTIVES DURING THE PANDEMIC.

# IN FOCUS... RUNNING A VIRTUAL EDTECH **EVENT: FOUR LESSONS** FROM JOSEPH SOUTH

Joseph South, Chief Learning Officer, International Society for Technology in Education (ISTE)

Founded in 1979, ISTE is one of the pioneer global education communities focused on the use of technology. Its annual conference has long been one of the must-attend events in the EdTech calendar.

### WHY IT MATTERS

Over the last few years, ISTE has been on a journey to ensure that its community and digital offerings are able to meet the needs of educators and remain competitive in a crowded EdTech landscape. COVID-19 accelerated that transition and ISTE has responded with short digital micro-credentials and courses, global support and a fully digital version of its annual conference.

On the heels of that well-received event, we caught up with Chief Learning Officer Joseph South to learn what made ISTE's virtual conference a success.

I. Keep it human: Most events that went online prioritised the delivery of content - we knew that people didn't gather for content, they gathered for networking. When ISTE went online, we focused on the social experience of being at ISTE. We started with the social aspect. When you logged in, for example, you were given smart recommendations of people to meet. Second, we made it very easy for people to meet. We coded a custom platform that made it easy for people to meet and connect and we encouraged people to have side conversations during the main event.

### WE KNEW THAT PEOPLE DIDN'T GATHER FOR CONTENT, THEY GATHERED FOR NETWORKING.

2. Not all sessions are equal: Saying, everyone should come to everything, is a huge mistake. At ISTE, we created a variety of virtual events: large events (i.e. keynotes) as well as events with seat limits that were interactive or hands-on. Within the sessions, people could ask audio questions and see who was attending each presentation; this way you could actually see the people who were there with you. People said it felt like they were in the room.

















3. Make it fun: When logged on, each attendee joined a team (i.e. Octopus, Dolphin). These teams had light gamification (think, the houses in Harry Potter). It was amazing how invested people became in their team stats, they really cared about getting involved.

PEOPLE SAID IT FELT LIKE THEY WERE IN THE ROOM.

4. Don't forget the vendors: We knew that we had to create meaningful ways for solution partners to engage the audience. The obstacle isn't that people don't want to learn about the products on offer, it's where and how they find out about them. People don't want to experience a new product via a static booth, so we encouraged vendors to have educators present, and brought them into the conference experience.

THE OBSTACLE ISN'T THAT PEOPLE DON'T WANT TO LEARN ABOUT THE PRODUCTS ON OFFER, IT'S WHERE AND HOW THEY FIND OUT **ABOUT THEM.** 

# IN FOCUS... LESSONS FROM COVID-19: **CAMBRIDGE** PARTNERSHIP FOR **EDUCATION AND EDUCATE VENTURES**

#### SHOCK TO THE SYSTEM

Early in the first lockdown, <u>Cambridge Partnership for</u> Education and EDUCATE Ventures partnered to take a look at how the COVID-19 pandemic would affect the UK's education system and how EdTech was being used during the crisis. Looking at evidence from a full range of education stakeholders, they have just released their recommendations and practical guidance for how EdTech can be used more effectively in the future.

### WHY IT MATTERS

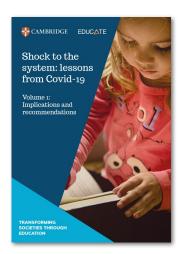
This will be a welcome report throughout the EdTech community. Coming at a time of extreme uncertainty and during which the education sector has seen unprecedented challenges, one of the biggest difficulties has been wading through changing guidance and new ways of working. All this whilst maintaining high-quality education, not to mention individual wellbeing. In this report, Cambridge and EDUCATE have taken a deep dive into data from across the education sector and pulled out some significant lessons from it. Their recommendations and practical guidance will be useful for stakeholders from front-line educators to policymakers.

#### THE FINDINGS

The report lists two key findings from the evidence: (i) not enough attention was paid to the education ecosystem as a whole; and (ii) poor connections and communications can jeopardise that ecosystem.

The report takes a detailed look at what the research findings mean for various aspects of education, including government policy, assessment and the ways in which different types of EdTech have been used. It also looks at how people within the education ecosystem need different types of support.

The first volume provides policy recommendations for improving the connections in the education ecosystem and diversifying the support provided, all based on lessons learned from the evidence. Cambridge and EDUCATE have also created practical guidance to better establish that support, starting with ways to optimise the effectiveness of online learning.



### KEY TAKEAWAY

- Effective connections across the whole education ecosystem are vital for it to thrive: this includes parents, teachers, learners, policymakers, EdTech and content suppliers.
- Support is different for all stakeholders. Since the pandemic started, their individual challenges have changed over and over again, with little help in terms of consistent support across the board. This report could go a long way to acting as a baseline for how EdTech can be used to support the ongoing and future challenges that face the education system.

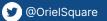
For access to the full report, visit: Cambridge Partnerships for Education.

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