

Edtech 2016: Global Perspectives, Local Insights.

A report by Svenia Busson & Audrey Jarre





2016



2017



2018



2019



2020

About the Edtech Tours:

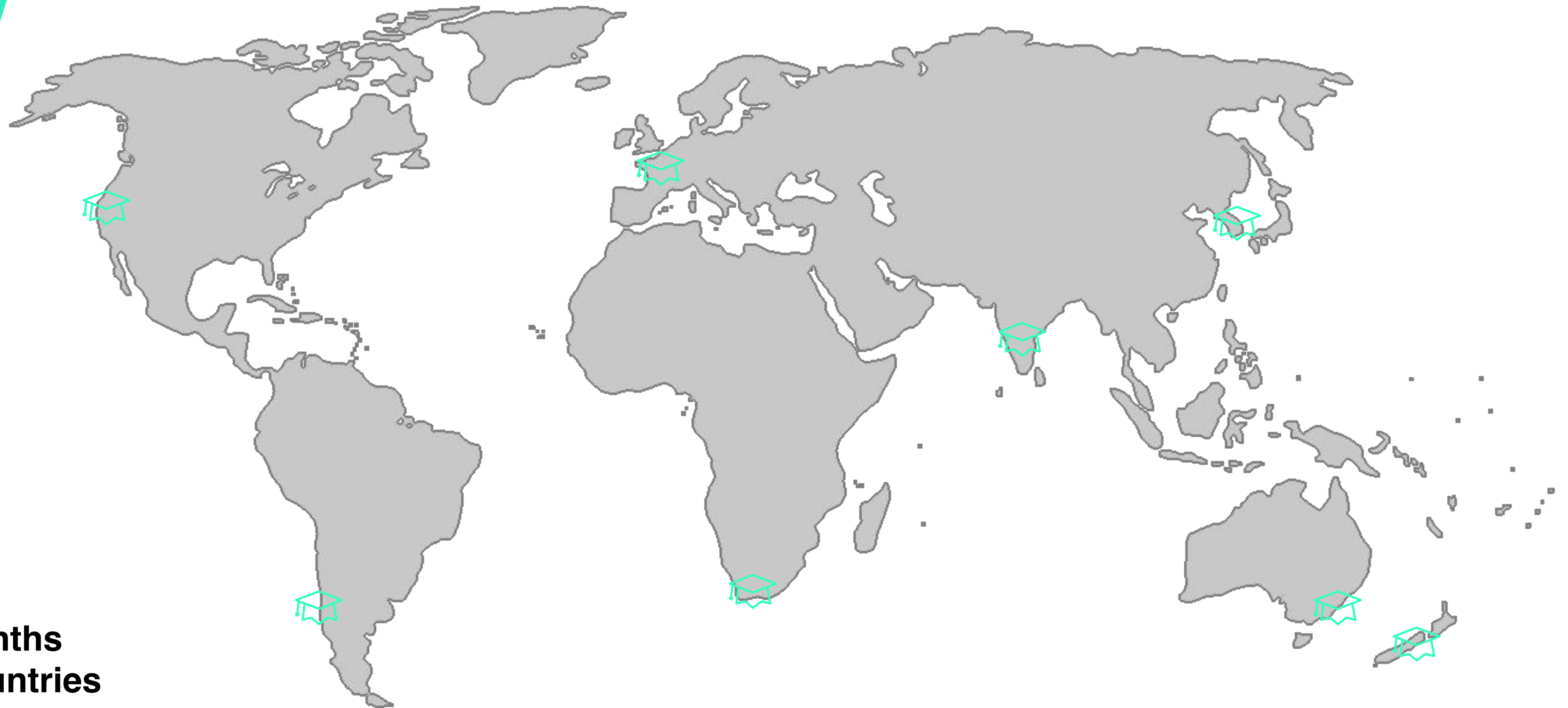
The *Edtech Tours* initiative is an independent non profit organisation conducting empirical social science research that wants to share pioneering experiences and various international case studies regarding the use of educational technology. Its purpose is to contribute to the development of thoughtful usage of educational technologies in the international community by sharing the vision and efforts that were deployed for its promotion in various EdTech hubs around the world.

This report concerns the first tour, the [Edtech World Tour](#) conducted between 2015 and 2016.

Summary



Our Journey



5 Months
7 Countries
351 Interviews

Manifesto

5

We chose to study Edtech ecosystems because technology is now in the hands of everyone and we wanted to explore the potentialities of it whilst being aware that it is just a tool and not a silver-bullet. It seemed important to us to shed light upon ecosystems that are not put forward in the international community although we can learn a lot from their development.

Language, time and distance barriers hinder effective communication between Edtech influencers. Different key stakeholders live in the same ecosystem without collaborating effectively because of the lack of a common platform to share experiences, concerns and best practices.

During 5 months, we interviewed investors, teachers, students, 'edupreneurs' & policy makers to get a good understanding of the state of Edtech in a given country from all perspectives, trying to make sense of those cities and their environment in relation to learning technologies and came back with a series of best practice examples from all around the world.

Goals

This report examines the shaping of **Edtech ecosystems** in seven different countries around the globe.

It is based on face-to-face interviews in over ten countries conducted from May 2014 to April 2016 by the Edtech World Tour team.

Our goal was to **identify trends, practices and tools** which appear to be effective and scalable in the provision of quality education through technology.



Methodology

This mapping exercise employed mostly qualitative data collection tools: semi-structured group discussions and interviews formed the modes of primary data collection as well as a review of secondary data of previous mapping exercises, field reports, statistics, news articles covering the field to contribute to a triangulation of our own findings.

Figures are from a variety of reports listed in the Resources section below.



TECHNOLOGY

Executive Summary

Going Global Is All About Local Insights

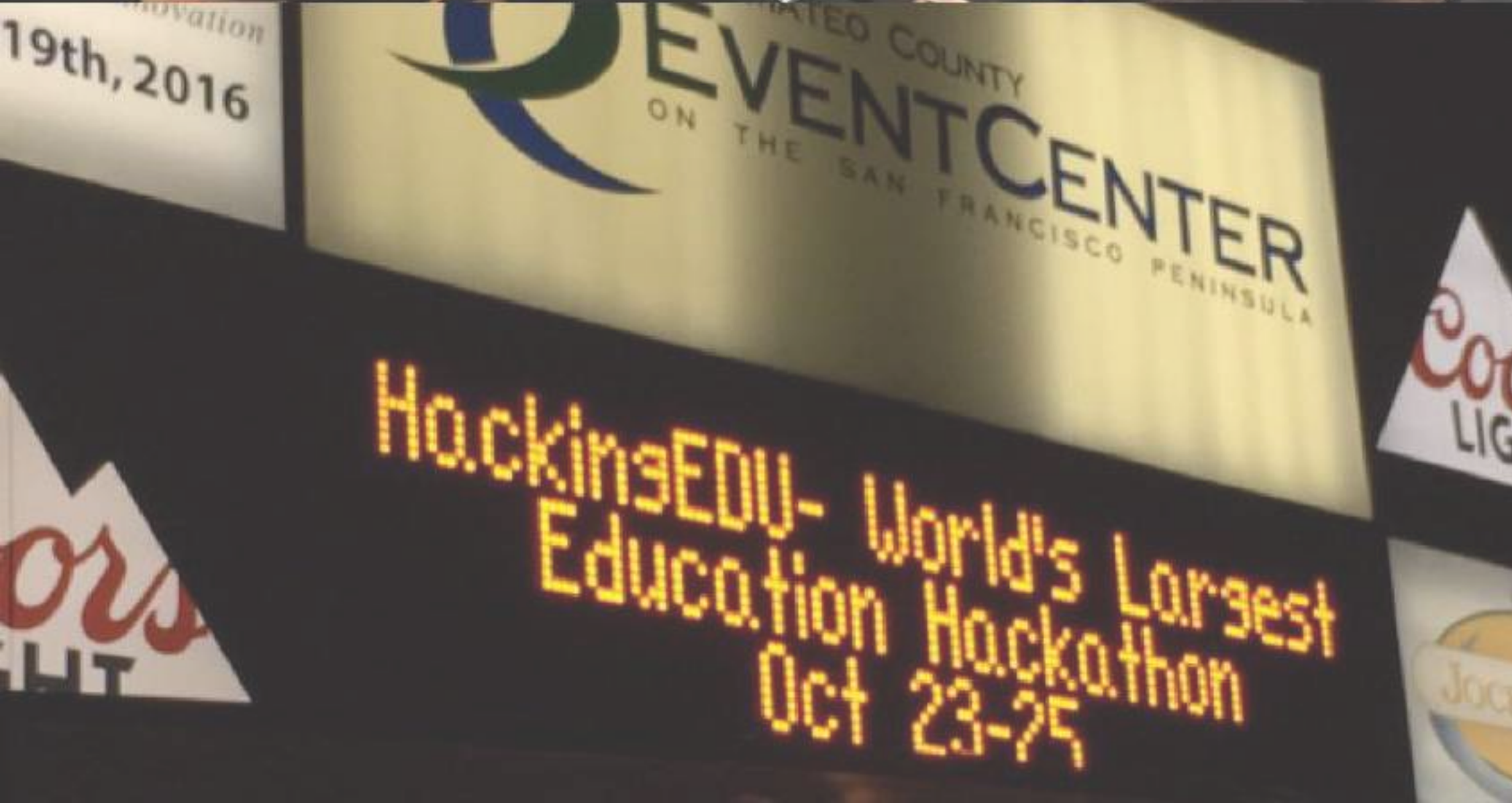
We named this report “Global Perspectives, Local Insights” because despite the fact that Edtech is a global trend, it is deeply linked to a country’s peculiar cultural understanding of learning. Content may be partly globalized, yet one should never underestimate the weight of culture and context in education and the fact that there is no global approach to learning yet. It is all the better because we would lose a part of our DNA in the process were it to happen.

There is no ‘Uber for Education’: the day a global adaptive learning software will bring a worldwide solution to Education hasn’t come yet. For now, Edtech has to adapt to every country’s specificities. An innovative solution in India won’t be perceived as such in the US, because the countries don’t have the same market maturity, infrastructure and culture. That is what we try to show in this report: best practices from countries we visited that have a strong impact in a given ecosystem and which we can get inspired from to improve our own taking into account contextual data.



Student working on her tablet at Point England School , Auckland

©EdtechWorldTour



A Global Need For Dynamic Clusters

10

Edtech startups need a dedicated ecosystem and a strong community to thrive. **“Being a tech startup is like a marathon, being an Edtech startup is like an ironman”** once said Busuu CEO Bernhard Niesner, strong specificities are linked to Edtech and it is hard for entrepreneurs to be sustainable and find the right revenue model, find the perfect balance between being too much “Tech” and not enough “Ed”, get in contact with educators, schools and students.

This is why there is a need for dedicated organizations (incubators, accelerators, VCs, media and community builders) to help those ventures to launch and develop with the right contacts, mentors, investors, etc. That culture exists in the US and is spreading around the world. Community builders are key to those ecosystems. The US has [Edsurge](#), Chile has [Edtech Chile](#), New Zealand has [Education New Zealand](#) and [NZTech](#), Australia has [EduGrowth](#) and [SydEdutech](#), India has [EduGild](#), South Africa has the [Cape Innovation and Technology Initiative](#) that is launching [Africa’s first Edtech accelerator](#).

Tinkering With The Maker Culture

11

Some initiatives highlighted in the report are focussing on ‘more Ed less Tech’ philosophy and are adopting a student-centric approach with a focus on 21st century skills, called the 4Cs (Communication, Collaboration, Creativity, Critical Thinking).

The maker culture can provide those skills and change the paradigm from a passive, top-down from an active, more engaged approach to learning. More and more schools are tailoring the maker culture to Education and trying to bring it into core subjects, as well as tackling the skills gap.

“The Teacher Is The Killer App” (John Martin)

Teacher should stand at the forefront of education innovation, be continuously trained and involved in the shaping of future of education. No app, AI or adaptive learning software will ever replace the teacher. But his role has to move from being the ‘sage on the stage’, pushing content to passive students to becoming the ‘guide on the side’, guiding students and helping them find their way. There will always be a need for an inherently human component in learning. Far too few startups have understood how valuable it is to have teachers in their teams, but they have gained significant experience being in front of a classroom. Teach for All does a great work at creating a generation of education changemakers, that understood a community specific needs and putting together their efforts in creating organizations that could solve them

We found some compelling teacher training and empowerment programs around the world that we included in our report.



Rama Rao, Ashoka fellow and founder of the RIVER Methodology with students

13

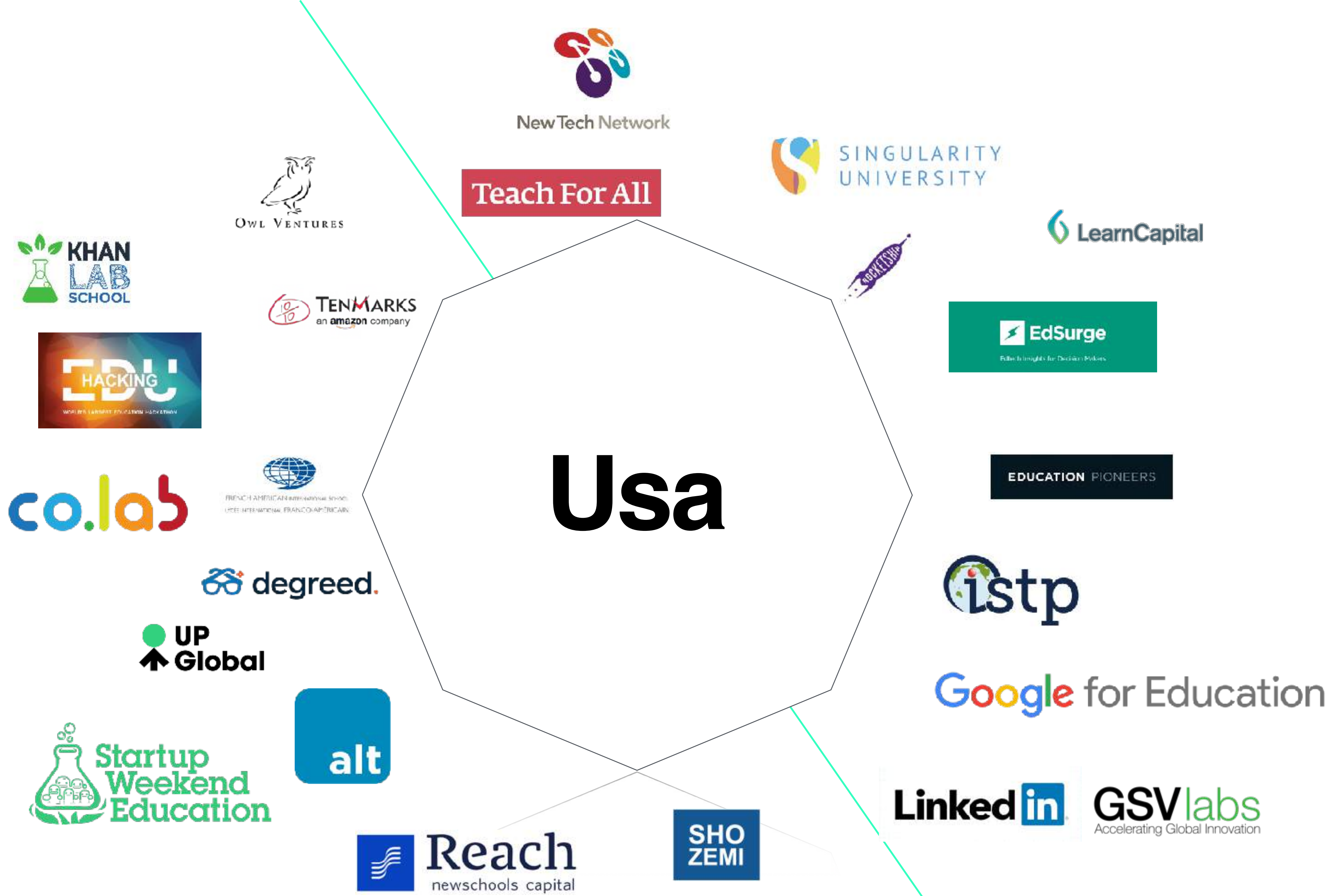
Less Hardware More Training

Too often, public policies have been supporting hardware that comes before PD and infrastructure. Before rolling-out devices, one should pay attention to the teachers and their training. Knowing how to use a tablet doesn't mean knowing how to teach with it. Secondly, infrastructure should be in place as schools need to be connected to the internet in order to innovate. Last but not least, content should be adaptive, put up-to-date and teacher driven in the sense where they have to be able to create and decide which content to use.

In this regard, we also saw "worst practices" and failures around the world, from which we have to learn, notably in Los Angeles (LAUSD) and in Peru (One Laptop per Child Project) to mention only these two. Massive roll-out of devices decisions may be taken in government offices without consulting teachers on the ground and understanding their needs.



Country Reports



When Vision Meets Spending Behaviors

16



The US Market has currently the vision, the economy and the spending behaviors to guarantee significant adoption.

In the US, the conversation has shifted from whether schools should use technology to how it can be used most effectively and how to help best practices take root more widely with the debate shifting to people generally **advocating for more "active" uses of technology** (coding at the forefront, creative media production or design).

Startups are able to **get their products into the classroom** quite easily in a few districts. For example, New York's Department of Education has a unit, [iZone](#) (Innovation Zone), that tries to match schools with Edtech companies, depending on the needs of both, for these short-term trials.

Building An Ecosystem Is Key To Success

17

The US is the most mature Edtech ecosystem because it has been able to foster innovations thank to **dedicated organizations** like media, incubators, accelerators, non-for-profits, VCs, all specialized in the Edtech space which provokes the rise of initiatives which join organizations that can help them grow. This specialization is key to building a community around Edtech and make people aware of the potential it can have for society.

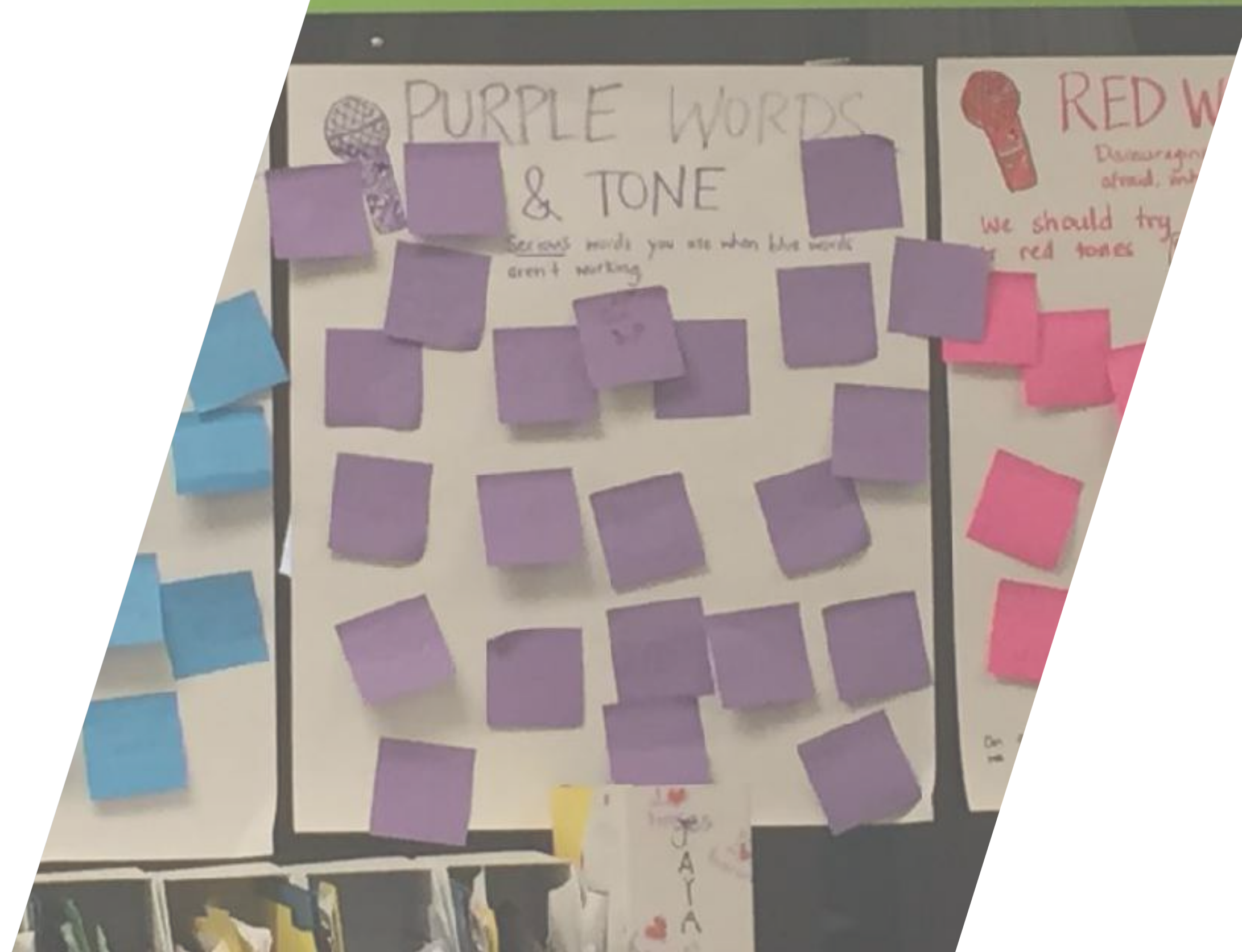
Edsurge is a great resource to check out to have a granular vision of the policy and state of things in various districts: look at their Fifty States Project that showcases educators stories from all around the country.

18

Connectivity: A Lever For Equity?

Is Edtech exacerbating the already-large **achievement gap**, enhancing the performances of an elite through a connectivity discrepancy (among districts, schools or even individual students)?

Thanks to the [ConnectED](#) initiative and the E-rate programme (annual budget: \$3.9 billions), 99% of public schools have some degree of connectivity. However, some schools have high-speed broadband (under 40%) when other have rationed-out Internet time. [EducationSuperHighway](#) is a nonprofit that evaluates school broadband speed (see [SchoolSpeedTest](#)): they are of the mind that there is a **need for a comprehensive national data set to identify schools struggling with inadequate bandwidth.**



Best Practices // Bay Area



1. Edsurge
2. Reach Capital
3. Donor's Choose
4. The Micro-Schools

(1) Edsurge: The Power Of A Dedicated Media

20

Edsurge aims at connecting and shedding light upon Edtech initiatives as well as providing information for buyers to **get rid of the asymmetry of information that characterizes the education technology marketplace.**

Its various well-known initiatives are facilitating the K-12 and now the Higher Ed (with the launch of EdSurge Higher Ed) landscape in the US. Because it's hard for schools and districts to find the right product, Edsurge created a new service for them: the **Edsurge Concierge**. The Concierge Team helps them to connect to EdTech products they need. The personalized service is free for schools and districts and saves school teachers and administrators a whole lot of time and effort.

Edsurge does an amazing job at connecting education innovators and Edtech founders through a second initiative, **the Tech for School Summits** that are organized throughout the year all over the US and where start-ups pitch their products and tools to a crowd of teachers that also get to evaluate them in real time and give direct feedback to entrepreneurs. The outcomes of these two initiatives are win-win: teachers are eager to discover and test new tools and products to enhance learning and classroom engagement. Founders gain precious teacher feedback on their products, new prospects and clients to sell their product to.

(2) Reach Capital & Personalized Learning

Reach Capital, spun out from the nonprofit New Schools Venture Fund in 2015, has raised a **\$53M fund** launched in October 2015 to back Edtech startups and operate as a for-profit, impact investor. Jennifer Carolan, co-founder & general partner at Reach Capital, began her career as an History Teacher and strongly believes in the power of Teacherpreneurs: **40% of teacherpreneurs** are evolving in the Reach portfolio, proving the common myth of a thoroughly siloed edtech sector wrong.

Differentiation is one of the key focus of the fund and underpins most of its investments. In an interview with Edsurge, Carolan emphasizes the importance of personalized learning to bridge the achievement gap. This strongly influences their investment decisions and some of their portfolio companies (Newsela, Class Dojo, Socrative, Nearpod etc.) are clearly having an impact on the personalization of learning.



(3) Donors' Choose: ²² Crowdfund Innovation

DonorsChoose is a **crowdfunding platform that connects teachers in high-need communities with donors who want to help**. Public school teachers can now finance projects to enhance classroom learning.

Tim Jones is an ELA (English Language Arts) Teacher in a public school in the underserved area of Palo Alto (CA). His school has a very limited budget to buy extra furnitures like painting material and no budget at all to buy laptops, tablets, drones, 3D printers... Jones launched an elective course called "tech class" where his students can learn how to code and use all the technologies mentioned above. For it to happen, he raised close to 250.000\$ for his school and opened up opportunities for his underprivileged students. His "tech class" is offered to 6th graders who can't access those technologies at home, whom he inspires towards new professional paths they wouldn't have envisioned otherwise.

DonorsChoose.org has **reached over 18 million students** through 725000+ successfully funded projects thank to 2m+ pledgers since its inception in 2000.

(4) Experimenting With Micro Schools

Micro-schools are **highly experimental and iterative K-8 schools that aim at building schools of the 21st century** where every student can learn at his pace following his need. The two most popular Micro-schools in the US are Altschool and Khan Lab School.

In both AltSchool and Khan Lab School, mixed-age classrooms are key, as well as the ability for kids to **switch between a highly individualized instruction and project-based learning** (in groups).

Children are given more control over their learning, both schools assuming children are extremely capable learners and that your role as an educator is to channel those cognitive capacities. Rethinking **the idea of an age-based cohort** allows for mentoring and interesting interactions between students.

(4) Micro Schools

AltSchool, started by Max Ventilla, a former Googler, is a software-driven private school franchise on a mission to “rethink how education can serve families in the modern era”.

24

AltSchool has a **team of over 100 people** today (equally divided between operators, educators and engineers) and calls itself a “network of micro-schools”. Beyond creating a school, AltSchool is aiming at fostering a new model for primary education: VCs backed the for-profit AltSchool, beyond its current schools scattered in the Bay Area, because it can scale. While education giants are in a constant R&D process to adapt their offering, AltSchool’s in-house platform team directly builds out the software and features that are useful to their educators. **Instead of having to drive teacher’s adoption, the products are educator-driven.**

Khan Lab School is an R&D laboratory for pedagogical principles where the afternoons are dedicated to project-based learning at the pace of each student. Most of the principles underlying this school and how it prepares and empowers its students for the post-industrial world through radical methods can be found in **Sal Khan’s book, The One World Schoolhouse**. Being located in the same building as Khan Academy allows for a largely user-driven design of course materials. Engineers and designers get to see first hand the teachers and students’ workflow. Having a year-round school (there are no summer holidays) and no classrooms (there is a single large space with breakout rooms) is completely **unbundling the place and time-bound parameter of schooling in the K-12 system.**

exosphere™



Chile

ST>RT-UPCHILE



innovacion.*
innovación + educación





Education To Bridge The Ever-Growing Social Gap

26

Chile may boast the 3rd highest per capita GDP in Latin America but it is also the country with the highest inequality within the OECD (it has a **Gini index of 52.6**) and the disparities are clearly visible in the schooling system. Higher education, notoriously unequal with costly, high quality universities only accessible to a privileged few, contributes its fair share to this issue, as the **big gap in enrollment** between students in the top and bottom income quintiles testifies.

There are major Chilean civil society organizations (like [Educación 2020](#)) that works to ensure high-quality, inclusive education for all students in Chile, founded on the principle that an equitable education system is the cornerstone of a more democratic society.

27

‘Chilecon Valley’

Santiago’s vibrant startup culture showcases a clear project for the government over the last five years in turning the city into Latin America’s innovation & tech hub by bringing in entrepreneurs from all over the world. Education startups make for 11% of last year’s cohort of the flagship programme Startup Chile. CORFO (Corporación de Fomento de la Producción de Chile) is the governmental organization to promote economic growth in Chile that funds Startup Chile, early stage startups and many other innovative national initiatives. The Latin American market is huge, and Chile is a great base from which to start a business or organisation that aims at expanding and manage to bridge cultural differences via smart local partnerships.



Best Practices // Chile



1. Open Green Road
2. Lab4U
3. Enseña Chile + Ceeduc
4. Fundación Chile

(1) Open Green Road

Puntajenacional.cl, Open Green Road's (OGR) main product is an online tool to prepare Chilean students for the PSU (exam sanctioning the end of high school) through video classes and a mobile app. They have been acclaimed globally for their social work leveling the online medium to increase access to opportunities tremendously in public schools. OGR has helped over 630,000 individual students in six years of existence, with over 11 million views on their video channel (their main medium).

Following a successful freemium model, OGR offers their test preparation software to students free of charge and sells their platform to schools to provide additional analytics and integration into their curriculum.

OGR is expanding in Colombia: with its standardized test Saber 11, it also has the advantage of creating an incentive for students to use the platform thoroughly to prepare for exams, and hence to become **its best advocates within the brick-and-mortar schools**. Their videos are seen around the world by individual users thanks to the spread of the Spanish-speaking countries, and OGR is looking at expanding much further in the coming years.





(2) Lab4U: Creativity For Digital Natives

Lab4U provides a platform that enables **hands-on lab experiences through mobile devices**, transforming the smartphone into a lab. Lab4U's hands-on science lab uses built-in mobile sensors to experiment and a crowd-learning web platform to prepare, analyze and share lab results. The company aims to **improve science education delivering low-cost solutions** where thousands of students and scientists will be able to have a lab in their pocket.

The company, headquartered in Santiago, was part of the most recent batch of the co.lab accelerator in San Francisco. Komal Dadlani, CEO & co-founder, a biochemist, believes that living the experience of scientific experimentation is very expensive but of foremost importance while schools and universities in Latin America face a severe lack of scientific equipment due to high costs. The team hopes their work will democratize science and enhance the number of researchers and developers in Latin America. The company is also following the freemium model, where the tool is free to students to download and use and the school/district is the paying customer, tackling quality education against poverty.



Lab4U displays the extent of possibilities for low-cost solutions for Science Education enabled by the Edtech tool. It is also great way of **creating a (highly needed) scientific culture in Chile**: in 2010, there were 317 researchers in R&D per million inhabitants in Chile vs 5,151 in Japan*

*: World Bank

(3) Enseña Chile: Strengthening An Entrepreneurial Network

Enseña Chile is the pioneer programme in South America, key to addressing the striking gap between private and public schools and based on the Teach for America model. The seventh cohort will be strong with 120 participants (up from <25 during the pilot year).

When asked about her time as a teacher in a low-income community, Antonia Rabi, Alumna, Corporate Relation Coordinator put the emphasis on the importance of having **a good principal as a leader**, at times where too often public policies put hardware before strategy and training.

Two new **entrepreneurship-focused programmes** strengthening the Alumni network as it grows are noteworthy:

- A social entrepreneurship incubator for Enseña Chile, that helps the **10% alum creating a startup** to work through their ideation phase at a very early stage.
- A community of entrepreneurs in Education, CEEDUC, for more mature organisations to strengthen existing synergies.

(4) Fundación Chile



EXPLORAMOS TODOS LOS CAMINOS POSIBLES PARA
AVANZAR HACIA UNA EDUCACIÓN DE CALIDAD



The foundation has been putting in place a wide range of programmes in Education for the past 14 years, aiming at tackling global challenges in digitalisation and human capital. Their center for Innovation in Education has been a pioneer in Latin America with a clear mission statement “promoting the school of the 21st century” to face low learning outcomes.

- The 14 years old network Educarchile, providing learning resources, digital tools and communities is **used by over 65% of Chilean teachers** and its usage is widely spread across Latin American countries with over 98% teachers recommending it to their peers.
- The network Escuelas Líderes has been facilitating a link between research and day-to-day experience through seminars tackling quality education against poverty.
- Red Lab Sur is a lab for networked school innovation encompassing large-scale events, self instruction modules and publication of pilot experiences to enhance systemization.
- La Otra Reforma (together with Fundación Colunga and EmpredeFCh) is a funding and mentoring opportunity for four projects to perfect and evaluate their educational initiative or early-stage innovative practices tackling specifically underprivileged school, intercultural education and school climate.

New Zealand



EducationPerfect



Manaiakalani
the hook from heaven



Innovating In A Decentralized System

Public schools are highly regarded in New Zealand (there are **only 6% of private schools**) and the country's education system is decentralized. The state gives schools the responsibility and doesn't interfere with their budget allocation: the 2600 NZ K-12 schools are free to make their decisions and **budget allocation**.

Difficulties exist in the local implementation of Edtech in schools and are linked to the **country's decentralized system where every school makes its own decision about the product and services they want to purchase and use**. This strength is also a weakness: while every school can innovate without hustle, and try new products or pedagogical innovations, it gets complicated for Edtech start-ups to sell their product nation-wide and plan a cross-country roll-out. Country-wide adoption may be difficult yet NZ remains the perfect test-bed to experiment before developing internationally.

International education is New Zealand's (4.5 M habitants) fifth largest export earner, contributing \$2.6 billion to New Zealand's economy every year and supporting 28,000 jobs. Edtech companies like Education Perfect (K12 online learning platform), Totara Learning Solutions (Enterprise open source LMS), and Vital English (IELTS test preparation) have successfully exported themselves abroad.

“NZ has a great reputation for education and literacy which helps us as an Edtech start-up exporting our services in South East Asia”

— Tracy Strudley, Bud-e Digital Founder.

The combination of the government's efforts -together with N4L- to bring high speed internet connexion to all NZ schools and the work of MindLab training NZ's teachers to new subjects like coding, robotics, 3D printing has a huge potential in making NZ the next model for successful Edtech use in K12. The challenge is now to understand how similar models can be scalable in larger countries and what type of stakeholders need to be involved for it to work as effectively.

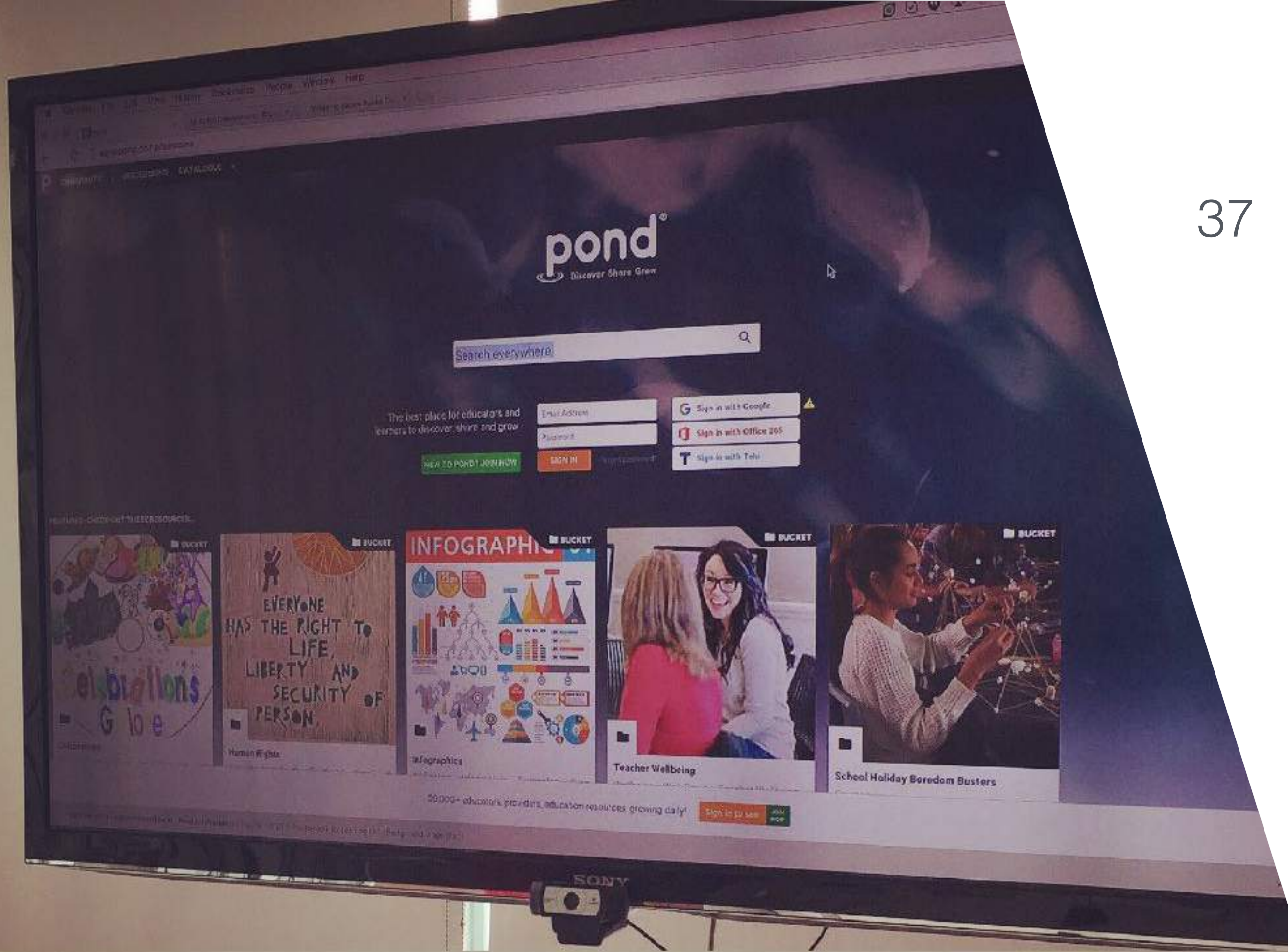
Edtech For Export?

Best Practices // New Zealand



1. Network4Learning
2. The Mind Lab
3. Point England School & Manaiakalani Cluster

(1) Network For Learning



Network for Learning (N4L) has two main activities: First, to connect NZ's schools with fast broadband internet. Future-focused schools that were outgrowing their internet package can continue at their thriving pace now: ultra-fast broadband is critical in enabling schools to explore more innovative approaches to teaching and learning. N4L's fully government-funded managed network has been designed specifically for schools: to date, more than 2050 schools (over 80% of all New Zealand's schools) are on the Managed Network.


Pond, the second activity of N4L, is an online environment aiming to unite New Zealand teachers, school administrators and students with providers of educational content and services: it is designed to act as a central hub for digital discovery and participation, where educational resources can be accessed and shared. Already 13,000 from the 70,000 NZ teachers are active users of the platform.

(2) The Mind Lab

The Mind Lab is an inter-disciplinary learning lab offering science, creative and technology programmes for school groups and professional development for teachers: it delivers a very interesting postgraduate certificate in Digital & Collaborative learning for New Zealand teachers, a part time qualification to build on knowledge of emerging technologies and teaching methodologies. The post-graduate programme that covers topics including coding, 3D modeling and printing, science, robotics, game development, electronics, film effects and animation is already implemented in over 6 cities in NZ and convinced 14.000 teachers.

The program consists of a 32 weeks training with 16 weeks where face-to-face learning with facilitators, with IT, AI, robotics background 4 hours per week. Followed by 16 weeks of blended-learning mixing online and some drop-in learning sessions. Teachers are engaged to think about the future of education, leadership, and change in knowledge to rethink their pedagogical approach. For now, only primary and secondary teachers can participate but 2016 will see the rise of a new program for tertiary education. The total cost is 2750 NZ\$ with a 2000 NZ\$ scholarship offered by both the Next Foundation and The Mind Lab to teachers. The program consists of a 32 weeks training with 16 weeks of face-to-face learning with facilitators that have an IT, AI, robotics background which they meet 4 hours per week.

Over the next five years additional new sites are planned with the goal of training 10,000 additional teachers and over 180,000 school students.



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Learning)



(3) Point England School

39

At Point England School (K-8) in Auckland, teachers use e-learning to transform the lives of children from low-income areas. Staff and students are high-level users of ICT across all curriculum areas, and make extensive use of online projects and communications.

More than half of the students are from Pasifika families (where often the main language at home is not English) and another quarter are Maori. In this School as well as in the 12 other public schools of the Manaiakalani Network, Edtech proved to be the ‘hook’ to guide the whole community to better educational outcomes. Through an innovative pedagogy called the ‘Learn, Create, Share’ Framework, the schools are putting the students at the very centre of their learning.

The “Learn” component aims at empathizing the fact that the learning needs to meet the request and requirement of each particular school and community and raise students achievement outcomes.

The “Create” component is about allowing the students to be “creative human beings as part of the learning process and this means doing things that have not being part of the traditional classrooms using the affordances of tech to do things we wouldn’t be able to do in the past” says Dorothy Burt, Head of the Manaiakalani Education Programme.

(3) Point England School

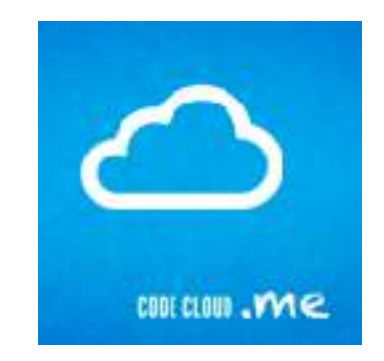
Finally the “Share” component is about giving the students “the opportunity to show their understanding of their learning in different ways from what was available before” and sharing their learning with the world through blogs (every student has a personal blog from second grade). Burt emphasizes the importance of sharing for kids: social media is part of their life and some of the blogs got between 20 and 40,000 views and a lot of interaction which is both rewarding and engaging. “The ability to share made a significant difference to the attitude towards learning and to the outcomes” says Burt. Indeed, by publishing their work on the internet and attracting feedback from around the world, their motivation for school skyrocketed.

From a device perspective, all students in the cluster from Year 5 upwards have their own personal computers on a lease-to-own basis: the cheapest possible device that is capable of online access at a cost parents can afford (NZ\$3.50 a week for four years thanks to a micro-loan system made possible by the Manaiakalani trust).

This model has been replicated in 12 schools of the Manaiakalani network, which are located in three low-income areas of Auckland (very close from each other: in a 3 km radius). In this area where parents couldn't afford internet at home, which didn't allow the flipped classroom model to work (kids didn't have access to the lessons on their laptops at home), Russel Burt, Convenor of the Manaiakalani schools cluster and Principal of Pt. England School and the Manaiakalani trust decided to install wifi antennas on street lighting facilities, a good power source for the antenna to give kids the chance to continue their learning journey at home. The wireless internet works only for the child's device for now.



Australia





Embracing Change⁴² To Leverage International Online Education

Currently there are **half a million international students in formal education in Australia**, but the traditional concept of the student may shift before 2025. Richard Colbeck has launched a radical plan (Australian International Education 2025) for Australia to embrace recent changes and **use online technology to grab 10% of the world market in education by 2025** (=110m students) through notably an aggressive marketing of online education.

EduGrowth is the newly formed “national acceleration network for high growth, scalable, borderless education” with plans to reach 100 million learners across the world with Australian EdTech.

43

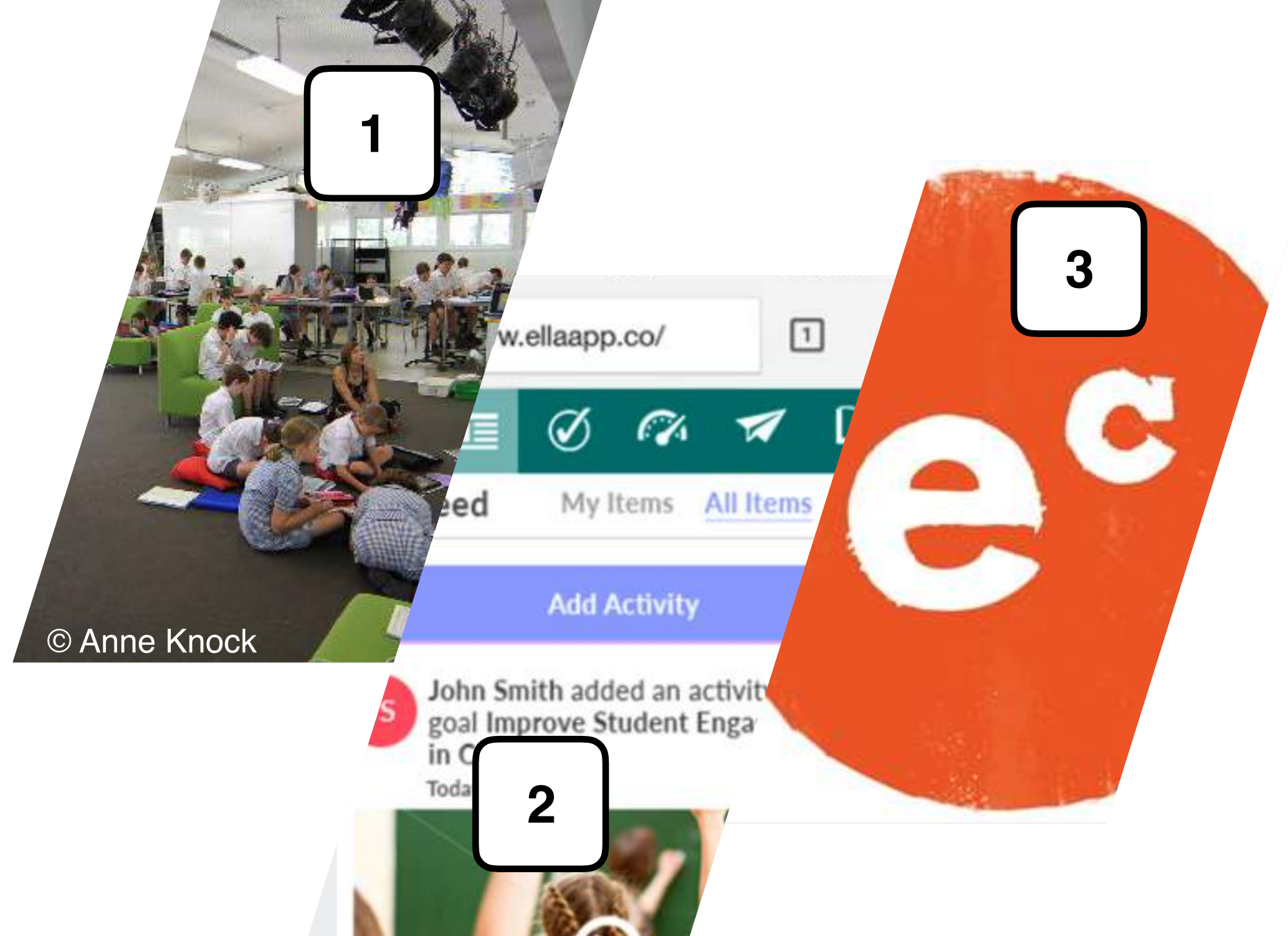
Asia As A Priority For Export And Expansion

With Education as the third largest export market (AUD \$19B in 2015, beaten only by coal and iron ore), the Edtech community in Australia aims at **changing the way that students in Asia-Pacific learn** and study beyond their own territory. China was chosen as the first trade mission of the Sydney Edutech group.

A few startups like WeTeach are specifically designed for that market, going as far as using the native WeChat environment to **eliminate cross-border delivery issues**.

Best Practices // Australia

1. Innovation Cells Within Schools
2. Teachmeets & Ella
3. Education Changemakers



(1) Innovation Cells Within Schools

Sydney Center for Innovation in Learning is an innovation unit embedded in a K12 school that runs a range of programs and research projects that seek to transform educational thinking and practice both at their school and in the wider educational community. Stephen Harris, NBCS's visionary principal, founded the Sydney Centre for Innovation in Learning in 2005, with a vision to embed research and innovation into everyday school practice.

He wanted the teachers at the core of this initiative and encouraged them to come and think about education innovation with him in this dedicated space. What came out of this teacher-led reflexion is a complete change in space and teacher-student relations, with an open-space instead of classrooms and the role of teachers that have pivoted to being guides on the site.

This new paradigm towards which he aims at helping schools move, is one “where learning is personalized and collaborative, technology is adaptive, spaces are radically different to the traditional mindset, and a community built on positive relationships is at the core”. At the heart of the change: a profound learning culture facilitated by technology, space and pedagogy that empowers and engages students.

The school aspires to host (edtech) start-up companies that can work out of the co-working space attached to the school. Entrepreneurs and their team work within a school which allows them to test and adapt the product to the teachers' needs. Rowan Kunz is one of such. After founding a couple successful Education ventures and spending 8 years researching the key strategies used by Australia's top students to create academic excellence, Rowan is Chief Learning Architect at MyEd. The company aims at helping teachers remove a one size fits all approach to their classroom through a gamified next generation learning management system that enables teachers to easily create individual learning pathways for specific students, and then access real time data on student performance to better help students reach their potential.

(1) Innovation Cells Within Schools

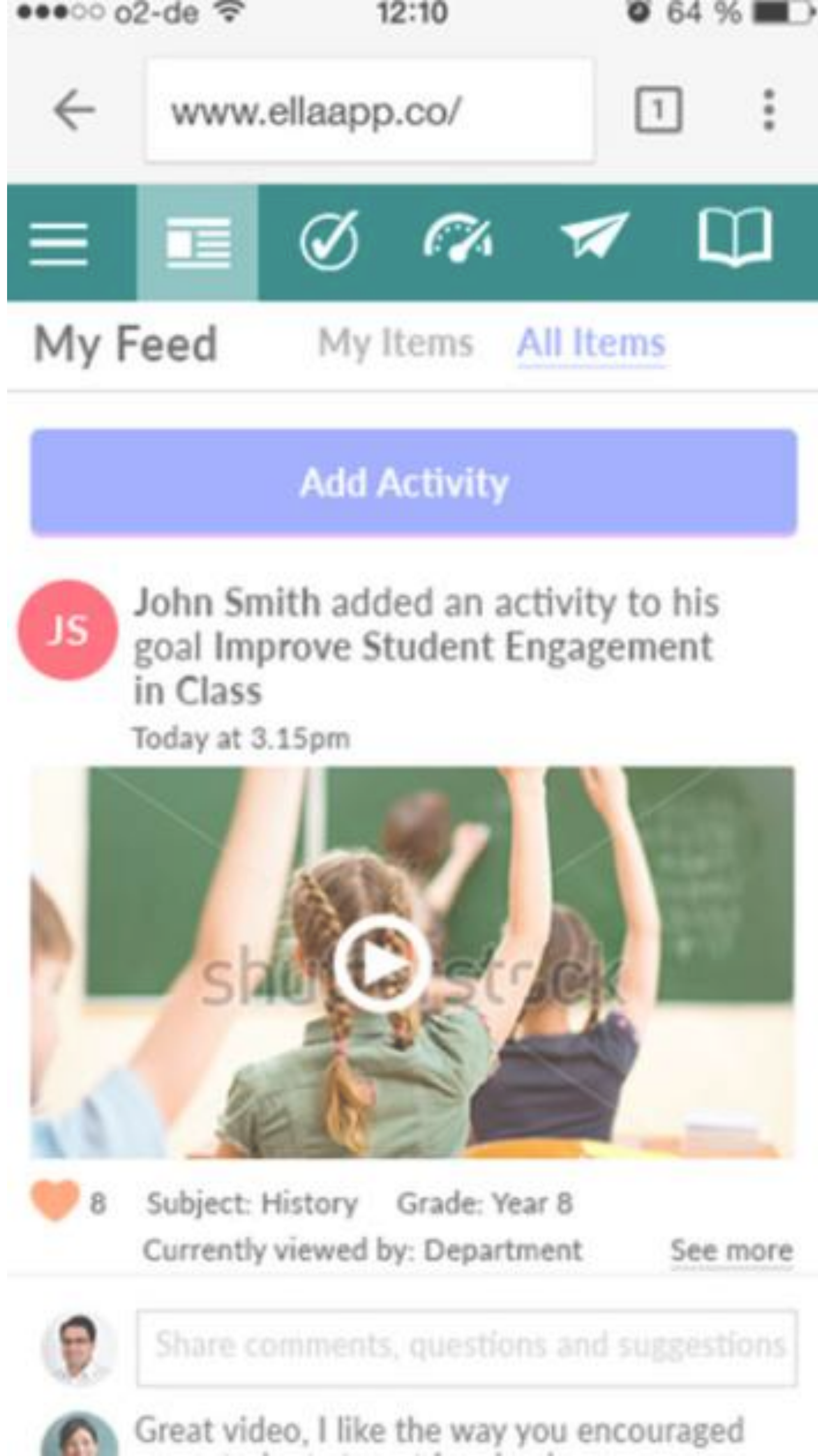
Teachers must be at the core: Importance of having teachers at the heart of any innovation projects in schools: top-down approaches rarely work, but including teachers in the change process has a strong impact on their own engagement and motivation.

Change needs vision: For mentalities to evolve, you need a strong vision, which has to be defended by the school leadership.

Change needs to be shared: We see a lot of value in sharing the results of such a change with the world: SCIL is organizing field trips to Europe's and US's most innovative schools for school leaders and is sharing their vision and the school's philosophy and evolution.

Change needs time: It certainly did not happen overnight. SCIL was created and defended by Harris, the principal, in 2005 and the previous picture was probably taken ten years later.

Parramatta Marist High School is another school having built an in-school innovation hub ([Center for Deeper Learning](#)). Over the last decade, it has implemented significant changes to the teaching and learning strategies across the school curriculum with the focus primarily on the implementation of three constructivist pedagogies; Project Based Learning, Problem Based Learning and the Flipped Classroom. They currently work with two affiliate organizations: The [New Tech Network](#), USA, for Project Based learning & [Republic Polytechnic](#), Singapore, for Problem Based Learning. Through the Center for Deeper Learning (CDL), they hope to share those experiences with other interested educators and continue to promote innovation and change.



(2) Teachmeets & Ella

47

TeachMeets are informal, collaborative experiences organised by educators, for educators in order to share ideas and experiences and support each other in their professional growth. Matt Esterman, entrepreneur and former history teacher at St Scholastica's College has been instrumental in developing them in Sydney along with teacher Henrietta Miller.

Atul Pandey and him developed a free professional development app called Everyone's Lifelong Learning App (ELLA): ELLA is an app to find, earn and track professional development for teachers and educators. Integrating being innovative into teacher training is the key challenge for them. The mobile platform allows to keep track of updated records, which helps course providers get more detailed feedback with powerful analytic tools to inform ongoing improvement and high-quality delivery.

Sharing best practices is key to success: during TeachMeets, teachers speak about what they concretely do to improve classroom engagement and learning which can **inspire other teachers in the community** to try.

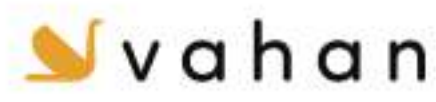
(3) Education Changemakers

“The Changemaker Program” is a Melbourne based Professional Development Program for teachers who want to bring about positive and sustainable change in their school. The **one-year-program** gives those teachers the means and leadership as well as entrepreneurial skills they need to start their own project inside their schools.

In a introductory two-days workshop, teachers should **identify a challenge** that their school is facing in their unique education setting and think of convincing solutions to solve it. Concepts like strategy, innovation, prototyping, leadership, impact assessment and change theory are introduced to them to help them start their projects with all the right skills.

After a few months, teachers participate to a second workshop which focuses on giving the participants the tools that they need to lead, and drive those positive changes within their schools. They also get to improve their change projects, having access to support from the workshop facilitators as well as the collective genius of the group.

Last but not least, a last one-day-workshop is organized to give teachers the tools to make their change sustainable and continuous. In total, the program lasts 12 months during which teachers can have unlimited access to strategy and coaching meeting with the facilitators through phone calls, videoconference etc.



GYANCONNECT





Quality Meets Accessibility: A Twin Challenge

50

There is a need for scalable models to bring affordable high-quality education to students and increase literacy. A poor quality of education in the country is yet coupled with a willingness amongst the growing middle class to pay for a good education.

Students across all economic levels have **access to basic mobile phones**: technology brings flexibility to learning, and that is the key way in which it can be helpful and useful in India. Because only 26.3% of the Indian population owned a web-enabled mobile in 2015, it is of paramount importance for the Bottom of the Pyramid (BOP), the population group that needs great Edtech products the most, that those solutions can be accessible offline.

Entrepreneurial Design Guided By 'Extreme Affordability'

Leveraging **basic infrastructure** (feature phones, etc) and offline solutions is key for effective implementation of technology in education. With 400 million kids under 18 and like any highly populated emerging markets, the challenges lie in the K-12 market. According to the latest Annual Status of Education Report (ASER), despite an impressive increase in primary school **enrollment** (96,7%), **attendance** (71%) varies heavily according to the different states and reading and maths levels remain low.

Nowadays, **government-run schools** lack resources and support for both teachers and students, especially in rural areas, with the fact that teachers are commonly absent perpetuated by a general lack of accountability. In 2014, 30.8% of the indian K-12 students were enrolled in private schools.

Tech can allow quality education not to be determined by physical location of good teachers anymore: **connecting students in remote parts of the country to highly qualified and skilled teachers in the urban centers.**



A young child with dark hair, wearing a white shirt, is sitting at a desk in a classroom. The child is holding a long, transparent ruler vertically. In the background, another child in a blue shirt is visible, and the setting appears to be a typical classroom environment with desks and papers.

Fear Of Exams Or Love For Learning?

52

Providing their children with a quality education is of utmost importance and priority for Indian parents, even if they have to get into debt. The **IIT entrance exam** market is huge with high pressure and stakes enabling innovation: one million students are competing each year for a spot in those prestigious IITs but only 10 000 are accepted.

The B2C space is much more lucrative as the customer and decision maker is a parent. **Tuitions (cram schools) are a very important part of the Indian education system**, especially in year 11 and 12 when students are preparing for highly competitive entrance exams: a number of Edtech companies have tried to **take the physical presence out of the equation**.

The large size of the market for educational offering has lured analysts and investors into keeping a close eye on India, especially as Startup India framed a newfound focus on the digital economy through a new action plan **simplifying norms and relaxing tax laws for Indian startups**.

After massive international success like [TutorVista](#) (sold to Pearson for hundreds of millions of \$ and targeting the US market), the current crop of entrepreneurs does now focus on the home-front. However, India itself encompasses a challenge of diversity: **more than 780 local languages including 23 state-recognized, official languages exist, creating a need for plurilingual Edtech products**.

Best Practices // India



1. Megshala
2. Vahan
3. Edugild

(1) Megshala: A Fellowship For Teachers

Megshala focuses on training teachers in government schools, where the results are the worst. The program consist of a 1-year fellowship for 30 teachers and aims at teaching them how they can use tech and digital media in their classroom and for their own training.

“We organized the training around a fellowship to make it seem more prestigious and to restore the lost pride in teaching”

Amrutha Murali, Implementation and Partner Manager at Megshala.

Within the program, every teacher receives a battery-powered projector and a tablet that contains lessons for their training stored in the cloud and that can be accessed offline. Megshala rightly addresses the challenges of multigrade teaching or first generation tech users. One must be aware that, although corporates may donate computers, they remain unused: beyond the available bandwidth, the problem is sometimes electricity. Megshala thought about those problems and developed a customized solution to this problem. They currently work with over 45 schools in urban Indian areas.

Amrutha Murali, Implementation and Partner Manager, Megshala

Public schools in India are in high need for reform: teacher absenteeism, overpopulated classrooms, low salaries are the day to day realities on the ground.

Teacher training can help value teacher’s work and contribute to their professional development as well as the quality of their teaching which is often too poor due to the insufficiency of their initial training.





(2) Vahan

55

English is in India a powerful tool for personal empowerment, development and key to a rise of the social ladder.

Vahan is a mobile education platform that allows students to practice skills learned in the classroom that is focusing on English language training in low-income communities.

For underprivileged individuals, a lack of resources to practice English is a major impediment to learning the language: Vahan's mission is to provide an inexpensive, easily accessible "application" to practice outside the classroom and enable the teacher to gather the necessary data through a web dashboard.

Madhav Krishna created the company in India after studying Artificial Intelligence at Columbia and his vision relies on leveraging the high penetration of basic phones and common practice of "missed call" (making the incoming call from the company free of charge) to enhance a functional use of English as a foreign language for those communities.

Madhav has been piloting the tool with community based organisations (CBOs) in NYC and is making similar trial of the adaptive tool in India at the moment. One of the venture's advisors, Mo Abdoolcarim, who previously worked at Apple and helped introduce Siri to the world, is assisting founder Madhav Krishna in creating a "Siri" style English conversation teacher.

The opportunities of AI in Education are high and so are the threats. We must be careful with all the ethical implication AI can have in particular on the learners privacy.

AI won't replace teachers, but in that case it can be a way to reach many more people to endow them with necessary English skills.

Vahan is one great example that Edtech needs to adapt to a community or country's particular context. In India no need to think high-tech when a large proportion of population owns a basic phone only: it's frugal innovation, making the most of what is available.

(3) Edugild

Founded by the Maharashtra Institute of Technology (MIT) in Pune, EDUGILD is India's first accelerator with an exclusive focus on EdTech. EDUGILD offers a 16-week intensive mentorship and product realization program to any EdTech start-up in the world. Selected start ups receive INR 15 lakh (25k\$) in seed funding in exchange of minority stake (up to 10%).

Amongst their new batch we find start-ups like Gradopedia which is an Edtech solution to ease university graduates' career choices. 22-years-old founder Hitesh Awtaney was in between career choices when he decided to create a career choosing platform. Gradopedia is meant for graduates to experience simulated job profiles by watching professionals talk about their exact job profile, analyzing themselves by answering technical questions and exploring various career profiles.

Another start-up, Simulanis wants to reinvent engineer education by using 3D gaming and augmented reality based tools to learn engineering. It develops immersive and interactive products and platforms to facilitate learning within the higher education domain, for the students and graduates of technical universities.





CHUNG DAHM Learning



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**South
Korea**



KOREA
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CLASSTING



The Reign Of Private Education

South Korea's long-term development strategy is closely linked to Education, that still holds a social and cultural value up to a level that is scarcely seen in other parts of the world. While Finland's high ranking in PISA can be attributed to excellent public schooling, Korea's appear to be influenced by **private education** more significantly despite abundant government funding for education. Supplementary measures (aside from formal schooling) account indeed for the largest percentage of learning, despite a recent bill passed by the parliament to prevent advanced learning. Students get out of school and head to hagwons (cram schools): according to National Education Report 2013, 60,2% of K12 students participate in them, with expenses estimated to USD 18.6 billions, with over 100,000 of them throughout Korea. In 2013, **families spent 14% of their income on this extra-curricular preparation.**



The Weight Of Tradition & Modernity

59

The South Korean e-learning industry was worth US\$2.7bn in 2015 and has shown a steady growth rate of 9% per annum for the past 5 years. **South Korea's cutting-edge climate made it rank top in the ICT Development Index for 4 consecutive years: it boasts the first ratio of household internet access in the world.** In a country where technology is so deeply embedded into daily life already, from the world's fastest home connectivity, unfathomable in most other parts of the world, to the intense smartphone penetration, we may wonder about the rightful use of technology in classrooms.

Despite initiatives that aim at democratizing the access to education like the public Educational Broadcasting System (EBS), the K-12 traditional school system (and the *hagwons*) remains very conservative and are seldom open to innovation and experimentation. The fear of affecting the test results is preventing innovations to happen inside the classroom with little focus being put on personal development, development of communication, collaboration, problem-solving skills.

Best Practices // South Korea

1. The 'Fishbowl'
2. The Flipped Classroom Experiment
3. Classting



(1) 'The Fishbowl'

61

One of the specificities of the Korea International School, an IB school based out of Seoul, is the “Fishbowl”, a highly visible, purpose built training room where students can see their teachers learning every day introduced by the school’s Edtech Team in 2011.

It is **an opportunity for teachers to integrate professional development (PD) during the day**, available during their prep period without taking over the whole time and thus fitting into their schedule. The vision is to assist teachers in the development of their ability to effectively integrate technology into the curriculum for their level and subject area of instruction through 30-minutes classes.

For this usage, KIS saw the construction of a purpose built training room with glass walls, so that **students could see their teachers learning every day** as to encourage a culture of learning where all members of KIS are involved, not just students: **the Fishbowl is a symbol for a continuous and participatory learning culture**. It is professional development in-house, every day that also transforms the learning culture at the school.



(2) The Flipped Classroom Experiment

62


Jung Chanpil, documentary director at KBS (Korean Broadcasting System) introduced the flipped classroom model to South Korea. After a successful pilot in a low-income neighborhood of Busan (South Korea) with the support of the district, mentor teachers and principal, of which he was the documentary director, he led a national movement for classrooms to change in that direction. The results after one semester were indeed stunning: student's achievement skyrocketed: in a Korean class where the teacher had flipped each of her class, the results after one semester went up from 20 to 50 (on a 100 points scale). In that class, flipped learning helped taking advantage of untapped potential as well as helping those who would otherwise have been left behind, deepening the learning

of advanced students who help teach those students who are struggling.

Jung Chanpil has formed Future Class, a group to amplify the movement in South Korea and help teachers strengthen and share best practices. The Korean non-profit, Future Class, with a network of 10,000+ teachers and regular hands-on training camps, has grown organically since its inception in 2013. Most of the K12 awards given by the Ministry of Education this year were given to teachers from this network. For Jung Chanpil, it's about giving back the ownership of learning to the students. Teachers are taught new skills, **from the basics of creating their own online videos (that the students will watch on Youtube) to Project Based Learning or facilitating the renewed in-school sessions.**

(3) Classting

63



Classting was created in 2012 by Dave Cho, a Korean elementary school teacher, that quit his high-regarded job to solve the problems created by large class sizes and insufficient parent-teacher-student communication. With Classting, he wants to enable teachers, students, and parents to participate in a single online community dedicated to learning, combining social and educational elements. Classting has become especially popular in its home country, being **used in a whopping 96% of K12 schools across Korea**. It has 1.8m users in the region (over 200,000 teachers in 13,500 schools) and expanding to four other countries.

In partnership with publishers responsible for the content, Classting also offers a learning card service where students can have access to 3, 5 or unlimited learning cards per day at a charge of a few dozen dollars per month. Funded by SoftBank Korea and angel investors, Classting has recently opened offices in the US, Japan and China and is trying to go truly global.

South Africa





Edtech To Go Beyond The Historical Legacy

65

Two decades after racial segregation was officially removed from the statute book, South Africa still boasts the title of one of the most unequal places regarding education with an extreme income inequality even for the born-free generation. Almost 58.5% of whites and around 51% of Indians enter higher education. The rate for coloureds is 14.3%, while blacks are even lower at 12%.

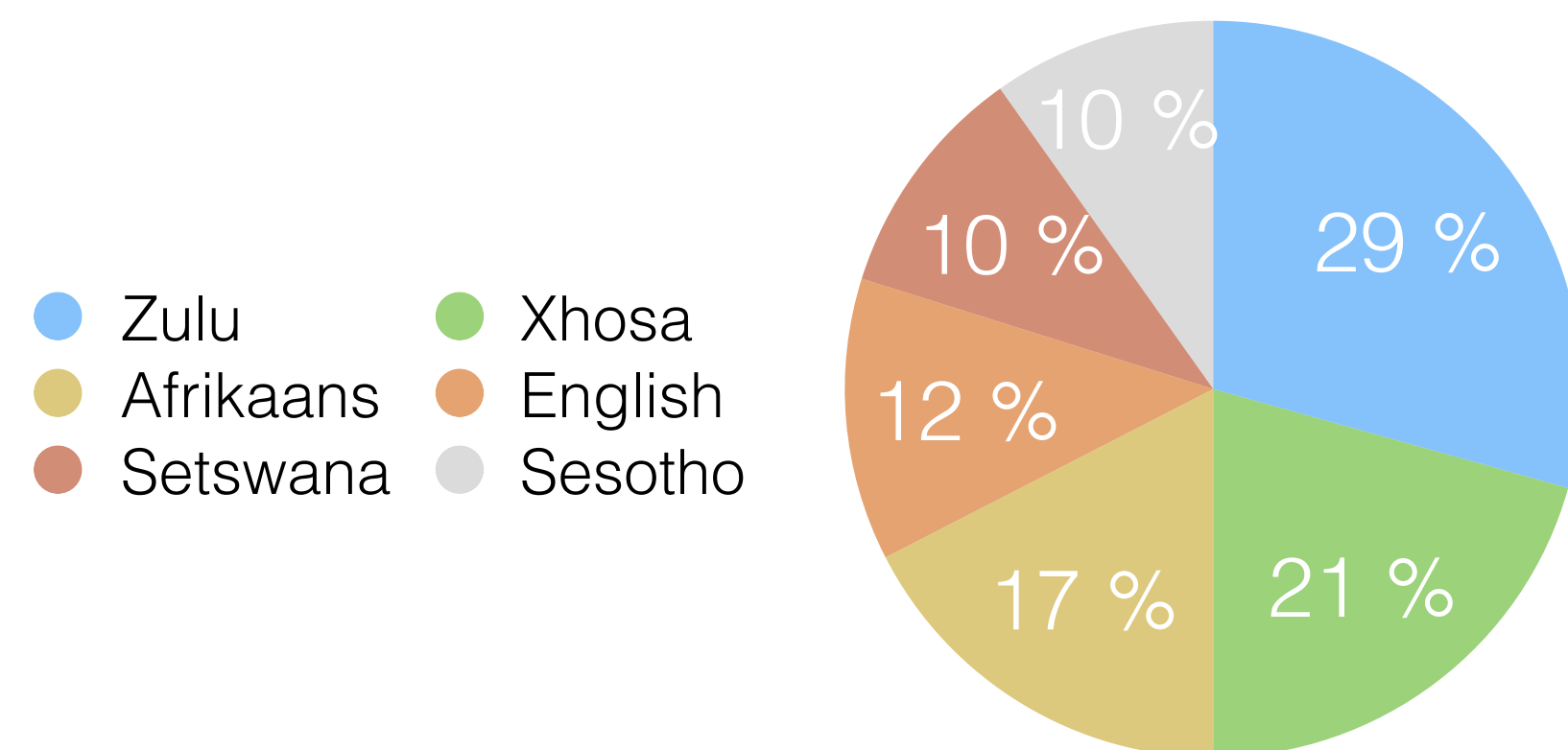
For resource-poor communities, and rural settings when education systems are not meeting societal demand, rapidly-evolving technology is opening new doors. Numerous funders are entrusting competent organisations with their resources to make their social investment and are focusing on the new possibilities enabled by technology. Africa's first Edtech Accelerator is now being build by Jamie Martin and CiTi to help these Edtech founders make a change in Africa.

66

Leveraging Tech To Bridge The Language Divide

There are **11 official languages** in South Africa but post grade 4, most of the teaching is done in English, creating yet another downward spiral.

There have been numerous studies on the relationship between the language of instruction and how the children perform: companies aim at leveraging mobile technology to bridge the language divide in South Africa and thus **encourage intercultural engagement**.



67

Education : Decentralized & Hyper-Local

South Africa has one of the **highest rates of public investment in education in the world**. It accounts for 7% of gross domestic product (GDP) and 20% of total state expenditure. Beyond two ministries at national level, Basic Education, and Higher Education and Training, **each of the nine provinces has its own education department**.

Greatest challenges for schooling lie in the poorer, rural provinces such as the Eastern Cape and KwaZulu-Natal. There are already 1 million students in the Western Cape studying in K-12 and a massive influx of students from Eastern to Western Cape (20,000+ additional school students per year) because the quality of education is seen as better in the latter. Yet, education standards aren't kept up to date as **school facilities and teachers don't match those changes of size**.



Leveraging Mobile Learning For Access

68

The uptake of mobile phone use has gone beyond expectations, with a whopping **89% of South Africans now owning a mobile**. South Africa also leads Africa in app downloads, usually an indication of higher smartphone adoption, with 34% of phone users making downloads from app stores.

Mobile devices enable **just-in-time, informal, chunk-sized learning** that is adapted to a South African context of long commutes and cramped family settings in townships. Learners need to be able to do short, effective bursts of practice when they can, to leverage those moments and turn them into learning opportunities.

Curriculum-aligned mobile apps may prove a faster solution for **on-the-go, supplemental learning**, while waiting for the brick-and-mortar setting to catch up through landslide provincial policies.

Best Practices // Cape Town



1. Greenshoots
2. Siyavula
3. Code X
4. Rethink Education

(1) Green Shoots Education



GreenShoots works with schools from all socio-economic backgrounds; however their focus is on assisting schools and communities that are facing the greatest challenges and barriers to learning.

The startup has been selected as part of the WISE Accelerator this year and is the only African-based company that is part of the current cohort of the programme, designed to support the development of young, innovative projects with high potential for scalability and positive impact in the field of education.

They have been developing a mathematics software that works on a basic Moodle platform and used by teachers to make students put in practice the theory they've learned the "traditional" way in class. The software also allows to progressively track individual learners to promote data informed decision making.

The Zisukhanyo Schools Project (ZSP) is the inaugural project led by Greenshoots from 2011 onwards and which have shown **sustainable results** over time despite the programme being over.

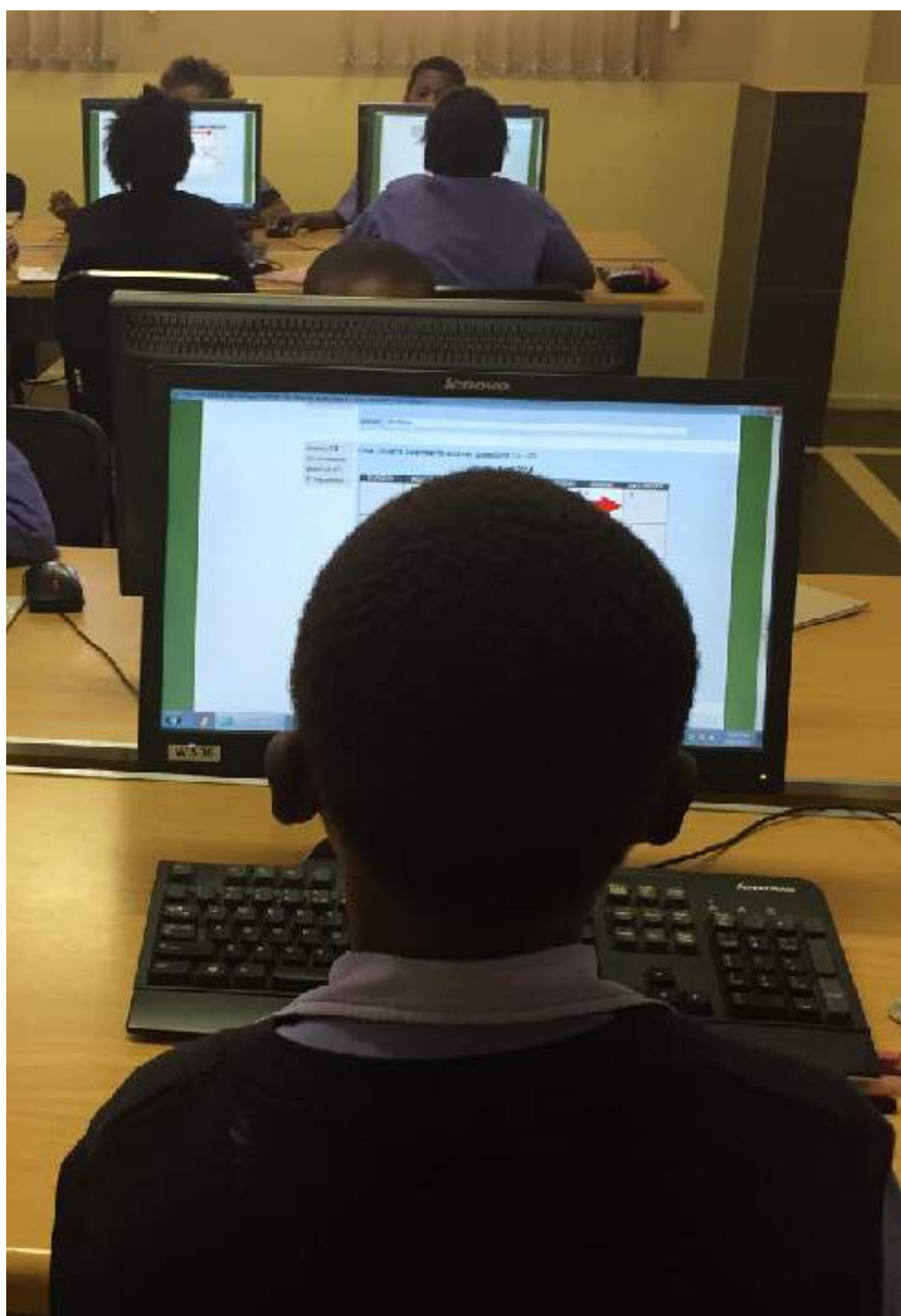
Thanks to its main donor, the Human Dignity Foundation, they have supported 8,427 learners, 152 teachers in 16 schools and created 16 youth development posts.

Poverty and unemployment were the norm in the Cape Town flats area and made the future seem dim yet Mzamomhle Primary school saw a **jump from 0,6% in 2011 to 33,1%** in 2015 of their results in Maths WCED Systemic tests thanks to Greenshoots.

For Greenshoots co-founder Jo Bedford, the importance is to work with the **warmware** (more than the hardware and software, it is the people that matter): nothing can work without the necessary training enabling a change of mindset and the sustainability of the project.

In order to improve the efficacy of the programme, **a person from the local community is trained** and stays in the school to help the teacher to prevent them from struggling with the technical parts. Their model works through hardware donation as well as with schools that have already rolled out devices. Schools have to pay a yearly fixed fee (the number of users doesn't matter). Since the programme started, there has been continuous enthusiasm for staff and students alike.

(1) Green Shoots



Green Shoots, Mzamomhle Primary School

Greenshoots shows us that even in the most underprivileged townships **real-time data** is possible and very critical to understanding where the students struggle.

There is no need to think high-tech when you often don't have the basic infrastructure or training. In this case, the simple fact of visiting the computer room and typing on keyboard is a **huge engagement factor** for those kids who don't have access to any devices at home.

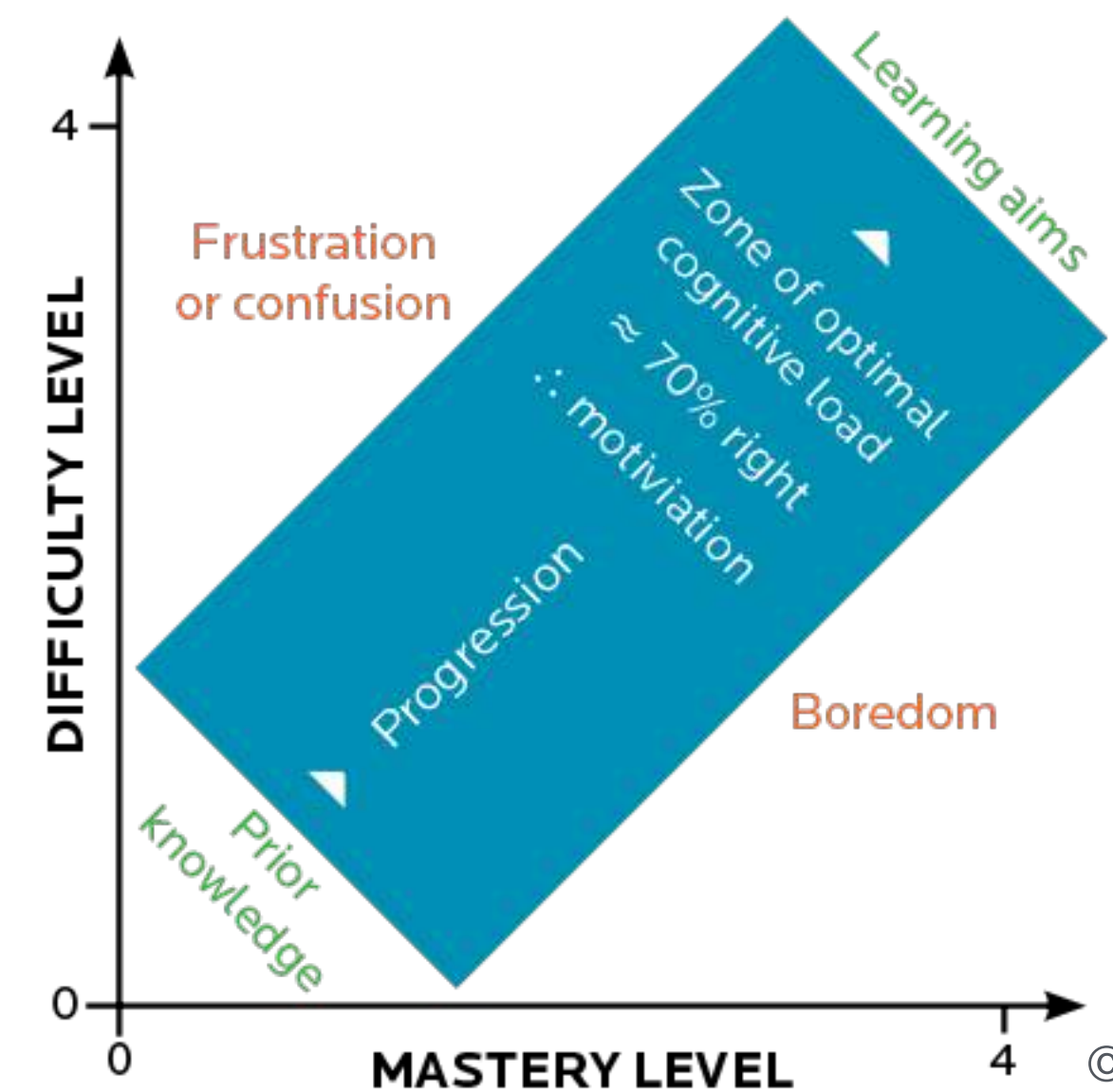
It is very important to train technical teaching assistants (TTAs) capable of supervising the computers and the functioning of the software so that the class can take place seamlessly, without inconvenience. It comes as an extra cost for the school but surely one you can assert looking at the **sustainability** of the programme.

(2) Siyavula

Historically working on Open Educational Resources (OER), the conviction that everyone should have access to the basic resources that they need to achieve their education is at the heart of the Siyavula project. The company aims at **maximizing technological reach**, ensuring that nothing prevents people from accessing meaningful content. They started by harnessing the collective power and diverse insights obtained from a large group of volunteers and contributors, from different backgrounds and contexts to write textbooks but they are now focusing on an impressive adaptive mobile-based platform.

They created a learning experience called “Intelligent Practice” that uses adaptive technology which algorithm adapts each practice session to the needs of every learner by sequencing and determining the optimal difficulty level to promote the greatest learning outcomes.

To make their technology, Intelligent Practice, as accessible as possible, Vodacom zero-rated the website for any owner of a Vodacom simcard to access their software on mobile without incurring data or airtime costs. In conjunction with the Vodacom Mobile Education Programme, Siyavula provides access to their tool to grades 10 to 12 mathematics and physical sciences learners in nearly 80 government high schools throughout South Africa, in order to address the issue of data and airtime costs associated with online programs.



(3) Code X

Programmers are in high demand and in critically short supply in Africa: there's a sense of urgency to build the continent's digital future for people to be able to **reap the fruits of the startup economy**.

CodeX CEO Elizabeth Gould, a veteran technology and innovation journalist, is behind the 3-month programme that aims at moving away from top-down solution for economic development and focuses on building the technical talent that currently lacks in the country.

The method of teaching and learning itself is a **self-paced curriculum that relies on the agile methodology**. Beyond practical knowledge and building a portfolio of “real projects for real companies”, the programme aims at bridging the cultural gap for people who can be ‘first generation urbans’ as well as at creating a safe space.

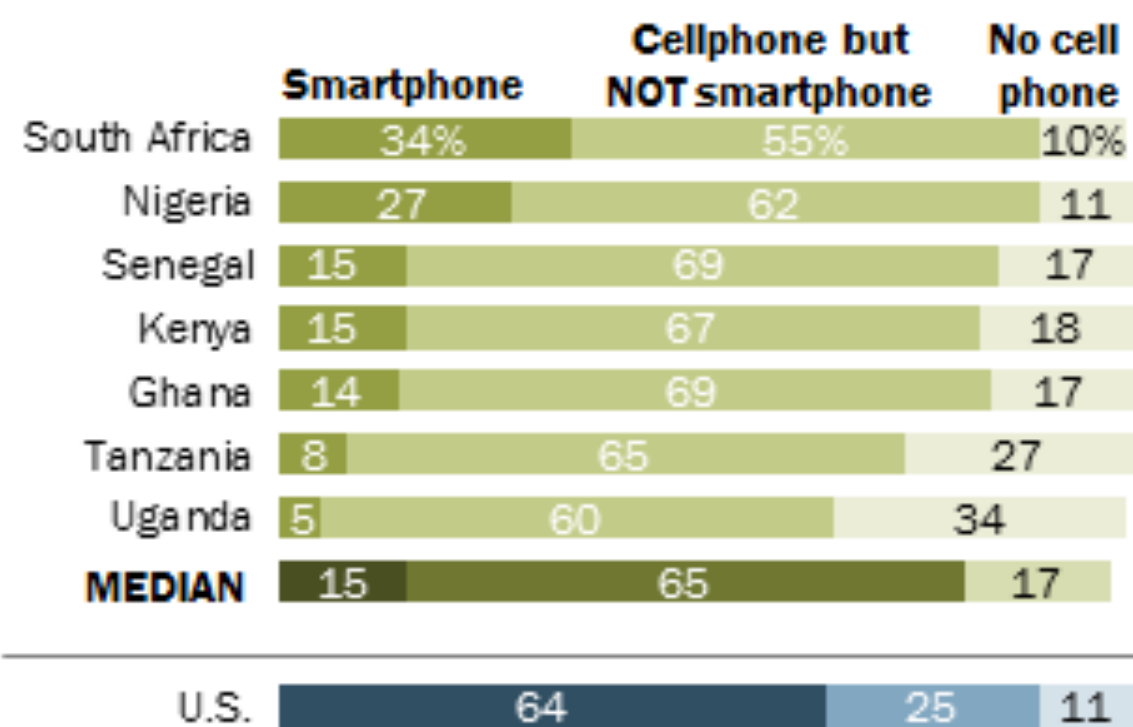
CodeX selects its coders thoroughly and provides them with loans to cover the fees (1.400€ per term for 3 months) that they will only have to repay when they get a job (the programme is very **geared towards employability** and the idea for those students to pay it forward and help the next generation through a strong brand building strategy and alumni network).



(4) Rethink Education ⁷⁴

Few Own Smartphones in Africa, But Cell Phones Common

Do you own a cell phone? Is it a smartphone?



Note: Percentages based on total sample. U.S. data from December 2014 Pew Research Center surveys. Median percentage excludes the U.S.

Source: Spring 2014 Global Attitudes survey, Q68 & Q69.

PEW RESEARCH CENTER

The Rethink Education platform uses the same web and mobile technologies students use every day. It delivers educational content broken down into ‘bite-size bits’ and is presented through a social network style, chat interface aligned with the South African school curriculum.

The Cape Town-based company focused on the South African high school market and making current technology more useful in the schooling system and can be used to complement the teaching of core Maths and Science concepts, both in and out of the classroom.

Their recent **shift of focus regarding the user experience** they’re building is aligned with the rise of internet-enabled devices. According to CEO Doug Hoernle, “you can’t build things for feature phones anymore because the ratio of smartphone is increasing and people are demanding new experiences.”

Rethink Education has a typical **freemium business model**: for their maths and science platform, the start-up partners up with schools and sells the platform to them at R300 (20\$) per user per year with some incentives when they have more than 200 students on the platform.

Most of the schools they work with approach the parents to pay for this extra resource at only R300 (20\$) per year for maths and science. For foundations and lower income schools, Rethink Education approaches corporates to sponsor their user licences.



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Team

76



Audrey Jarre

77

Innovation Consultant, Bluenove

Audrey graduated from a Master's of Research in Innovation and Design Management at HEC Paris & Ecole Polytechnique (Master PIC). She is passionate about cultural biases in our education systems and literature. After working on the Lab School Paris project at the Liberté Living Lab, a civic & social innovation incubator located in Paris, she is now working for innovation & collective intelligence consultancy bluenove.

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Svenia Busson

78

Edtech Explorer & Entrepreneur

Svenia is an explorer and entrepreneur in the Education Innovation field. She is the head of LearnSpace, a 2.0 Edtech accelerator, where she wants to bring bright entrepreneurs, teachers and researchers together to build the future of education. She still continues to travel for the Edtech Tours every year to share best practices and contribute to a thoughtful use of educational technologies. She studied both at the Freie Universität Berlin and HEC Paris.

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79



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Thank You!

Go Further With These Resources

USA:

Digital differences 2012 Report: <http://www.pewinternet.org/2012/04/13/digital-differences/>
 ConnectED initiative: <https://www.whitehouse.gov/issues/education/k-12/connected>
 Pearson Student Mobile Device Survey 2014: <http://www.pearsoned.com/wp-content/uploads/Pearson-K12-Student-Mobile-Device-Survey-050914-PUBLIC-Report.pdf>
 Digital Promise Research: <http://digitalpromise.org/initiative/research-home/>
 Learning Infographics: <http://elearninginfographics.com/timeline-of-educational-technology-in-schools-infographic/>

Chile:

Human Resources Development Working Group 2012 Statistics: Human Resources: http://hrd.apec.org/index.php/Education_in_Chile
 Educacion 2020: <http://www.educacion2020.cl>

New Zealand:

ICEF Monitor: <http://monitor.icef.com/2015/07/new-zealands-international-enrolment-up-13-in-2014-growth-continuing-this-year/>
 NZ Tech: <http://www.nztech.org.nz/who-we-are/communities/edtech/>
 Ministry of Education Annual Report 2015: <http://www.education.govt.nz/assets/Documents/Ministry/Publications/Annual-Reports/MOE-Annual-Report-2015.pdf>

Australia:

DAEG Report: https://docs.education.gov.au/system/files/doc/other/deag_final_report.pdf
<https://www.education.gov.au/technology-schools>
<https://www.studentsfirst.gov.au/restoring-focus-stem-schools-initiative>
https://www.acer.edu.au/documents/PISA2009_PreparingAustralianStudentsForTheDigitalWorld.pdf

India:

2014 Annual Status of Education Report (ASER:) <http://img.asercentre.org/docs/Publications/ASER%20Reports/ASER%202014/National%20PPTs/aser2014indiaenglish.pdf>
 KPMG Edge Report, 2012
 Kaizen & INSEAD EdTech in India: <http://www.kaizenpe.com>
 Kaizen Education Report (India): <http://www.kaizenpe.com>

Korea:

“e-learning in korea” report from the Innovation Centre Denmark : http://icdk.um.dk/en/reports/~~/media/icdk/Documents/Seoul/E-LEARNING_report.pdf
 The flipped classroom experiment in Korea by Michael Horn: <http://www.forbes.com/sites/michaelhorn/2014/03/25/busan-schools-flip-koreas-society-classrooms/#fe2cf1ec7bbf>
<http://www.forbes.com/sites/michaelhorn/2014/03/25/busan-schools-flip-koreas-society-classrooms/2/#24322425efdd>

South Africa:

Western Cape Department of Education (WCED): <https://www.westerncape.gov.za/elearning>
 UNESCO 2011 EFA Global Monitoring Report: <http://unesdoc.unesco.org/images/0019/001913/191393e.pdf>
 Pew Research Center, April, 2015: <http://www.pewglobal.org/files/2015/04/Pew-Research-Center-Africa-Cell-Phone-Report-FINAL-April-15-2015.pdf>
 Department of Basic Education, March 2015, Education Statistics 2013: <http://www.education.gov.za/Portals/0/Documents/Publications/Education%20Statistic%202013.pdf?ver=2015-03-30-144732-767>