Energizing the potential of all learners

Yidan Prize Conference Series
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Stanford Graduate School of Education
Stanford Accelerator for Learning
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A theory of change – part 2

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  - Dr Condoleezza Rice
    Stanford University

About the Yidan Prize Foundation and Yidan Prize

About the Stanford Accelerator for Learning and the Graduate School of Education, Stanford University
Welcome

This collaboration between the Stanford Graduate School of Education, Stanford Accelerator for Learning, and Yidan Prize Foundation brought together education scholars and creative leaders who are advancing and accelerating solutions to the most pressing challenges facing learners. By combining the power of university scholarship with public, private, and social sector partners and communities, we can realize learning innovations where they are most needed.

Panel discussions focused on research and ideas that address under-resourced learners, early childhood learners, and those with learning differences. Solutions for these groups carry the most promise for benefiting all.

This event was an opportunity to strengthen collaboration and expand connections in pursuit of taking innovations in learning further and faster. We thank all our participants for offering important insights and perspectives as we create the future of learning together.

Professor Daniel L. Schwartz
I. James Quillen Dean
Nomellini & Olivier Professor of Educational Technology, Stanford Graduate School of Education

Dr Charles CHEN Yidan
Founder
Yidan Prize
Executive summary: thinking smarter and faster about learning

For every challenge we face when it comes to improving education, there are many potential solutions. But how do we make sure we're developing the best ones—and as quickly as possible?

We brought together thought leaders from across sectors and disciplines, to present bold solutions for a better future

Our panels tackled questions like:

- How can we improve educational access for marginalized communities?
- Why should we invest in early childhood learning and development?
- And how do we make sure learning differences don't limit opportunities?

Among the distinguished guests debating the issues were cross-disciplinary experts from Stanford University and members of the Yidan Prize Foundation's Council of Luminaries.

Speakers included Dr Rukmini Banerji, Dr Patricia Bromley, Ms Vicky Colbert, Professor Carol S. Dweck, Professor Usha Goswami, Professor Eric A. Hanushek, Mr Sal Khan, Professor Patricia K. Kuhl, Professor Bruce McCandliss, Ms Angeline Murimirwa, Dr Jonathan Rosa, and Professor Daniel L. Schwartz.

And we discussed how a theory of change can drive the future of learning

Our panels shared strategies for taking innovative ideas and scaling them for maximum impact. They were joined by keynote speaker Professor Philip Fisher from the Stanford Graduate School of Education, and moderator Dr Condoleezza Rice, director of the Hoover Institution at Stanford University and former US Secretary of State.

Speakers and panels are featured in order of appearance.

Get the highlights or re-watch the sessions

Read on for highlights from our keynotes and panel discussions, or re-watch the sessions in full on our website.
Marc Tessier-Lavigne, President, Stanford University

President Tessier-Lavigne opened the conference by discussing our mission to make learning more equitable, accessible, and effective. He emphasized the need for a student-centered approach to learning, as well as the need for contributions from across disciplines in order to open new areas for exploration and new solutions to learning challenges.

As we look to the challenges in education today—and those we anticipate in the decades to come—it’s clear that research universities must be leaders in applying the science of learning to building educational systems that achieve these aims. President Tessier-Lavigne pointed to some of the ways that researchers from the Stanford Graduate School of Education and the Stanford Accelerator for Learning are working with partners to uncover new insights into how humans learn and leverage technology to create new educational pathways, with the potential for broad impact.

Speaker
Professor Daniel L. Schwartz
I. James Quillen Dean and Nomellini & Olivier Professor of Educational Technology, Stanford Graduate School of Education

“Education...is an investment by society for society.”

Professor Daniel L. Schwartz
Professor Daniel L. Schwartz opened his keynote with a powerful image: children excited by learning. It was a reminder of how important education is to change lives. And a way of demonstrating that the conditions for positive change in education are already in place.

For Professor Schwartz, those conditions include data, technology, and an increased appetite for evidence. We can track and spot students falling behind. We can introduce ways of teaching that barely existed a few years ago—like Professor Carl Wieman’s PhET Interactive Simulations. And we can put to bed the traditional approach that says: “I did it that way and I turned out okay”.

Professor Schwartz also memorably used an example of AI writing vs human writing to show that, in a fast-changing world, we need to adapt not just how but what children are learning. Mastery, he said, is not the right paradigm—we can’t predict what people will need to know. So we need a different approach.

To move forward, we need to harness the work of universities and make sure the latest research strongly influences practice. Toward this goal, Professor Schwartz set out three things we need: a student-centered approach, a combination of science and design, and partnerships.

Professor Schwartz closed his keynote by reminding us we’re at an ‘inflection point’. The pandemic, natural disasters, technology, and population shifts are all going to change the landscape of education. Strong partnerships, such as the shared optimism of Stanford University and the Yidan Prize Foundation, will help us meet that change.

A welcome from our Founder

Dr Charles CHEN Yidan, Founder, Yidan Prize

Dr Chen opened his welcome by expressing his delight at the foundation’s partnership with Stanford University, to shine a light on essential issues in education.

For Dr Chen, big ideas inspire change. He illustrated this with four themes that emerge from the work of our laureates. Firstly, he emphasized that inclusive, quality education is a must—it’s the key to sustainable development. Second, we must recognize that education begins at birth, well before children start school. Third, for children in school we must make sure no-one is left behind. Finally, we need to recognize that collaboration sparks unlimited possibilities.

Dr Chen emphasized Stanford University’s strong history of investment in the future, such as supporting tech start-ups. And he described how the foundation works with the global education community to help scale innovation and transform learning.
What we mean when we talk about inclusion

Professor Eric A. Hanushek drove home the importance of skills and education for global development. With his colleagues, Professor Hanushek aims to predict the percentage of the global population who aren’t equipped to participate in modern life. He pointed to a broad test for this: whether, by 15, a student can carry out a straightforward currency conversion. The vast majority can’t. That includes not just the third of 15-year-olds around the world not in education, but 60% of the ones that are. In the Q&A, he clarified that the reason it’s such a powerful example is that it’s not about solving the problem—or drilling teenagers in certain equations—but that being able to solve it indicates having the problem-solving skills needed for participation in modern economies.

Professor Hanushek also spoke about the setbacks of the pandemic, pointing out that even if we got back to 2020 learning levels—and we haven’t yet—any child in school during the pandemic stands to lose 6-9% of their lifetime earning potential already.

“The only thing that affects long-term economic growth is the skills of the people. Period.”

Professor Eric A. Hanushek
“I’m not sure we want to go back to the pre-pandemic era. Even then the system was fraught with inequality. We still had millions of girls out of school. We need to build forward better.”

Ms Angeline Murimirwa

Ms Angeline Murimirwa talked about two types of exclusion that affect the most marginalized learners. The first is obvious: never making it into school at all. The second is more subtle: exclusion within school. She described various ways this can go undercover: when students (like herself when she was a girl) are ashamed of their family circumstances, and therefore “hide away,” unable to engage in the classroom; when students miss school due to home pressures or natural disasters but the overworked teacher with the huge class can’t spare the time to catch them up; and when students are ‘sitting but not hearing’—because the curriculum doesn’t feel relevant to their daily lives. In the Q&A, she reinforced this point, talking about the challenges for African students being required to learn in English, rather than in their local languages—how disruptive it is to learning having to figure out the words teachers are using before understanding the concepts behind them.
This also undermines the value of those languages and other indigenous knowledge, and it's detrimental to assume that just because a child can speak in English, that means they're learning well.

Ms Murimirwa was keen to add a positive note too. She talked about how CAMFED is ensuring that girls who face all these challenges are seen and heard, and supported both financially and socially to stay in school. The organization has built a community support structure around vulnerable children, led by young women graduates themselves from vulnerable backgrounds, who bring their expertise back into the classroom as “Learner Guides.” They deliver a relevant skills and wellbeing curriculum, helping students navigate barriers within and beyond the classroom. As relatable role models, these young women build students’ confidence and motivation, pushing up learning outcomes. CAMFED’s holistic approach has already seen great results, with supported students three times less likely to drop out, and enjoyment of school ‘through the roof’.

For Professor Carol S. Dweck, results from their school workshops and teacher training interventions show growth mindset has a role to play in inclusive education. She described the results of the 2018 PISA survey which showed that challenging the idea that intellect and ability are fixed doesn’t just predict greater attainment across the board—it specifically starts to close gaps between different groups of students.

Professor Dweck also highlighted the fact that another important learning: context matters. When students go back into a classroom where the teacher has a fixed mindset, they lose any gains they’ve made from working on their own growth mindset in workshops. Professor Dweck and her colleagues have been working on teacher-focussed programs that also show promise. When teachers adopt growth mindset practices, it reaches students. More students report being respected and valued, and anxiety levels go down. Results from the first pilot program were strongest for students from underrepresented groups. So the team is now working on ways to scale the program at low cost.

“In many of PISA’s 79 cultures or economies, a growth mindset... decreased the achievement disparities between girls and boys, low income and higher income kids, and children from immigrant vs non-immigrant families.”

Professor Carol S. Dweck
Bigger picture thinking came through strongly from Dr Jonathan Rosa. He talked about redefining what we think about teaching, curricula, and what counts as a skill. And raised questions around policymaking, asking if monolingual policymakers should think of themselves as solving problems for multilingual students. Especially since, even though we think of it as a problem that 10% of US students are classified as ‘English learning’, language learning has historically not been a problem for humanity.

A US-based researcher, Dr Rosa pointed out domestic issues around covid statistics, incarceration rates and energy use relative to the population size, as a way of illustrating how influence on global policy can be unequal. In the Q&A, he emphasized a need for local and community-centered approaches.

“We have to be careful about getting back to normal, because that normal produced this crisis in the first place”.

Dr Jonathan Rosa

Dr Patricia Bromley followed Dr Rosa’s thoughts by giving more context to policymaking. She described her work with colleagues building a comprehensive database of education policy reforms: over 10,000 dating back to the 1970s available at https://www.werd.world/. From it, they’ve found four reasons why policies spread. The first reason is that popular policies sometimes serve the interests of dominant elites, which sometimes serves to perpetuate inequality. The second is to do with what Dr Bromley calls an ‘engineering’ or ‘economic’ model. She illustrated it with Professor Dweck’s work, showing how accumulating evidence for a successful intervention helps it spread. This makes an interesting partner to the third point: that one of the single biggest determining factors in whether a country adopts a policy—even outside education—is whether its neighbours have adopted it. In the real world, we’ll never have enough firm evidence on which to base such a detailed decision, so policymakers are heavily influenced by who else is adopting a policy they’re interested in. And finally, policy spreads where there’s strong cultural belief in it. The multiple explanations for why policies diffuse should lead us to be cautious of seeing scale as the primary measure of education reform; effectiveness isn’t the only reason a policy spreads and an over-emphasis on scale can lead us to ignore the values embedded in reforms and overlook the views of diverse and marginalized groups.

In the Q&A that followed, the panel tackled questions such as balancing different ways of measuring learning, making learning more engaging, the impact of informal learning environments such as YouTube, and the role of parents and governments in education.

“We should not always equate scale with success. Things spread for many reasons other than because they work. And it doesn’t tell us about the values that are embedded in them.”

Dr Patricia Bromley
Learning from day one, and the importance of early childhood development

For this panel, **Professor Patricia K. Kuhl** opened with a reminder that “the magic of early learning and brain development is the new rocket science”. She galvanized the room with exciting new studies from the world of infant neuroscience. While one focussed more on language acquisition and the other on social exchanges, both demonstrated how early interactive experiences build a child’s brain architecture, with lifelong effects. With positive inputs, we can set them up for empathy, resilience, and learning—giving them a blueprint for their future.

Professor Kuhl emphasized the malleability of the brain—and the ways that experience literally shapes brain structure in children. It suggests that, with the right information, parents can change their approach, and change children’s lives. She also talked about the ‘magic’ of the social brain, and how we see ‘neuro synchrony’ in parents and children who interact positively together—that is, their brain activity mirrors each other. That might be the key to understanding how we bond with and learn from others over our whole life.

“The engine driving a child’s future lies in the child’s brain and its potential for learning... We are the activators of that potential.”

**Professor Patricia K. Kuhl**
“We live in an age where we have unprecedented insights into what binds us together as human beings... And we’re all billionaires: 80 billion neurons inside your very own cranium that you own that are you.”

Professor Bruce McCandliss built on this by sharing his thoughts on the evolution of neuroscience and our richer understanding of how and why education is one of the most transformative forces in human life. He talked about how the studies Professor Kuhl raised showed that the unique learning architecture of the human mind is not enough in and of itself—we’re profoundly affected by our social lives and educational opportunities. And it’s a fundamental shift in how we look at brain science and learning that we now know that these have a causal effect on human development.

On top of that, neuroscience has made its way out of the lab. Across the US, brain scan projects are mapping how children’s minds develop at school and how inequities shape brain architecture from 4th grade to high school graduation.

(From left to right) Professor Bruce McCandliss, Dr Lisa Chamberlain, Ms Susan Bipa, Dr Rukmini Banerji, Professor Patricia K. Kuhl
Dr Lisa Chamberlain’s paediatric practice is in an area of California known for its high poverty rates—yet it’s an area where she experiences endless resilience, safety, and a warm welcome. She described how her clinic offers many opportunities to strengthen language and learning for children who are being raised in loving, engaged, but resource-strapped settings. In the Q&A, one example she gave was being able to text suggestions for play-based learning to their patients’ caregivers. Her particular interest: tapping into the vast possibilities of bringing the different disciplines around her—like neuroscience and play-based learning expertise—into the clinical setting for a cross-discipline approach.

She also outlined what her work has shown makes a good environment for early development. In the middle is the child and the family—where predictability, consistency, and routine are key. Beyond that is the safety of the neighbourhood and its environmental health. And outside that the community: resources, faith-based groups, recreational and green spaces, shopping centers. Wrapping around all of these is the structural context and the political choices that determine access to affordable food, secure housing, and quality education.

Ms Susan Bipa explored the universal principles of child development: the right to play, safe physical environments, and physical and social interaction. Through her work with BRAC, she has seen first-hand the impact of a low-cost, high-quality, play-based curriculum for early years. She described the way teams in Tanzania, Uganda and Bangladesh have adapted programs to keep to core principles but make learning locally-relevant and culturally appropriate.

Those aren’t the only ways in which ‘universal’ differs from ‘the same everywhere’; Ms Bipa gave the example of how all BRAC play spaces use sustainable local resources for materials, but that differs from place to place: banana in Uganda, bamboo in Bangladesh, coconut in Tanzania. And those spaces might be in government settings such as primary schools, standalone locations in communities or be run by play leaders acting as micro-entrepreneurs. That flexible, adaptive approach is how BRAC is influencing governments to make large-scale interventions for early years. Thanks to the organization’s work, anyone opening an early childhood development program in Tanzania now has to use a child-led, play-based learning curriculum.

“The trans-disciplinary work that we could do with neuroscience, with early childhood development is a real opportunity that we have not yet tapped.”

Dr Lisa Chamberlain

“What is universal in child development? ...The right of the child to play.”

Ms Susan Bipa
Dr Banerji focussed on the power of community and family to help children grow and thrive. She particularly highlighted that mothers are gaining experience and exposure to early learning principles, and how this has the potential to have a powerful effect on early development—particularly when we can bring mothers and children together in groups.

In the Q&A that followed, the panel tackled questions such as advocating for children with disabilities and learning differences, managing budget constraints, dealing with the pros and cons of technology, engaging parents, and evaluating emotional support. They also elaborated on the theme of removing the disconnect between early, informal learning and formal schooling.

“On page 7 of the new Indian education policy it says if you don’t have a strong foundation by the time you’re in grade three, then the rest of the policy is irrelevant.”

Dr Rukmini Banerji

“Often parents who themselves did not get much education are keen to give their children every opportunity to get schooling. Sometimes this leads them to enrol children in formal schools at a very early age.” Dr Rukmini Banerji explained that it is therefore important to have the appropriate provision and activities for young children. India’s new education policy focuses on strong early foundations and she stressed the age group 3 to 8 should be seen as a continuum, in which children build a “breadth of skills.”

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Making room for learning differences in education systems

Ms Judy Heumann brought her lived experience of growing up in US after having polio—at a time when there was no right to education for disabled children—to the panel. Her focus was on the legislative and funding shifts that have started to move things in the right direction, but also on the ways that progress is still lagging behind.

She described how disabled children are now by and large in school, but there’s lots still to do to tackle hidden exclusion—such as of children from minority groups whose emotional disabilities see them excluded from classrooms. From Ms Heumann’s perspective, conversations about including disabled kids are not happening at the same level as they are for other groups. She also questioned how we can better take what we’re learning from research and apply it around the world.

“We need to really be insisting, not just in the disability community but in the field of research and education in general, that when we talk about education we’re talking about all children in education. We’re not talking about waiting until non-disabled children succeed in learning and then we’ll dip our toe into meaningfully including disabled kids.”

Ms Judy Heumann

Speakers
Professor Usha Goswami
Professor of Cognitive Developmental Neuroscience, University of Cambridge

Ms Judy Heumann
Disability Rights Activist

Professor Elizabeth Kozleski
Professor (Research), Stanford GSE

Dr Seena M. Skelton
Director of Operations, Midwest & Plains Equity Assistance Center, Indiana University School of Education at Indiana University–Purdue University Indianapolis

Dr Dennis Wall
MD, Professor of Pediatrics (Systems Medicine) & Professor of Biomedical Data Science, Stanford School of Medicine

Moderator
Ms Charlotte V. McClain-Nhlapo
Global Disability Advisor, World Bank Group
“When we talk about policy, research, and practice, for me these are the three legs of a stool that really holds up our education system.”

Dr Seena M. Skelton

Context is key, and Dr Seena M. Skelton asked the room to challenge the lens with which they look at the intersection of policy, research, and practice. She highlighted the cyclical nature of the three pillars and how they influence each other. But she also spoke about the barriers to progress, and why we need to critically examine what informs and directs them. There is a long history of research born out of colonization and oppression, and without acknowledging that history we can’t ask essential questions around what drives and informs education discourse.

Dr Skelton also pointed out that we narrow our scope for challenging marginalization if we don’t pay attention to the conditions that create it. For example, if we call some children ‘at risk’—usually children who are not white—and design and test interventions to fix them, we’re reinforcing the systems that prioritise white and able-bodied children. She also reflected that policy on paper and policy in practice can often be two different things—and we need to be alert to the difference.
Dr Dennis Wall's work focuses on early autism diagnosis, using AI-based technology aimed at shifting the age of diagnosis from around 5 years old to infancy. He talked about how, at this critical stage, education and treatment are effectively one and the same thing. And the sooner children have access to therapeutic programs, the bigger the difference in outcomes.

He also talked about taking diagnosis and treatment out of a clinical setting. Broad access to technology puts more agency in the hands of parents and other care providers, as well as doctors, so communities around children with autism can support them as they grasp the opportunity to learn skills that will help them thrive.

“There is a window of opportunity where therapeutic programming can be very impactful for children to the point where 25% or more might progress to a level where they no longer qualify for an autism diagnosis.”

Dr Dennis Wall

Professor Elizabeth Kozleski opened up the discussion to look at how disabled children fare in classrooms—and which kinds of classrooms promote quality, inclusive education for all.

She described her recent study across three US states where children with significant learning needs were placed in either a classroom of similarly disabled peers, or with general education classes. Children in more mainstream schooling performed significantly better—and their non-disabled peers gained more insight into their own learning. It transformed mindsets, changing the minds of teachers who had thought that the disabled children wouldn't be able to learn. The study helped build relationships and reciprocity between all children, offering compelling evidence that inclusive classrooms are better for everyone.

“When we move from a curriculum focus to a learning focus in classrooms, we expand the opportunity for everybody that's in that classroom to really learn and grow in profound ways and that enhances our capacity as we move into adulthood to be much more accepting of the diversity of kids and adults who could learn and work side by side in communities.”

Professor Elizabeth Kozleski
"Where neuroscience can make a big difference is in helping us understand how differences in children’s sensory systems cause differences in their cognitive systems.”

Professor Usha Goswami

For Professor Usha Goswami, learning environments are critical. With what we learn from neuroscience about how learning happens, we can shape those environments, change curricula, and influence parenting to enhance children’s learning paths—opening their access to the rest of their education.

She talked about how neuroscience unlocks the link between sensory and cognitive systems: babies learn through their senses and in turn build systems like language and attention. We now know rhythm patterns are key to processing speech and reading, and children with dyslexia can’t hear speech rhythm as clearly as their neurotypical peers.

Professor Goswami illustrated how dyslexic children aren’t well served by traditional approaches using example of colorblindness, where red/green blindness is the most typical form: if a child had to make decisions about red vs green in school every day, they wouldn’t perform as well as children who weren’t colorblind. So we need to change our approach and shift to more personalized learning that respects differences in how brains work.

In the Q&A that followed, the panel tackled questions such as reinforcing the agency of disabled children, how to get research into policymakers’ hands, and preparing teacher to make inclusion interventions more successful.
Keynote: A theory of change – part 2

Professor Philip Fisher opened his keynote by reflecting on three significant themes from the day’s discussions. Firstly, that relationships—between children and parents, teachers, and other children—are where learning is cultivated. Secondly, that systems are critical. They’re where many of the structural inequities we need to challenge lie. And finally, that if we really want to focus on learning, then we need to move away from thinking about the curriculum and instead focus on individuals and variation.

In Professor Fisher’s view, we’re on the cusp of a new scientific revolution—but there are still actions we need to make if it’s going to have a full impact. Science is helping us understand how learning happens across our entire lifespan. It’s also helping us look beyond the old ‘black box’ method of education, where we put our resources into what made reading or math better. We can now think more broadly to design strategies that have the greatest potential for positive outcomes among all individuals, across all countries, income levels and circumstances. And we can act to reduce risks caused by systemic inequities, beginning to narrow achievement gaps.

He also addressed the impact of the pandemic and the damage done to development by living through chronic unpredictability—something children and families will still grapple with as we live through geopolitical conflicts and climate change. There have been tremendous losses in learning and progress. So any scientific revolution needs to address this ‘new normal’.

"We need to imagine a world in which science and innovation are coming together to produce unprecedented impacts and scale that we have not seen before. In order to achieve this, we need to create spaces in which science and innovation can flow together in order to accelerate the transformation in education.”

Professor Philip Fisher
Professor Fisher talked about observations from his work with children reared in neglectful environments. Children from these backgrounds often struggled to take in feedback—likely because of a lack of consistent input as their brains developed. But, Professor Fisher explained, it’s possible to design interventions—sometimes very straightforward ones—that activate the brain’s ability to keep developing, known as plasticity. And in doing so observe much more typical brain function over time.

He also reinforced ideas mentioned throughout the day on thinking more broadly and collaboratively. For example, learning doesn’t just take place in academic environments. We should think about places like laundromats or doctors’ offices—or anywhere else children could experience learning outside their classroom or home. Because while science is good at finding out why things are happening and even help us devise strategies to close gaps, it isn’t as good yet at disseminating knowledge and ideas in ways they can be most useful.

Scale is not just about ideas going big: ideas have to make a difference. Scale also doesn’t have to be global; it can mean a particular context: a community, state, or country.

In Professor Fisher’s view, we also need to stop thinking about research as proof something works, but look at it as a continual system of improvement. We need the worlds of science and education to work together accelerate transformation—or we simply won’t see the impact of the revolution.
To begin with, Professor John L. Hennessy tackled the question of why technology hasn't helped us make more progress—yet. He talked about how the problems are more complex than we thought, and massive open online courses (MOOCs) exposed how not all learners learn the same way. It's also very hard to do experiments in the education sector: it's ethically complex working with children, and you have to wait years for results. So with technology we have to focus on building more adaptive systems.

He also expanded on why we need to teach problem-solving skills, rather than solutions. We're looking to a future where students won't just do a single job for life, and where—especially in Professor Hennessy's field, computer science—information becomes obsolete fast. So we need to prepare students to ongoing learning.

“If students are afraid to go into a new field, they’re going to be paralysed in their careers. We tell students now: your life isn’t one career anymore. Not just different jobs, but different kinds of work. And we need to prepare you for that kind of learning.”

Professor John L. Hennessy
Dr Candace Thille built on this theme, agreeing that we need to teach people to continually learn and upskill. She highlighted the power of data. When people first thought about technology, she said, they assumed it was just a question of access, and that education is fine. But the power of technology for Dr Thille is not in pushing out information, but in observing the learner.

She expressed that human cognition can’t make the kind of fine-tuned decisions about intervention at specific moments that we need to really make progress. But it’s not beyond the power of algorithms to support human decisions—even if they haven’t done it yet.

“To really understand human learning we need to understand features about the learner, features about the thing being learned, and features about the context in which that learning is occurring.”

Dr Candace Thille
“Educational systems are hard to transform, so we made the school the unit of pedagogical change to slowly influence the system through a bottom-up process.”

Ms Vicky Colbert spoke around tackling issues by thinking systemically from the start. “When you have so many problems you are forced to think systemically.” “The Escuela Nueva model is one of the longest running bottom-up innovations of the developing world.” She believes that’s because they had to think about making it viable from the outset, politically, technically, and financially from the start. She stressed that, essentially, there was nothing new in the philosophy: child-centred, active participation is over 100 years old as a concept in education. But where Escuela Nueva cut through was by transforming complexity into simple, manageable access. And making it easily replicable, scalable and cost effective. We emphasized active, participatory, personalized and cooperative learning and a new role of the teachers as facilitator and guide. We have learned that we have to work with governments if we want to have impact and coverage but we have also learned that in order to have quality and sustainability we have to have learn to partner with the private sector and with civil society.
Khan Academy, Mr Sal Khan’s online platform, naturally saw a huge uptake during the pandemic. But, as he pointed out, learning loss is not a new thing. He set out a four-stage process to using technology to transform education: first you need it to be accessible, then people need to be aware, then it must be engaging, and finally, of course, it has to work.

Mr Khan has plenty of evidence that for those who are aware and engaged, it does work. He gave the example of math students putting in just 30 minutes a week on the platform over the school year. They grow 50% more than students who don’t. Why? Because classrooms don’t always engage. They don’t always allow time for mastery, or catching up. He also observed that this learning loss is a long-time problem, but it’s only now, post-pandemic, that people are really talking about it. It’s galvanized conversation, and drive to progress.

“There are many tools and interventions where you can allow students to learn at their own time and pace, to get that mastery... we can’t wait a decade or two decades to create a safety net for the world.”

Mr Sal Khan
“If we want to bring multidisciplinary sciences into effective, feasible, scalable and sustainable practice, we need to design deep and balanced research-practice partnerships that leverage the expertise that researchers, educators, and community each bring as parts of the full solution.”

Dr Brooke Stafford-Brizard

For Dr Brooke Stafford-Brizard the disjointed nature of our systems is a real cause for concern. She cited a number of the day’s speakers, drawing on examples to show how what we know and what we do don’t match up. She pointed to Professor Kuhl’s examples of the value of interaction and co-regulating—yet when children act out in class we exclude and isolate them. For Dr Stafford-Brizard, we build progress on the back of deep and balanced research-practice partnerships that respect the essential contributions on both sides of the equation.

She also cautioned putting the problems of unequal systems onto the shoulders of a child or a teacher. She talked about Professor Fisher’s examples about children who experience neglect: it would be easy to simply observe brain development issues. Instead, we can look at the wider system and take action that shows the brain is malleable—no longer putting the pressure on the child, but on the environment around them.

In the Q&A that followed, the panel tackled questions such as any unexpected learnings from the pandemic, ways to find early indicators of impact so we can quickly iterate ideas, and protecting students’ data.
Co-hosts at a glance

Yidan Prize Foundation and Yidan Prize

Founded in 2016 by Dr Charles CHEN Yidan, the Yidan Prize Foundation has a mission of creating a better world through education. Through its prize and network of innovators, the Yidan Prize Foundation supports ideas and practices in education—specifically, ones with the power to positively change lives, systems, and society.

The Yidan Prize is an inclusive education award that recognizes individuals, or up to three-member teams, who have contributed significantly to education research and development. It consists of two awards, the Yidan Prize for Education Research and the Yidan Prize for Education Development. Yidan Prize Laureates receive a gold medal, a cash prize of HK $15 million (shared equally for teams), and a project fund of HK $15 million to help them scale up their work.

Stanford Accelerator for Learning and the Graduate School of Education, Stanford University

Housed at the Stanford Graduate School of Education, the Stanford Accelerator for Learning is an interdisciplinary hub for researchers, educators, entrepreneurs and others to collaborate on learning solutions. The Stanford Accelerator for Learning leverages the revolution in brain and learning sciences, data, and technology to create more effective and equitable learning solutions. The accelerator focuses on learners who have the highest and most urgent needs, and where discoveries have the most potential to change lives. Through grants, technical, research support, and partnerships, the accelerator helps turn ideas into impact. The Stanford Accelerator for Learning is a key part of Stanford’s vision to accelerate solutions for the betterment of humanity.

The Graduate School of Education is the center of teaching and learning at Stanford. With 400 graduate students, the school prepares researchers, policymakers, entrepreneurs, executives, and school leaders. The GSE’s faculty draw from a variety of disciplines to produce novel scholarship that shapes teaching and learning worldwide. Faculty partner with schools, nonprofits, and governments to improve policies and practices and help prepare all learners for a dynamic future. The GSE awards PhD, MA, MS, and MA with teaching credential degrees, as well as joint degrees in public policy, law, and business. It also offers an undergraduate minor.