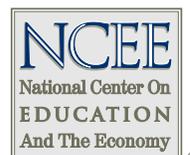


Rethinking Education Transformation in a Disrupted World:

NCEE's Report from the 2020 Virtual Meeting of
The Global Education Leaders' Partnership

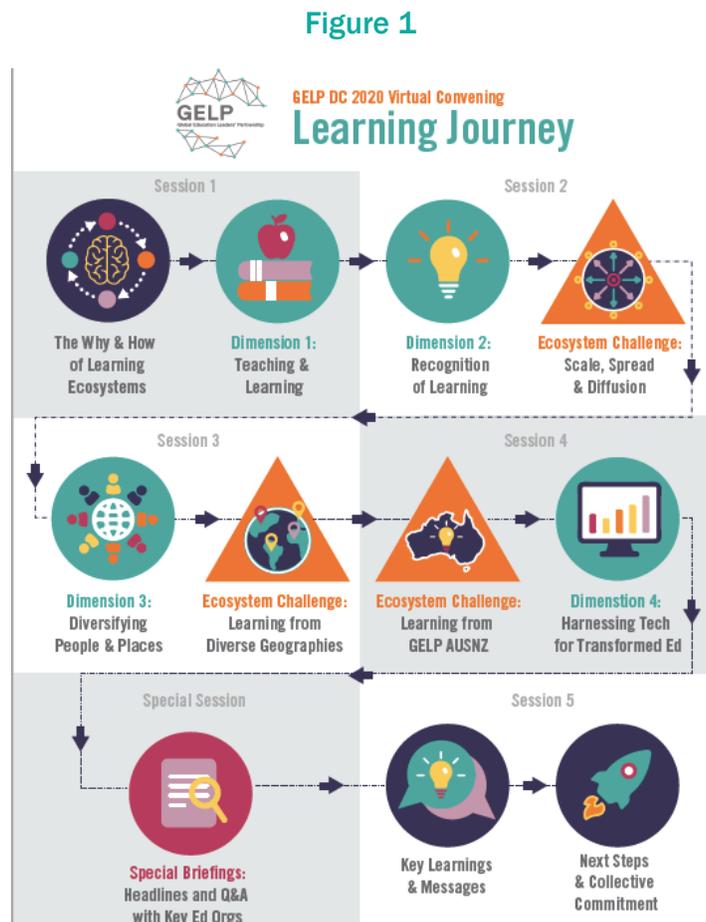


I. INTRODUCTION

In addition to helping our partners to achieve results that will match or exceed those of the world’s leading education systems today, NCEE knows that our school systems will continue to fall behind if they don’t prepare students for the world of education, work, and life as it will exist tomorrow and well into the future. NCEE participates regularly in global convenings of academics, educators, and thought leaders to anticipate what the future may hold, and to translate their thinking into actionable policy and practice recommendations for our partners.

From May 17 to May 20, 2020, leading thinkers on how to transform education systems for the future convened under the banner of the Global Education Leaders Partnership (GELP), with NCEE’s President and CEO and GELP Co-chair Anthony Mackay serving as a co-facilitator. (See the Appendix for a list of participating organizations.) The meeting was originally scheduled to be hosted at the Brookings Institution in Washington, D.C., but because of the coronavirus pandemic, the 115 participants—from a dozen countries on four continents—instead collaborated over 12 hours of Zoom sessions. Far from a hindrance, the virtual setting allowed participants to experience one version of a reimaged education space firsthand.

Participants shared a unified goal of transforming education systems to meet the challenges posed by an uncertain future: one in which globalization, artificial intelligence, and related technologies will change the ways that students learn, the jobs available to workers, and the ways happy, healthy, and productive citizens engage in their society. And, as Figure 1, the “Learning Journey” graphic, illustrates, participants discussed how the transformation of education systems could take place in four dimensions: teaching and learning; recognition of learning; diversifying people and places; and harnessing



Source: Global Education Leaders Partnership

technology for transformed education. Across these discussions, participants agreed that while the coronavirus pandemic has exposed the deep and enduring inequalities underpinning education systems across the globe, it paradoxically represents an opportunity for real transformation to meet the needs of all students.

Participants presented a wide range of strategies to realize their shared vision, from policy approaches to pilot community programs to new applications of machine learning. NCEE was invited to discuss our work with the OECD to convene six leading jurisdictions in a collaboration called High-Performing Systems for Tomorrow. These leaders meet twice per year to consider the implications of AI and related global trends on what students need to know, how and where they learn, and the role of the teaching profession. And other leading organizations shared their cutting-edge work in different areas: rethinking learning environments both inside and outside of the classroom; harnessing digital tools to meet the needs of all learners; breaking down the barriers between schools and community resources to support learners beyond the school; and reshaping the roles of teachers and parents, especially during a challenging few months of distance learning.

This paper will present some highlights from the meeting, as well as some of the themes that emerged from the discussions. And it will suggest some of the challenges education systems face in achieving the transformations that are needed to meet the needs of the future.

II. FRAMING THE DISCUSSION

To frame the discussion, Valerie Hannon, board director of the Innovation Unit and a founding faculty member and co-chair of GELP, outlined some of the ways the Covid-19 crisis exposed the challenges all education systems face. As she put it, “Covid-19 has been an X-ray machine, revealing facts and shadows about education systems.”

First, she noted, the crisis has shown how ineffective many education systems have been in integrating technology. Where systems have made progress, they have been more successful in navigating the crisis, but many have not been able to do so. Second, the closure of schools has shown how many systems have weak connections to communities and families. Third, Hannon said, the social functions of schools are now clearer. The last few months, she explained, have shown how much young people need connections to peers and adults. At the same time, the relief from mandatory attendance has served some students well—they have been able to personalize their learning. But for many students, this has not been the case. As a result, she concluded, “the equity gap is not a gap—it’s a chasm . . . We need to accelerate to the kinds of personalization that will enable all students to succeed. And we need to redefine what it means to succeed. The job market will be different post-Covid.”

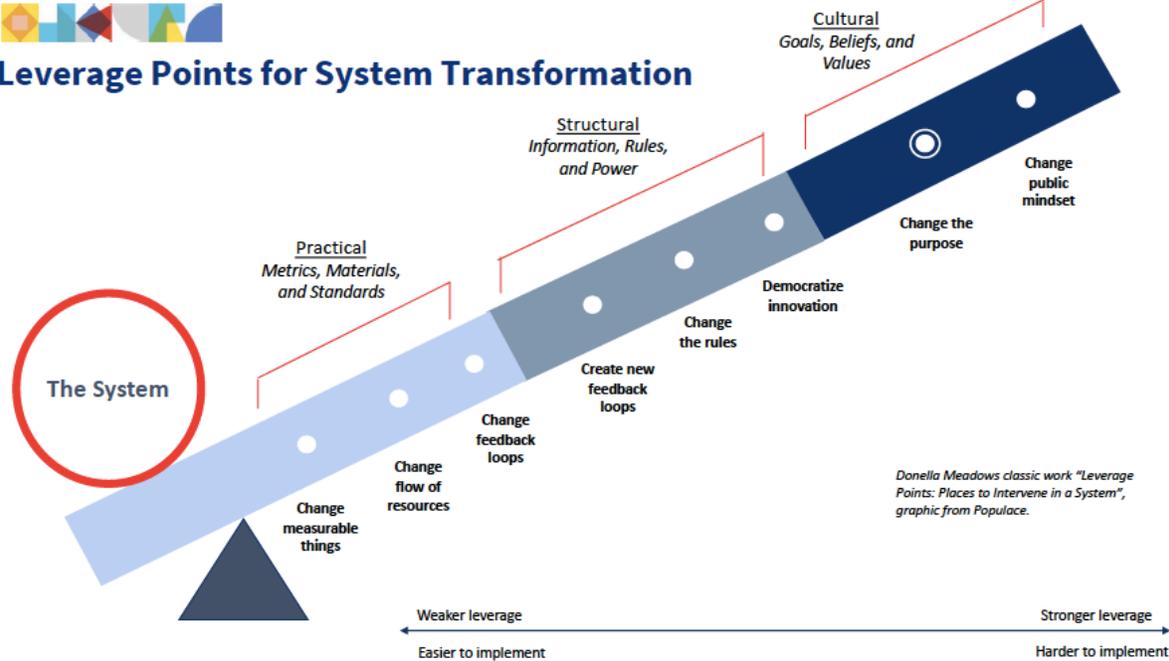
What will it take to transform education systems? Rebecca Winthrop, senior fellow at the Brookings Institution and co-director of its Center for Universal Education, outlined research she and her colleagues undertook to study educational innovations. Winthrop noted that the need is great: by 2030, half of all young people around the world—900 million young people—will not have secondary-level skills. The need is particularly acute in low-income countries, where 92 percent of youths will lack those skills. But even in high-income countries, 30 percent of youths will lack secondary-level skills, she said.

Because of the great need, education systems cannot rely on the traditional pathways for educational improvement. Rather, Winthrop said, systems need to “leapfrog”—jump ahead, skip steps, bypass legacy infrastructure, and create rapid, non-linear progress.

Her study of 3,000 education innovations from more than 160 countries shows what leapfrogging looks like and how to achieve it. These innovations create a new “learning ecosystem,” in which teaching and learning is increasingly student-centered; credentials are personalized to meet learners’ individual paths; people and places are increasingly diverse; and technology and data are increasingly results-oriented. Winthrop argued that while changing systems in this way is difficult, as the work of Donella Meadows has shown, it is possible by attending to practical, structural, and cultural leverage

points. Meadows represents these leverage points in a well-known diagram reprinted here in Figure 2.

Figure 2



Source: The Brookings Institution

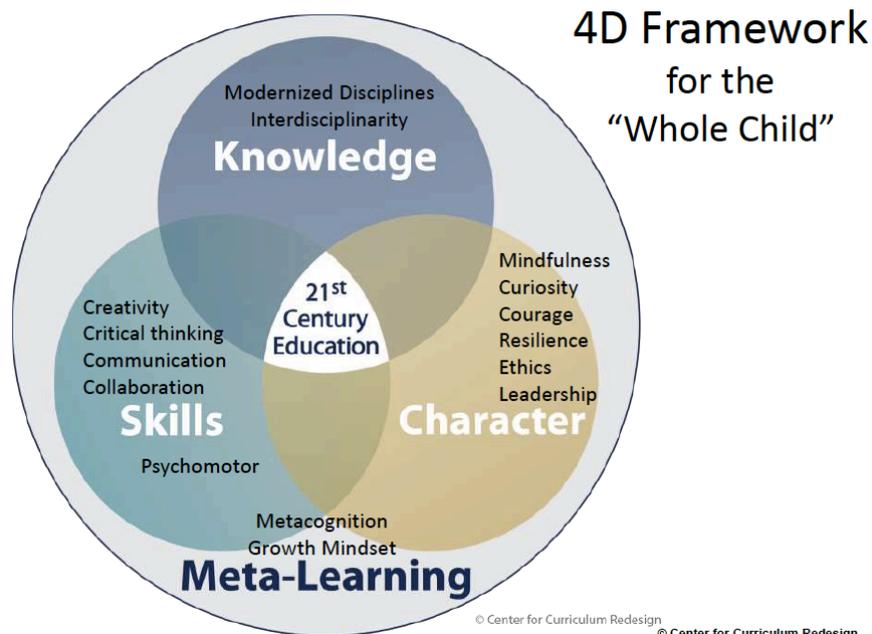
The challenge is scaling—expanding and deepening the impact of these innovations and thereby leading to transformational change and lasting impact on people’s lives. Yet research shows that there is widespread support for enabling young people to develop the broad set of skills they will need for the future, Winthrop said. “The good news is that there is demand,” she said. “We don’t have to fight against the tide.”

III. TEACHING AND LEARNING

The GELP convening suggested that the first component of the new learning ecosystem is teaching and learning. What does that look like?

In two panel discussions, participants outlined ideas about what content is essential for all students to learn, as well as the skills and habits of mind needed for them to succeed in a complex world. These include so-called “21st century skills,” such as communication, collaboration, and critical thinking, in addition to STEM competencies in short supply. One way of thinking about the range of necessary content is captured in what Charles Fadel, founder and chairman of the Center for Curriculum Redesign, introduced as “The 4-D Framework for the Whole Child,” which groups 21st century education according to knowledge, skills, character, and meta-learning. (See Figure 3).

Figure 3



Source: Center for Curriculum Redesign

Panelists also described efforts under way to create new learning environments that are engaging and relevant. For example, the Global STEM Alliance, a project of the New York Academy of Science, has created an online platform, known as Launchpad, in which students and STEM experts collaborate to address global challenges. More than 7,000 students have engaged on Launchpad, and they have reported positive outcomes: increased interest in STEM, increased knowledge of content, improved 21st century skills, and a belief that participation is beneficial to their future, according to Hank Nourse, chief learning officer at the Academy.

Yet while there are many efforts like Launchpad under way, they remain on the margins of the larger, existing education system, noted Kelly Young, president of Education Reimagined, a network of 700 innovative learning environments. “Our folks have had to get waivers,” she said. “They operate in niches.”

Changing the system will require overhauling some aspects of education, such as assessments, that keep the existing system in place. “We need to take a crowbar to higher education admissions exams,” Fadel said. At the same time, change will require the involvement of partners outside of schools, such as businesses, civic institutions, and community organizations, and engaging parents and caregivers, said Gregg Behr, executive director of the Grable Foundation, which has formed Remake Learning, a network of 500 organizations in the Pittsburgh, Pennsylvania, area. But Tony Jackson, vice president of the Asia Society, said change is difficult because those who have benefitted from the existing system are reluctant to change it. “There is a large investment in the status quo,” he noted.

Following the panels, all participants broke into small group discussions. These centered on how and when to best promote more varied, diverse, and adaptable learning experiences. While most agreed that there was value in ensuring system-level standards for excellence, there was widely-shared agreement that across the world traditional accountability and quality assurance systems had become overly controlling and bureaucratic. Balancing the need for a flexible learning environment with the need to be accountable for public funding is a challenge everywhere.

IV. RECOGNITION OF LEARNING

On the second day of the convening, discussion turned to the second dimension of the GELP learning journey: recognition of learning. Introducing the topic, GELP's Amelia Peterson picked up on Behr's remarks about the importance of engaging partners outside of the school. She noted that unless redesigned learning systems were able to certify learning in ways that parents would recognize and support as valid, there was no hope for building a groundswell of support for system transformation.

An illuminating panel discussion described several strategies for doing exactly that. Scott Cheney, executive director of Credential Education, described how the current marketplace for education credentials is flooded with a mess of diplomas, badges, degrees, and certificates signifying an equally confusing array of competencies, skills, pathways, and labor market outcomes. No student or parent can reasonably be expected to navigate this space and make informed decisions about pursuing the credential that would bring them the most personal meaning and/or economic value. Acknowledging that higher education offers much more than just employment prospects, Cheney persuasively argued that his navigable database of credentials nevertheless offers a useful starting point for parents, students, and stakeholders to make sense of this space.

LRNG's Connie Yowell picked up on the demand for better ways to organize education credentials. She described her organization's work to develop "badges," flexible certifications that show that learners have completed a set of learning experiences, wherever they may happen, in a given "playlist." LRNG has created a platform to curate the set of "anytime, anywhere" learning experiences, organize them into recognizable playlists, and promote badges that will be recognized by society and the workforce. This is work that she described as an ambitious form of "decoupling and recoupling": learning credentials must be decoupled from archaic concepts of credit hours, and then recoupled into new badges that are helpfully curated for learners and parents.

Big Change's Caireen Goddard also agreed with Cheney's assessment that the education we are currently offering is not meeting parents' needs. She stressed the need for a systems change strategy that works from "both the grass roots and the grass tops," and described her organization's upcoming work to not only help parents understand what deeper learning can look like, but also engage them in the process of developing new forms of learning.

Speaking on behalf of KnowledgeWorks, Vice President Katherine Prince described her work to redesign learning standards to replace time-based policies with mastery-based

ones, integrate social-emotional and academic competencies, and ensure that students' wellbeing is central to the goals of the learning system. As Figure 4 shows, this redesign work will require: an emphasis on deeper learning; equitable curriculum that focuses on the essentials; enabling all learners to exercise agency in their learning journeys; and a recognition of social and emotional skills.

Figure 4

Personalized, Competency-Based Learning



Source: KnowledgeWorks

Her comments served as a useful prelude to Te Kura's Mike Hollings' reflections on the "demand-side challenge" of building programs that employers and other relevant stakeholders will recognize. This, in turn, led to lively debate in the live chat. Participants were eager to discuss to what extent redesigned education systems should privilege employability as the goal of learning, as opposed to broader outcomes like happiness, healthiness, and civic engagement. Further, participants agreed that credentials currently derive much of their value from a set of largely unspoken social assumptions. Decoupling credentials from those assumptions could potentially promote equity and democratize access to opportunities, and ensure that no one institution "owns" the credentials of greatest value. Or, more worrisome, it could further confuse the existing marketplace. Finally, there was a wide range of opinions as how to make learning that happened in specific communities – and were, by definition, hyperlocal – broadly recognized by the public across states and nations.

V. DIVERSIFYING PEOPLE AND PLACES

The third dimension of GELP's learning ecosystem framework is a diversity in people and places. Schools are not the only sites where learning takes place, and teachers are not the only facilitators of learning.

The panel on this topic included a discussion of South Korea, which in 2013 began a pilot "exam-free semester" in middle schools to provide students with opportunities to expand their learning horizons without the pressure of end-of-semester tests. The program expanded to every middle school in 2016 and became an exam-free year in 2019. Sang-Duk Choi, senior research fellow at the Korean Educational Development Institute, said the program has enabled students to explore possible career opportunities by engaging businesses and community organizations to provide learning programs out of school. "This is an opportunity for students to nurture their capabilities," he said.

Similarly, a program in Catalonia, Spain, called Education 360 brings together municipalities, community organizations, and cultural institutions to create learning experiences in and out of school based on student needs and interests, said Mònica Nadal, director of research for Fundació Jaume Bofill, which created the initiative. Each municipality creates its own program, she said, based on local needs. "We don't have a model for what municipalities and community organizations would be doing," she said. "We bring drivers and frameworks. Each area develops its own solutions."

Teachers are eager to learn new skills and help create the new learning ecosystem, said Melinda George, chief policy officer for Learning Forward, a U.S.-based organization that supports professional learning for teachers. During the pandemic, the organization has been holding a series of online learning opportunities to enable teachers to devise solutions for teaching in a new environment. "Educators are embracing a new way of learning," George said. "They want a role in shaping the 'now normal.'"

Discussing these contributions, participants shared widespread agreement that there was a great opportunity in the current moment to broaden learning opportunities and engage community partners. But they also sounded a note of caution about what was lacking: a set of clear and consistent frameworks and principles that would enable all participants in the learning ecosystem to play their roles in a flexible and adaptable manner that still leads to greater excellence, equity, and efficiency.

VI. HARNESSING TECHNOLOGY FOR TRANSFORMED EDUCATION

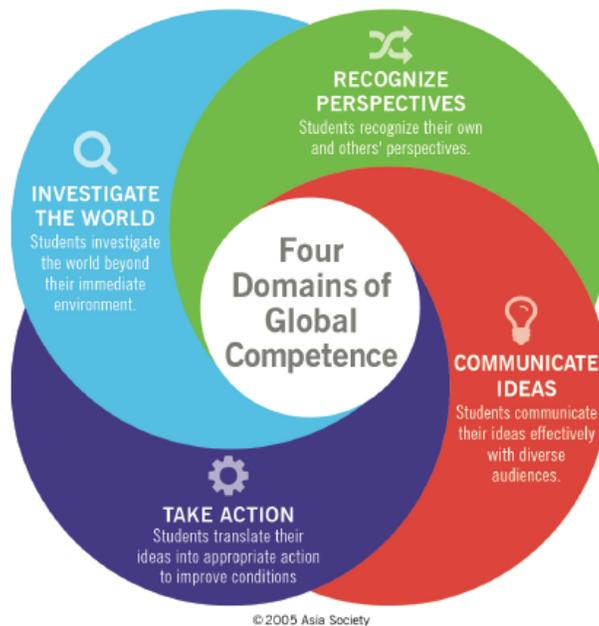
As the pandemic has vividly illustrated, the need to broaden who delivers learning and where it is delivered can only take place through thoughtful use of technology. In order to explore how high-performing systems globally are currently harnessing technology in innovative ways, NCEE's former Director of Strategic Partnerships Tom Shelton interviewed Hong Kong's Kai-ming Cheng and Jeff Sze as well as Finland's Anneli Rautiainen.

Cheng observed that the distance learning period brought on by the pandemic had given Hong Kong educators time and space to think through innovative ways to use technology. They were focusing more on STEM, rethinking teachers as designers of learning, and emphasizing students' self-motivation and metacognitive skills much more than they had in the past. Cheng argued that in the long-term, a few things might change as a result. Hong Kong may see shorter classes and more small group discussions, and more thoughtful attention to self-motivation as a result of this experience. But he cautioned that assessment conventions of the exam-driven society were unlikely to change.

In Finland, Rautiainen asserted that technology's primary function during the pandemic has been to enable teachers to create tools and support to enable the system to become more sustainable and resilient. For her, the components of a sustainable and resilient system that meets the challenges of the future include: human-centered pedagogy, a focus on dialogue and empathy, and a culture of benchmarking, experimentation, and willingness to grow and change.

Following up on these reflections from other systems in real time, Asia Society's Heather Singmaster shared her organization's work to harness technology to ensure that students graduate globally competent. She described how technology can facilitate better interdisciplinary project-based learning, which can greatly broaden the range of skills we measure through authentic assessments. Her work has classified the key domains of global competence as investigating the world, recognizing perspectives, taking action, and communicating ideas. These are explained further in Figure 6.

Figure 6



The panelists' remarks again prompted thoughtful discussion. Participants agreed that technology offered tremendous potential to bring people together, bridge gaps in society, and provide access to new forms of learning experiences and new types of credentials. At the same time, there was widespread concern that unequal access to technology, and the prohibitive costs of some advanced forms of learning technology on the market, were widening inequalities. There is also a risk that technology will “get ahead of” pedagogy – that teachers will adapt their practices to do what is possible with new technologies rather than in response to what students want or need. Finally, there was some disagreement about the extent to which GELP’s ecosystemic framework was being superimposed on systems that might not necessarily describe their own transformative goals in those terms.

VII. OPPORTUNITIES AND CHALLENGES

Participants agreed that their goal is to transform education systems, not just make schools work a little better. As Mackay put it, “We’re anticipating a different future of learning and work to go beyond current metrics.”

In many places, that work is already under way. Jackie Kraemer, director of Policy Analysis and Development at NCEE, described the work of High-Performing Systems for Tomorrow, a partnership between NCEE, OECD, and six jurisdictions (British Columbia, Estonia, Finland, Hong Kong, Korea, and Singapore). Although these jurisdictions already perform well on PISA, they are looking to transform their systems to address the changes that AI and other trends are bringing to what students need to know and be able to do and how they learn. “They are moving the goal posts,” she said.

The coronavirus pandemic and the related economic recession are accelerating these changes and provide an opportunity for transformation on a larger scale, participants said. Although the abrupt transition to online learning was often ineffective and exacerbated inequalities, it is unlikely that education systems will go back to the way they were pre-pandemic, said Pavel Luksha, founder of Global Education Futures, an international collaboration based in Russia. “People have been thrown in cold water without preparation,” he said. “We need to adapt to a new model of learning.”

What will it take to bring about transformation on a large scale? Participants suggested at least three factors:

Leadership. Although many of the efforts already under way have started from the bottom up and developed organically, leaders are essential to shape and sustain them, participants noted. Leaders develop and maintain a vision for the transformed system, recruit and support participants and partners, and mobilize resources. “Without leadership and courage, we don’t get to first base,” Hannon said.

Public Policy. Policy support is also essential to sustain new learning ecosystems, participants pointed out. Policy support can provide resources and remove barriers, noted Kathe Kirby, the executive director of GELP, citing South Korea’s exam-free semester policy. “South Korea tells us the potency of governments scaling up the drive to create new environments,” she said.

Partnerships. The new learning ecosystem necessarily brings together diverse partners, who provide learning opportunities in diverse settings for young people. Thus, the transformation will require “weavers” who can stitch together diverse communities, suggested Luksha. But, he added, “Weavers are one aspect of leadership. It’s not enough. It takes finding real demand from stakeholders—businesses, community.

Finding a shared vision. It is a multi-stakeholder process driven by real demand.” GELP, a “network of networks,” can support these efforts by sharing knowledge and resources, Luksha added. “This community has the position of mobilizing global expertise,” he said. “We need to think about how to do it better.”

NCEE values partnerships like GELP because we hope to bring our partners leading edge insights on the future of education, work, and life. As the GELP 2020 convening shows, there are as many challenges and debates around how education systems should adapt to the future as there are points of consensus. But even though plenty of uncertainty remains, education leaders around the world are already transforming their education systems in an ongoing way. For more insights on how high-performing systems have developed and are adapting for the future, visit <http://www.ncee.org/cieb>.

APPENDIX: PARTICIPANTS IN THE 2020 GLOBAL EDUCATION LEADERS PARTNERSHIP VIRTUAL CONVENING

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