Shifting Dynamics:
The International Order in a Post-Pandemic World

1st - 2nd of December | 2020

The Future of Work and Education:
Preparing for a Post-Pandemic World

TRT world forum 2020

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Exclusive Talk

Digital Transformation and Innovation in the Post-Pandemic Era

Ali Taha Koç

Head of Digital Transformation Office, The Presidency of the Republic of Turkey

Dr. Ali Taha Koç was appointed as the Head of Digital Transformation Office and the Government Chief Information Officer in 2018. Prior to this position, he served as both the head of Information Technologies and the Head of the Security Policies Department for the Presidency of Turkey. Dr. Koç began his career in the Turkish government as the Chief Technology Adviser to the Prime Minister. In addition to his duties at the Presidency, he has been a board member for Turksat Satellite Communications & Cable TV Business Inc. Before he joined government work, he was a research and development engineer at Intel in the United States. During his tenure at Intel, he developed 61 patents, published 23 scientific articles, and developed and managed several international projects. In 2013, Intel awarded Dr. Koç for being one of the top 10 patent inventors in the company. He received his MSci and Ph.D. from the Department of Electrical Engineering at the University of Texas at Dallas. He also teaches graduate courses at the Department of Electrical and Electronics Engineering at Bilkent University.

Hi, everybody. I am happy to be with you in this session. COVID-19 has clearly shown us that it has a natural and direct impact not only on human well-being and health but also on an economy that relies on digital transformation. Therefore, we need a holistic approach consisting of a new sustainable model of innovation that explores the ways [that digitalisation is] shaping the world. In the face of unexpected crises like the COVID-19 pandemic, we should remember that we need to be ready for unpredictable events by working more global, creative and human-friendly social innovation. Before the pandemic, globalisation and the digital transformation already made businesses far more dynamic and unpredictable. In other words, today's hyperconnected world presents no guarantee that the future will resemble the past. In this respect, I would like to approach to Forum's theme with three different pillars, which are integration, data governance and digital protectionism. In this session, I will consider these pillars as building blocks of digital transformation and innovation in the post-pandemic era.

Let me start with integration. By integration, I mean global interoperability, relying on cross-border data flows, considering all safety criteria and regulations. Interoperability is key to the sustainable success of the [digital] ecosystems. Digital transformation relies on an interdependent economy, which requires business ecosystems to share the profits amongst all participating companies Business ecosystems are dynamic and growing communities of diverse actors. Digital business ecosystems create new value through increasingly productive models of collaboration and competition. Digital transformation cannot be successful without trust-based digital platforms whose building blocks are security, accountability, transparency, fairness and ethics.

Data is the operating currency of digital platforms. Distributed peer to peer networks are the conduits by which data and digital platforms are transformed and transported. To make an analogy, we will say digital platforms are vehicles of data flow and consumption. Therefore, digital platforms will discover and expand to new digital markets since they bring on the process of collaboration, co-

creation and cooperation. By catalysing the creativity and synergy with co-creation and collaboration, we will be laying the foundations of an intelligent society. The idea of an intelligent society [along] with the digital age requires a new approach consisting of technology, humanity and economy. All of this requires embracing openness. Openness is the only key that would help data flows and interoperability across borders. Thus, open innovation coming from openness doesn't only refer to free knowledge or technology but also refers to collaborative networking on a global level. Open innovation will produce value by considering technological developments in the context of social welfare in the post-pandemic era. It is about bringing people, processes, policies and technologies together to ensure value exchange across an ecosystem.

If we are talking about open innovation, then we also need to consider data ownership and privacy. In the context of the digital ecosystems, data ownership and privacy are related to data quality. Therefore, poor and unknown data quality can cause larger-scale problems that affect all ecosystem services and thus the entire reliability of the ecosystem. If we consider this from the perspective of health-related open data quality, it will require cooperation in setting standards for data quality and extracting relevant insights to policymakers on time. Therefore, the main priority in open data is to ensure the reliability of the data and the data source. At the moment, data quality standards and definitions are not yet clear. In the post-pandemic era, the data quality assessment will be the most important issue. Identification of new quality assessment tools and methods to verify the quality of open data will affect the reliability of the digital ecosystem.

Let's talk about the second pillar, which is data governance. In the case of data governance we need to focus on integration and orchestration in digital platforms to bring open data to the ecosystem. During the pandemic, we have realised that a reliable, continuous and accurate flow of information from authorities is quite important. Therefore, once again, I would like to emphasise the importance of data quality, privacy and usability in the concept of data governance. Solutions for data governance in cross-border data flows enable us to create and maintain global value chains. Global value chains support almost all international trade and investment, but also global human health and wellbeing. The current shift in legislations toward increased privacy and user rights, along with increased user control [...] must be considered when planning digital trade concepts with cross-border data flow.

Privacy concerns on cross-border data flows leads us to digital identity. The fundamental solution for identity management, which requires a trusted third party that everyone finds reliable, can only be the government. Therefore, in the post-pandemic era, we will need a regulatory framework that creates incentives for data governance with a focus on privacy in a way not to prevent international trade. Let me also note briefly that if you look at the cross-border data flow and the emerging digital economy from the perspective of giant digital companies, we also face another phenomenon which we call digital data capitalism.

Today, the third and the last pillar I want to talk about is digital protectionism. With the rise of the internet-based digital economy in the last decade, new problems have started to arise. How can we measure the value of free online commodities such as Google Maps, Facebook interactions, smartphone apps or YouTube videos? When digital products are available for free, they have no effect on GDP, despite the value generated by users. The first problem in measuring the value of digital products is that the marginal cost of delivering them over the Internet is close to zero.

Online information can be updated anytime and can be accessed from almost anywhere in the world. But its price is often much lower compared to its physical counterparts. Without available tools to measure the value of the digital economy, how will policymakers manage it? GDP is one of the fundamental inventions of the 20th century, but there's some weaknesses. In particular, anything with zero price has exactly zero weight in GDP, whether it be an app on your phone or the air you breathe. The price of these digital commodities may be zero here, but digital giant companies are gaining a lot of value through them. Given the increasingly widespread economic and social role of data, it's flow across borders have become a critical policy area affecting international trade and global economic growth. In most cases, data is provided free of charge by users of any online social network across borders. Therefore, they do not create any financial transactions in the country where the user is located. However, when these data points are combined with millions of other

data [points] from around the world, they form the basis of data analysis and therefore value creation. Here we are talking about an emerging digital economy that nation-states cannot track and include in their GDP. The sanction power of nation-states is limited by the capacity to control and configure data traffic. This power and the capacity may not necessarily be determined by law. In other words, digitalisation and the digital economy have the potential to frustrate the written law rules on which nation-states are built. Under these conditions, today's main problem is not about expanding the field of digitalisation and digital economies. Today's main challenge is the question of how nation-states can take a stand in the digital age shaped by digital data capitalism emerging from digital platforms of giant digital companies. Even though digital data capitalism seems to benefit from international deregulations, its survival depends on the nation-states structuring the traffic of the data, namely the regulation of the digital economy.

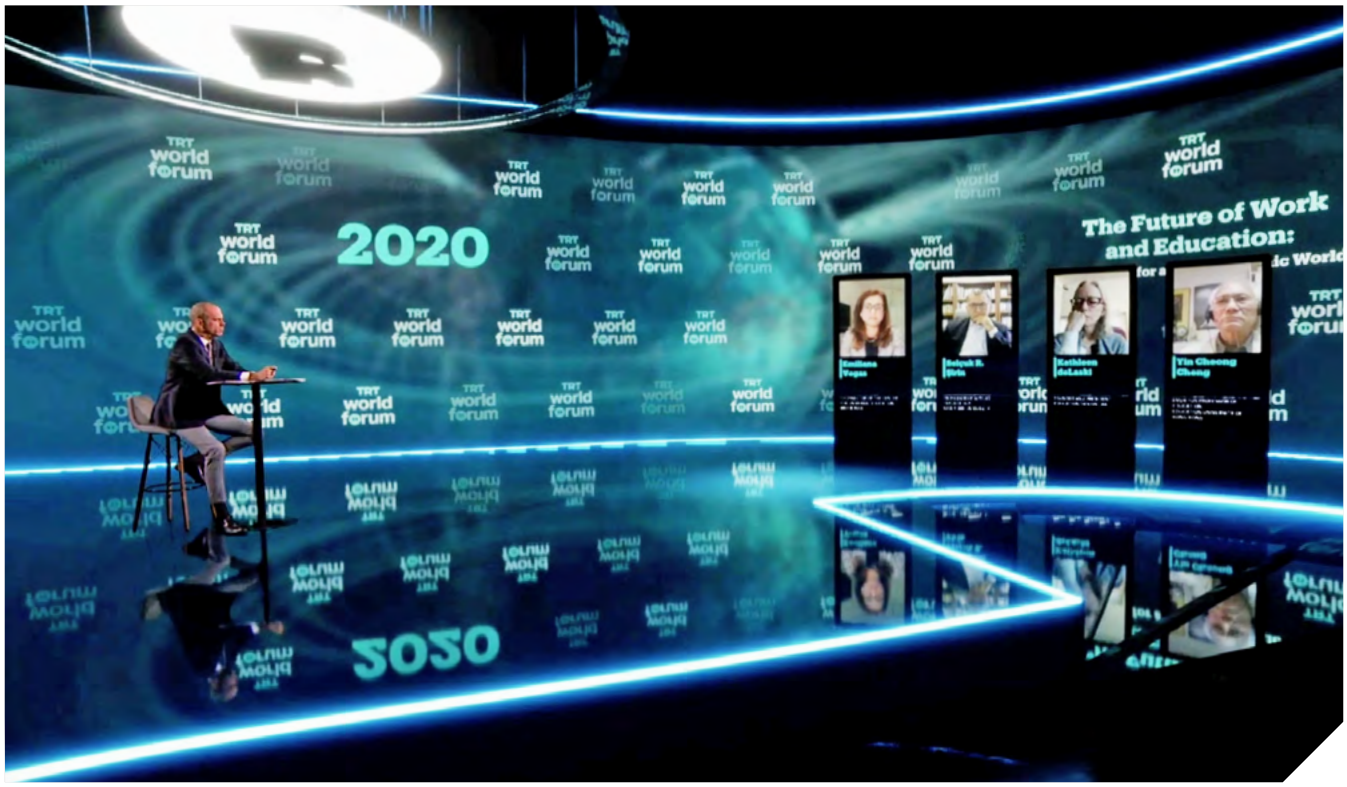
At this point, I would like to draw your attention to digital protectionism, which is the natural result of digital data capitalism. Digital protectionism is a government policy that aims to localise and take measures on data by taking control of the data flows in the international arena. All kinds of policies that regulate and block the international traffic of data cause [that] the giant digital companies' platforms to not work [at all] or operate at low efficiency. Governments can adopt protectionist policies to reduce their dependency on digital companies that collect, store and commoditise user data. Driven by such a policy, one of the steps taken in Turkey is the publication of information and communication security measures with twenty one articles published on July 6, 2019. Some of the measures include: use of domestic social media and communication applications shall be preferred in the public service offices, operators authorised to provide communication services are obliged to establish an internet exchange point in Turkey, measures shall be taken to make sure that domestic communication traffic, which needs to be routed domestically, is not taken abroad.

We currently witnessed that strict inspection practises have already spread all over the world, especially in the USA and European Union countries. Fines can be imposed if digital companies do not comply with norms like intellectual property rights or anti-competitive measures that are stated in laws and regulations. For example, nearly 4.5 billion euros in penalties were imposed on Google by the European Commission in 2013.

Digital protectionism is a natural reaction of nation-states to the conditions of digital data capitalism formed by giant digital companies. However, we should note that once digital protectionism begins, it can create an endless spiral of censorship and political pressure. Therefore, it is important to allow data to flow easily to take advantage of the benefits of the digital economy. It is important to ensure that the relevant earnings from open data flow should be fairly shared by the countries involved in creating value. This may require investigating new alternative approaches. Given current trends, it is not clear that open data flows and more access to data alone will help addressing global digital inequalities.

Last but not least, I would say that digital transformation doesn't mean digitalising everything, but it is kind of a seamless and spontaneous convergence of life and critical ecosystems. It really means inspiring and connecting human intelligence and how governments regulate and conserve resources within their own ecosystems. Over the next decade, one of the most prominent aspects of digital transformation will be the creation of vast, interconnected ecosystems enabled by trusted industrial platforms. My forecast on the new digital world is a heterogeneous environment based on the decentralisation and federation of diverse, competing entities and resources. Emerging technologies like A.I. and Block Chain can provide new ways to embed data governance principles into the automated interactions of ecosystem participants. It might need a paradigm shift in the idea of an intelligent society emerging in the digital age. However, transformation is always a gruelling uphill battle against the status quo, pushing people beyond their comfort zone. Let me conclude by saying that we will need to consider a joint vision on the path towards sustainability to cope with the digital transformation processes that are revolutionising life, businesses and society. Thank you for joining us today. I wish you all a successful conference.

The Future of Work and Education:
Preparing for a Post-Pandemic World



- The COVID-19 pandemic has been labelled as the defining global health challenge of our time, however, it also has massive implications for the future of work and education, which have already undergone significant changes that may have been considered impossible before the pandemic, such as widespread remote work and mass online education.
- Technological advances and progress towards eliminating digital divides can go a long way in helping to protect vulnerable students and building a healthy education ecosystem.
- In order to ensure a successful transition period in the post-COVID era, policy makers and governmental institutions should prioritise educational and technological development, as these are the two key elements that will need to be transformed.
- The future of education and work lies in a skills and strengths based arrangement which recognises micro-credentials and individual expertise not necessarily tied to large institutions.
- In order to prevent educational deterioration in the post-pandemic era, policy-makers and researchers need to track learning losses carefully, particularly amongst the most marginalised groups.

Summary of the Session

The panel "The Future of Work and Education: Preparing for a Post-Pandemic World" discussed the impact the COVID-19 pandemic on the future of education and work.

Regarding the nature of post-pandemic education, Kathleen deLaski raised the question of how to make learning more flexible, affordable, visible, and relevant. In her intervention, deLaski argued that an entire generation is being challenged by the pandemic. Within this context she urged a move towards what she refers to as micro pathways, which advances the idea that individuals can earn what are called 'micro-credentials' quickly to build and accredit relevant skill sets.

Professor Yin Cheong Cheng discussed the pandemic's impact on education systems around the world. He believes that the pandemic holds political, economic, and cultural impacts relevant to education, also referring to it as a moment of "destruction" of the traditional approach to education. He expressed the view that the COVID-19 pandemic represents a golden opportunity to transform numerous areas of the education sector as whole. Additionally, Professor Cheng claimed that the pandemic has made it clear that a new paradigm of learning is required, emphasising the need to foster more creativity, multiple intelligences, and innovation.

Emiliana Vegas pointed out the inequalities that persist in the education industry have only been further revealed by the pandemic. This includes inequality in access to learning technologies, including internet connectivity and online materials. Vegas further urged policymakers to prioritise the improvement of not only the health sector, but also, as a global community to prioritise investments in education system as a means of overcoming some of the more detrimental social impacts of the pandemic.

Professor Selçuk Şirin also pointed out the educational and sociological gaps certain families face resulting from socioeconomic vulnerabilities. He further emphasised the importance of early childhood education, stating that the global education sector should face these challenges head on and see this moment as an opportunity to enact real change.

Regarding solutions to the post-pandemic education crisis, Andreas Schleicher pointed out the importance of tracking student learning losses that occurred in the course of pandemic-related shutdowns, particularly amongst the most marginalised students. He further stated that productivity, broadly speaking, should become a focus of educators by examining how to make positive impacts through the reconfiguration of traditional concepts surrounding the use of space, time, people, and technologies.

Andreas Schleicher's Highlights

Director for the Directorate of Education and Skills, Organisation for Economic Co-operation and Development (OECD)

Andreas Schleicher is the Director for Education and Skills at the Organisation for Economic Co-operation and Development (OECD). He oversees the Programme for International Student Assessment as well as other efforts to improve global educational practices. Before joining the OECD, Mr Schleicher was Director for Analysis at the International Association for Educational Achievement. He has received outstanding praise from global leaders in education policy, including former U.S. Secretary of Education Arne Duncan and former UK Secretary of State Michael Gove. Mr Schleicher studied Physics in Germany and received a degree in Mathematics and Statistics in Australia. He is the recipient of numerous honours and awards, including the "Theodor Heuss" prize, which is awarded for "exemplary democratic engagement". He holds an honorary Professorship at the University of Heidelberg.

"We need to track the learning losses very carefully, particularly amongst the most marginalised students. Learning losses have not affected all students in similar ways."

"Students who were very good at learning independently were those who had access to great technology, or had a very supportive ecosystem around them, teachers and parents included. For them, learning loss will be very contained. But many young people who are used to being spoon-fed by their teachers, who didn't have access to technology, who didn't have parents pushing and supporting them, were left very severely behind. And if we want to give them a second chance, we will need to track their learning losses. And I do think that's a critical task for public policy."

"We need to raise productivity in education. And that is about reconfiguring the space, the time, the people, the technologies."

"We have a very industrial culture and schooling. We teach everybody with the same kind of big machine. We need to understand better that our different learners learn differently and then embrace it. One of the things the pandemic has done is to show the power of new technologies."

"We need to move away from this very monopolistic structure that we have, particularly in higher education. A university is very good in bundling, you know, content delivery and accreditation and then selling you a costly degree. I do agree that the future lies in micro-credentials, that we recognise what people can do right now, irrespective of where they have learned it."

"People may learn great things in the workplace or in private life. And we need to become better at recognising what people know and can do rather than the kind of specific pathway they have gone through. So if micro-credentialing really takes off, and together with block-chain technology, there's a real chance for that to happen, to break that monopoly of the big institutions."

"Many of the knowledge, skills, attitudes, and values that are going to be so central in the 21st century are best learned in the early years. If you think about curiosity, if you think about empathy, if you think about leadership, if you think about courage, for us as adults, they are personality traits. [...]The crisis has shown us that the kind of things that are easy to teach and easy to test, are disappearing from our economies, from our societies. Robots, artificial intelligence are taking all of this over. And we have done very well in educating second class robots. But now it's time to think about what it means to be a first-class human. And I do believe that's what this crisis has accelerated."

Beyond COVID-19, if you look at the last 10-15 years, we have actually significantly raised spending on education and more or less see very similar outcomes. The question really is not to conserve what we are doing, but to transform it.

Yin Cheong Cheng's Highlights

Emeritus Professor of Education and Senior Research Fellow, Education University of Hong Kong

Professor Yin Cheong Cheng (EdD, Harvard) is Emeritus Professor of Education and Senior Research Fellow of The Education University of Hong Kong (EdUHK). Previously he served as Chair Professor, Vice-President and acting President at the same institution. He was elected as the President of World Educational Research Association (WERA) and the Asia-Pacific Educational Research Association (APERA). His research interests include educational reforms, leadership development, paradigm shift, teacher education, higher education, and school management. Prof. Cheng has published 26 academic books and over 260 chapters and journal articles. Several of his publications have been translated into Chinese, Hebrew, Korean, Spanish, Czech, Thai and Persian languages.

- "The impact [of COVID-19] and its patterns can be classified into different types of destruction, including technological destruction, economic destruction related to resources, social, political, and cultural destructions. All these destructions comes together, contributing to the formation of learning destructions affecting our schools, our education, and our young people's future."
- "The concept of learning will be changing. Previously we focussed on the shape of that learning, But now we are [actively] using technology, such that the learning opportunity is quite different from the traditional way."
- "We need to have a new paradigm of learning by emphasising multiple contextual items, multiple intelligences, such that they can jump from one box to another box, make creativity, and make innovation."
- "Skill-based learning is essential at the primary level. Beyond that, we need to encourage our young people to develop multiple perspectives. We have considerable thinking ability to jump out of the box and make innovation possible in the future."
- The research agenda or the policy agenda may focus not only on the constraint due to the impact of the pandemic but also take the opportunity to transform traditional education. This is a golden opportunity to [change] education. There can be a new future in our post-pandemic world.
- With the central platform concept organised by the government [...], we can support poor students no matter [what], so that they have [access to] individualised resources, packages, learning pace, and learning curriculum.
- To solve the problem of equity, we need to ensure children have the opportunity to use the equipment of learning eco-system, not limited by individual school or individual teachers.

The concept of learning will be changing. Previously we focussed on the shape of that learning, But now we are [actively] using technology, such that the learning opportunity is quite different from the traditional way.

Emiliana Vegas's Highlights

Senior Fellow and Co-director of the Center for Universal Education, Brookings Institution

Emiliana Vegas is a senior fellow and co-director of the Center for Universal Education at the Brookings Institution. A leading expert on education in developing countries, Vegas has written extensively on issues affecting education systems in Latin America and the Caribbean. Before joining Brookings, Vegas served as chief of the Education Division at the Inter-American Development Bank (IDB). She also worked at the World Bank, where she held various positions in the Human Development Network. Vegas is the author of several articles in peer-reviewed journals and institutional reports. She has also co-authored several books, including *Profession: Teacher. Why the teaching profession lost its prestige in Latin America and the Caribbean, and how to recover it?, The Promise of Early Childhood Development in Latin America and the Caribbean and Raising Student Learning in Latin America: The Challenge for the 21st Century.* Vegas has an EdD from Harvard University, an MPP from Duke University, and a BA in communications from Andrés Bello Catholic University in Caracas, Venezuela.

"Prior to the COVID-19 pandemic, in an international student assessment run by the OECD, […] less than 25% of them [students] mastered the basic skills in reading and even a lower share in math by the time they were 15 years old. And those are the students who are in school. Moreover, there were really large differences between students who come from wealthy backgrounds and students who come from the poorest backgrounds. So we would say that [even] prior to COVID-19, learning was low, it was unequal, and it was very inadequate for the 21st century industrial and technical world in which we live, where digitalisation is everywhere. COVID-19 hit and sent all students home for months[…]."

"All over Latin America and the Caribbean, with the exception of Nicaragua, every country closed schools, and only Uruguay has been able to reopen fully since June[…] Some countries are now making the efforts to reopen gradually and in staggered ways, because they realise that even though there's a lot of innovation taking place and a lot of creativity from teachers and parents and very well-intentioned administrators, the reality is that there's not the [proper] infrastructure in place."

"There is more than learning that takes place in schools and particularly in developing country schools. Schools are [often] the only safe place for students, the only place where they get a full meal per day, and where they also have access to health services. So the impact that it's having in developing countries is vast, not just in terms of learning, which is, of course, the primary concern, but also in terms of other outcomes such as health and wellbeing."

"The global education communities are trying to mobilise attention for prioritising education both in government budgets but also in the big donors like multilateral institutions and the prominent philanthropists. And it's a challenge because, of course, a lot of the attention is going to the health sector to developing the vaccine and treatments to contain the [corona] virus."

"How do we as a global community, ensure that we don't continue to grow gaps between low-income and high-income countries, or low-income and high-income students and children and youth within countries? That's the core of the work that we do and in thinking about how we can help leapfrog and do things differently, use resources more effectively, and recognise that the availability of resources in low-income settings is much lower. We need to push for the prioritisation for those settings."

"Around the world and here in the United States, the CDC, the Centres for Disease Control, released the priority list for vaccinations. And I was struck that teachers are not amongst the first. I understand that health workers have to be prioritised, but I believe strongly that just as important as it is to keep our health workers healthy, it is to keep our teachers healthy so they can be at schools and be in person and help our students learn."

Selçuk Şirin's Highlights

Professor of Applied Psychology, New York University

Selçuk R. Şirin is a Professor of Applied Psychology at New York University. Dr. Şirin's work focuses on the development of educational and psychological resources for marginalised youth. He has conducted studies with vulnerable children across the United States, Europe, and Turkey. His work has been published in Child Development, Developmental Psychology, Review of Educational Research, and Paediatrics, and has also appeared in the New York Times, BBC, CNN and Forbes. He is the co-author of *Muslim American Youth* as well as bestsellers *Freedom or Misery: Turkey at the Crossroad, A Dream of Turkey, and Raising Children*. He has received the Young Scholar Award from the Foundation for Child Development, the Review of Research Award from the American Educational Research Association, and the Jacobs Award for Social Innovation and Engagement from the Jacobs Foundation. Şirin has served on the National Academies of Sciences Committee on Supporting the Parents of Young Children.

"Children who are more vulnerable either by status in their countries or socioeconomic background are falling behind in terms of achievement indicators."

"If you are living in a household with one college degree parent, with some books and some social capital that, as they call it, you are OK. You are continuing to learn because you have internet access, you have a computer, etc. Depending on which country you are, it's half the kids or a little bit more or less. But there is this other group who have none of that. In other words, if they are not going to school, they don't have quality interactions at home, they don't have adult supervision, they don't have [enough] vocabulary they shared in the household from early childhood. So, they are the ones that we will look for in the near future as a generation of COVID-19 unless we do something about it."

"Now, we talk about generation X, Y, Z, and all those labels, but they [these labels] are not useful, as they are developed by market researchers, based on their consumption, etc. What we are experiencing right now [...] and what young people are experiencing right now, will transform their lives, will change their idea of where they live, how they look at the world."

"In each country, we know which groups are [being] left behind. We know vulnerable populations of specific populations. So, unless, as I said, unless we do something for those populations in particular, the gap will be there.

"In every country and language, if you type "reform" and "education" together, you will see that reform is most likely associated with the sector of education. But yet, it's a very conservative area; it hasn't changed much over the last two centuries. We still have the same school buildings, pretty much the same curriculum, the delivery is the same, and teachers' and principals' roles are pretty much the same. [...] we have to start thinking about teachers and school buildings' role, beginning with the architecture curriculum."

"You have to invest in an early childhood education as early as age two or three. That's the best rate of return for any kind of investment in education, especially for low-income families, especially for those kids who have limited resources at home.

In every country and language, if you type "reform" and "education" together, you will see that reform is most likely associated with the sector of education.

Kathleen deLaski's Highlights

Founder and President, Education Design Lab

Kathleen deLaski founded the Education Design Lab after eight years on the Board of Virginia's largest public university, George Mason. A social entrepreneur, she has launched or co-launched four non-profits in the past two decades, all related to improving the quality of education for non-elite students. With the Lab, she saw the need for a non-profit to help learning institutions and other players design education toward the future of a fast changing world. As the Lab has supported some 125 colleges, as well as employers, high schools, foundations and government in their innovation design work, Kathleen has been asked to share learnings, prototypes and ideas about the 'Learner Revolution', how to help learners be visible in a digital world, data-driven education to work pathways and teaching 21st century skills as they become increasingly sought after by employers.

- "People are talking about the generation that may be lost in terms of the critical development moments that they are missing [...] The students have not yet been [back] to school physically, except for very few[...]. When we hear about the students who are being lost in the system when learning is happening online, the impact of that is devastating."
- "They say 95% of learning happens outside the classroom, and the skills that we're being asked to have in the future of work are much more about human skills or soft skills. Whether it's collaboration or empathy or resilience, those skills need to be developed in contextual situations and assessed accordingly. So how do we teach that? You don't teach at a desk with 40 or 50 students. You probably learn in life, in school, in family situations, community service, and work."
- "What COVID-19 has helped us do, is imagine both from the employer's point of view, the teacher's point of view and the learners' point of view, and that we can mix different elements together."
- "How do you assess learning from the workforce point of view? Because we're getting to what we're calling a skills-based learning and hiring environment, which requires us to know at the micro-level, does this student or worker have this skill? And how do I know? It's all going to be digitally displayable, and you'll be digitally visible in the future. So, assessment becomes the task that we need to figure out."
- "Colleges were feeling like, 'we're going to go out of business unless we start to innovate.' And so you've seen that innovation curve and a lot of private investment coming in. The ed-tech space hase been very hot internationally and the A.I is playing a significant role. More innovation is possible in higher education. What COVID-19 has helped us recognise is that this skills-based ecosystem holds a lot of promise for the same populations [high school and college students] we're talking about.
- "The idea that in the future, you could be hired for things you can do and things you can demonstrate, rather than where you went to school or whether you can afford to go to a four-year college. Obviously, they'll always be some fields that require licensure. But the idea that you can break down skills to the point that they can be unlocked from degrees could be expensive and inflexible and not an option for many people."
- "[I am] looking at career training and reinventing college around the education design lab, which is focused on how to make learning more flexible, more affordable, more visible, and more relevant. And in this sphere, COVID-19 has helped us in some ways to target innovation. Necessity has become the mother of invention."
- "We really have to start the conversation with what is happening to children around the world who cannot go to school and have those needs met.

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