

AAIG 2021 SUMMIT WEBINAR 4 TRANSCRIPT – USEC. WILFREDO CABRAL

Towards A Robust Ecosystem For Transformative Education

Good morning everyone. Allow me to share my screen for this presentation and the topic that I am about to discuss this morning is more on the fundamental question on how basic education can answer us to the future and how we collected [this] education as a vehicle that allows our learners to see things differently from the perspective of self and the environment. And before I proceed I'd like to of course say hello and thanks to my mentor, Dr. Fe Hidalgo and all of those who are attending virtually for taking part in this activity. As you know, the discussion that I am going to have this morning is actually inspired by one of the many books that I used to read and that has something to do with *Future Wise* education. So as I mentioned, how do we really answer everyone, our learners, to the future. And we believe that critical to this is a robust and a balanced ecosystem that will yield transformative education. You know for a fact that literature provides vast and extensive knowledge base what transformative education is. But co-creating ecosystem that supports it is one thing that we need to discover through a journey of like-minded people pushing for life-worthy learning for all learners. And given the context, the quantitative judgment of what life-worthy learning is difficult to define. Life-worthy, as Perkins puts it, is something that is likely to matter in the lives that they are likely to live. That mouthful and too broad and even the author said that it is very hard to offer a long list of those life-worthy learning. And to determine what is the bundle of knowledge that can be learned and may have an impact in their future lives is even more challenging in as such based on further articulation and elaboration. Though, we say that education needs to respond as the fast-changing world requires education beyond the basics. So we are actually in the VUCA world and it demands prohibition of education that is focused more of the unknown, much of the known. This is characterized by volatility, uncertainty, complexity and ambiguity in such that the vision of education is anchored in best guesses of what is likely to happen and foregrounded on flexible knowledge likely to inform whatever does happen. And again Perkins boldly say that educating for the unknown can be an alluring and inspiring agenda as it fosters curiosity, enlightenment, empowerment and responsibility in a complex and dynamic world. It favors a broad and visionary reach for meaningful learning. But we are now well beyond the VUCA (Volatility, Uncertainty, Ambiguity) world in that the significance of knowledge learning schools to the demands of the professions and workplaces where the meaning of the term functioning effectively has shifted profoundly in the job markets. As such, the DVUCAD (Disruption, Volatility, Uncertainty, Ambiguity, Diversity) world showed that at the front that's overshadowing everything is disruption. And whether it is in the form of technology, social change, industry, re-configuration or the like and we are about to continue to experience volatility, uncertainty, complexity and ambiguity, and added to that is diversity. And that includes

gender balance, cross-cultural and intergenerational diversity. So in the face of this deep and widespread change that are transforming our world in disrupting the institutional status quo in many sectors such as climate change, pandemic and advances in artificial intelligence, to name a few. These things pose fundamental challenges to both the goals and methods of education and these challenges throws up challenging questions. What knowledge, skills, attitudes and values of today's learners need to thrive or what they need to thrive in and shape their world and how can institutional system develop this knowledge skills, attitudes and values effectively? We say that technology and society are heavily connected and faster changes in technology often translate to changes in the society. Moreover than not, it translates to greater unpredictability in the form of the DVUCAD world. As you see in the figure, the exponential progress of computing power from 1900s to 2013 with projection in 2025 which is just four years from now as Gordon Moore observed that computing power was doubling approximately every two years, a pattern that remains consistent to this day. And from this figure, we can see that by 2025, an artificial intelligence is projected to parallel the processing capacity of human brain, and if this trend continues well beyond each year, making more progress than the year than it did before. And, so therefore, this has something to do with what again Perkins, in his book *Future Wise*, made mention about the small world paradox. He said that the recent phenomenon of buzzing connectivity in today's world make the world smaller but worlds we individually engage become more numerous and complex, the world of online and digital lives, the worlds of entertainment and media, e-books, e-travel, conferences, etc. And with these developments the hierarchical arrangement and organization of what is deemed to be important or what is deemed important to teach may not really mirror the reality of today. Instead, we need to look at curriculum, view the curriculum as a network where disciplines are developed in an interdisciplinary relationship with one another and this makes curriculum richly connected to the life and world problems and opportunities as 21st century skills inform the learning process. This is further highlighted in the goal for, of the Sustainable Development Goals (SDG) of the United Nations to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. With this goal which states that by 2030, ensure that all learners acquired the knowledge and skills needed to promote sustainable development including among others through education for sustainable and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenships and appreciation of cultural diversity and of culture's contribution to sustainable development. By stating that all learners must acquire knowledge and skills needed to live sustainably, Target 4.7 calls for a transformative change in education throughout the world. In that the inclusion of a goal and target of this nature in the SDGs was even foreshadowed in the 2012 when UN Secretary General Ban Ki-moon launched in the Global Education First Initiative and he said *"It is not enough for education to produce individuals who can read, write and count. Education must be transformative and bring shared values to life, helping people to forge*

more just, peaceful, tolerant and inclusive societies. It must give people understanding, skills and values they need to cooperate in resolving the interconnected challenges of the 21st century." Target 4.7 of the SDG is the key to achieving agenda 2030. Transformative education equips us to better respond to the global challenges and help accept us on the path towards a sustainable and resilient recovery. But how is transformative education different? So in 2011, Springer showed that this table describes the depth of a learning experience in which the first order of learning aims to increase efficiency, knowledge and making the learner realize how to do things better. The second order of learning goes so deep as to recognize the paradigm we are living in and it intends to examine assumptions and to put it bluntly do better things. And learning in the third order which goes by the name of *Epistemic Learning* is concerned with the acquisition of knowledge itself and aspires to help the learners to see things differently and is the type of learning that is transformative and consequently leads to a paradigm change. And what are the key elements in order of us to achieve transformative education? The future learning ecosystem reflects a transformation away from the disconnected episodic experiences and towards a curated continuum of lifelong learning tailored to individuals and delivered across diverse locations, media and period of time. This will pivot our systems and society to make a way from formal detached education and training towards experiential, personalized and interconnected journeys. So what are the critical areas within which we look at the transformation? So, an integrated technologically enabled learning architecture that unlocks the anticipated transformation in learning. Technology amplifies both good and bad teaching but we must not lose sight of the fact that quality teaching is and will remain the center of the learning process. Learning designers will need to understand how to apply diverse technologies, blend disparate delivery of modalities into holistic experiences, build-in and apply learning analytics, balanced and practical and collective across the diverse communities who actively contribute to the realization of transformative education. As to the commitment, achievement of the future learning ecosystems requires collective coordination across diverse communities of all stakeholders who actively contribute to the realization of that we call transformative education. The governance, in terms of governance, the governance bodies along with actual government, key performers within the ecosystem will inform policies for the future learning ecosystems. And in terms of policy, the future learning ecosystem will affect us all and in turn we can each shape and contribute to it. So these are the six critical areas and all of this must align. And we say that learning is a journey and not a destination. So to attain an effective human infrastructure we say that partnership is the answer because we need to build the network of like-minded people so that the transformative or the creation of transformative education it requires a very close cooperation between schools, the industry and authorities. That is the starting point. However, it is not enough. We also need these networks of like-minded people, the clusters were start-ups and teachers, researchers and educators from basic education to higher education as well as vocational education, the parents, business leaders, artists,

learners who can experiment with new ways of learning and new ways of teaching. And of course, we need leadership from policy makers. In that report from the 2015 global education industry summit, we need also the following to develop the powerful, purposeful networks that connect the right people and the right organization. So we need advancements in technology to create connectivity and access across the globe. We need powerful and less expensive devices, interoperability standards, APIs, single sign-ons platforms and more. These are technical and engineering solutions. We need researchers, neuroscientists and cognitive scientists and other fields of study to improve our understanding of how people learn and we need to support for research development, product testing, methods and protocols, learning analytics and data mining. We need entrepreneurs and designers and start-ups to create and pursue solutions to challenges both grand and small. We also need teachers and teacher teams to provide deep insights into pedagogy the best ways to manage group of students the methods of engagement and motivation, ways to engage students with relevant and powerful problem solving; the teachers design the curriculum, new assignments and share insights into evolving pedagogy. We need government and policy makers to ensure laws, regulations and policies that keep our rights on the public good, ensure safety and security and promote rather than hinder innovation. So, we need to think together in order to shape the future that we want. And we want to achieve education that heals, repairs, repurposes and renews. So these are the things that we need. We look at having that ecosystem that really works to transform the kind of education that we need. With all of that, I'd like to say thank you for listening.