Tec and 4 universities announce the Cyber-Physical Learning Alliance

The goal of the **alliance** between **Tec de Monterrey, Singapore University of Technology and Design (SUTD), Aalto University, Hong Kong University of Science and Technology (HKUST), and Zhejiang University is to unite cyber and physical worlds** to provide **immersive** and **interactive learning experiences**.

Details of the so-called **Cyber-Physical Learning Alliance (CPLA)** were announced during the **IFE Conference, an international educational innovation event organized by the Tec**.

Experiences of this type of learning can be exploited by **students and instructors/teachers who are present in one classroom or laboratory** at one educational institution, together with **other students or teachers participating virtually from remote locations** off-campus.

*"**Cyber-physical learning** combines **technology with a human-centric approach** that covers socialization, peer learning, student well-being, ethics, data privacy, and much more,"* explained **Chong Tow Chong, President of SUTD.**

The director described this alliance as ***"a significant leap forward in transforming education,"*** since its aim is for **learning** to be carried out **anywhere and at any time**, without physical restrictions and time constraints.

Technologies such as **augmented reality, virtual reality, the metaverse, robotics, analytics, and Artificial Intelligence** will be part of the experiences offered at partner universities.

The first **Trends and Foresight Report on Cyber-Physical Learning** was announced as part of the **CPLA** presentation, as well as the **Cyber-Physical Learning Journal.**

/> width="900" loading="lazy"> **Why is it necessary to venture into Cyber-Physical Learning?**

After the launch of the CPLA, the **Magistral Perspectives, Progress and Future Directions of Cyber-Physical Learning** panel was held, which was moderated by Michael Fung, executive director of the Tec's Institute for the Future of Education.

"We need **technological and pedagogical innovation** to leverage the best aspects of this type of learning," said **Juan Pablo Murra**, **Rector for Higher Education at the Tec.**

For Generation Z, which is always connected, **it won't be digital education**: for them, it'll **just be education,** and everything will have a digital component, so this **future requires an active pedagogical design**, which is one of the challenges of this alliance, said Murra.

According to **Chong Tow Chong**, President of **SUTD**, the lifelong learning trend will lead to lower and lower physical attendance on campus, so **cyber-physical learning will open up new opportunities.**

https://twitter.com/jpmurra/status/1750686752652640728?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetem
education-discussed-tecs-ife-conference-2024

Experiences of applying Cyber-Physical Learning

Academic leaders shared the **initiatives implemented** in their educational institutions under the branch of cyber-physical learning.

At SUTD, the **Campus X** initiative emerged as a result of the pandemic, to try to understand cyber-physical learning. Through this, they began to identify the **requirements and technologies that facilitate this type of learning**, shared Chong Tow Chong.

Similarly, Murra shared that **400 Tec classrooms were transformed from in-person to hybrid ones**, using technology to allow simultaneous remote interaction between students.

Initiatives such as the **Hologram Professor** and new spaces that are being configured with **biometric technology**, for example, will be used to enhance this type of learning.

Sean McMinn, Director of the Center for Education Innovation at HKUST, shared that his university uses **augmented reality tools in laboratories**, so that students from two different campuses can take classes simultaneously.

At **Aalto University,** they've generated around **300 cyber-physical learning pilot programs since 2016** using**podcasts, augmented virtual reality, educational games, educational videos, and 360-degree spaces,** said **Tomi Kauppinen, Head of Online Learning** at this institution.

/> width="900" loading="lazy"> **Sharing upcoming challenges**

The panelists shared the challenges they've seen after implementing cyber-physical learning activities.

The president of SUTD said that one of the challenges is **for the technologies to really be adopted by students**. *“We have different tools that we’ve developed, and we want to make sure we focus on students, otherwise it will be difficult for them to adapt to these cyber-physical spaces.”*

“*The challenge is how we can **create learning experiences that combine with different backgrounds,** such as cultural ones*,” Kauppinen remarked.

For McMinn***, “training and support for teachers** is the biggest challenge,”* he concluded.

About IFE Conference 2024

Over **3,200 attendees** registered for the tenth edition of the conference, whose central theme will be: **“Education in the era of artificial intelligence.”**

José Escamilla, Associate Director of the **Institute for the Future of Education**, noted that Artificial Intelligence has been an issue in the workplace and the field of education.

***“It has a double impact in the academic world** because the future of work is changing, and we have to change what we’re teaching at university so that people are prepared,”* said.

The tenth edition of the Tec’s educational conference was held in a hybrid format on the **Tec’s Monterrey campus** from January 23 to 25.

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