

Transformative  
 Pedagogies for  
 Social and  
 Emotional  
 Learning



Data, Learning  
 & Education -  
 Role of  
 Artificial  
 Intelligence

Reimagining Learning Spaces  
 for Planetary Citizenship

3<sup>rd</sup> Edition

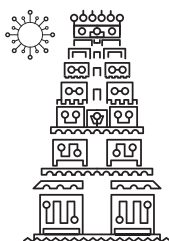
of largest conference on digital pedagogies for  
 building peaceful and sustainable societies

December

10-12, 2019

Visakhapatnam City,  
 State of Andhra Pradesh, India

**TECH**  
 Transforming Education Conference for Humanity  
**2019**  
 VISAKHAPATNAM

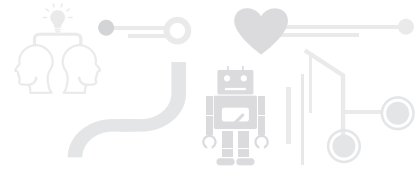


From Transmissive to Transformative Pedagogies:  
 Digital Technologies for Fostering 21<sup>st</sup> Century  
 Competencies



# TECH 2019

## CONCEPT NOTE



TECH 2019 aims to showcase the role of digital pedagogy in enabling a shift from “transmissive pedagogies” to “transformative pedagogies” to create peaceful and sustainable societies.

The challenges we face today are very different from those faced in the last millennium. While experiencing the unprecedented interconnectivity created by the Internet, we are also witnessing persistent and new disparities and tensions, alarming illiberal and undemocratic trends, and uncertainties and risks about the future of the planet we share. Interconnected local to global challenges—ranging from climate change to violent extremism—call for education that enables learners to engage creatively and responsibly with the rapidly changing world.

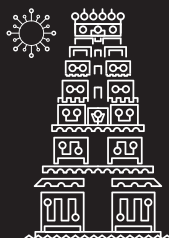


SDG Target 4.7 states, “By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development”.

In 2015, world leaders adopted the “2030 Agenda for Sustainable Development” to transform our world and accompanying Sustainable Development Goals (SDGs). Among 17 SDGs and 169 targets, Target 4.7 specifically acknowledges the importance of holistic and transformative education, highlighting the importance of education for sustainable development, peace and global citizenship.

This conference aims to further strengthen the momentum of Education for Sustainable Development (ESD) and Global Citizenship Education (GCED) by demonstrating how emotional intelligence - built by Social and Emotional Learning (SEL) aimed at building skills and competencies such as attention control, emotional regulation, perspective taking, empathy, compassion, critical inquiry and systems thinking among others - are key for sustained success in achieving SDG 4.7.

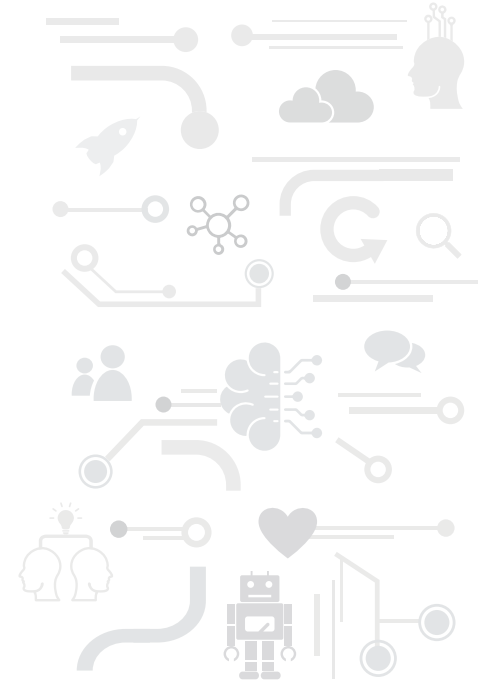
The conference aims to showcase the potential of digital pedagogies in the scaling of mainstreaming SEL in education systems, school curricula and teacher training. Digital pedagogies are beginning to transform traditional relationships of knowledge and learning, making it much easier to achieve many of the long-held pedagogical ideals such as ubiquitous learning, active knowledge making, dialogical and reflexive relationships, and individualized learning.



Pedagogically, digital technology in achieving these ideals can offer major advantages over other visualization media, because of the engaging, immersive and interactive (active rather than passive) nature of the learning experience they create (Balamuralithara & Woods, 2009<sub>1</sub>).

A key focus within digital pedagogies and building SEL competencies is the expanding possibilities of 'gamifying learning', making learning fun, interactive, self-paced and engaging (Griffiths, 2002<sub>2</sub>). Digital games have the advantage of combining immersive technology with good pedagogical practice (Francis, 2006<sub>3</sub>). Digital games are also helping educators answer ongoing assessment questions (Shute, & Ventura, 2013<sub>4</sub>), develop kids' intellectual and emotional intelligences (Farber & Schrier, 2017<sub>5</sub>), and break down the boundaries between disciplines and cultures (Darvasi, 2016<sub>6</sub>). Digital technologies offer a huge potential in transforming education that has yet to be fully explored.

Building on the success of TECH 2017 and 2018, TECH 2019 aims at showcasing the role of digital technologies in enabling a shift from "transmissive pedagogies" to "transformative pedagogies" to create more peaceful and sustainable societies. TECH 2019 focuses at drawing a blueprint for harnessing pedagogical possibilities opened up by digital technologies to contribute to enabling a revolutionary shift in education from individual content acquisition to collaborative intelligence.



## Dates

2019

**December**

10-12 TECH event

8-9 Training Workshops

**Partners:** The conference will be jointly organized by UNESCO MGIEP and the Government of Andhra Pradesh and supported by the Ministry of Human Resources, Government of India.

1 Balamuralithara Balakrishnan and Peter Woods. Virtual laboratories in engineering education: The simulation lab and remote lab. Computer Applications in Engineering Education, Vol. 17.

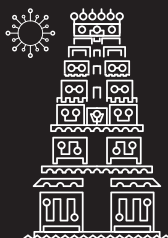
2 Mark Griffiths. The educational benefits of video games. Education and Health. Vol 20. No. 3.

3 Russell Francis. Towards a Theory of a Games Based Pedagogy. JISC Innovating e-Learning 2006: Transforming Learning Experiences online conference

4 Valerie Shute and Matthew Ventura. Stealth assessment: measuring and supporting learning in video games. The John D. and Catherine T. MacArthur Foundation Reports on Digital Media and Learning.

5 Matthew Farber and Karen Schrier. The Limits and Strengths of Using Games as "Empathy Machines". UNESCO MGIEP. Working Paper

6 Paul Darvasi. Empathy, Perspective and Complicity: How Digital Games can Support Peace Education and Conflict Resolution. UNESCO MGIEP. Working Paper 3



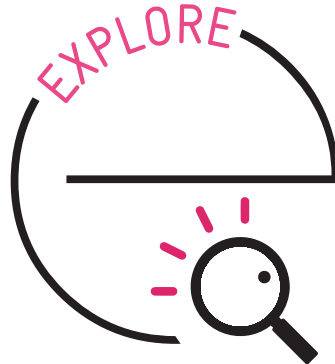
Contact:

[tech2019.mgiep@unesco.org](mailto:tech2019.mgiep@unesco.org) | [mgiep.unesco.org/tech2019](http://mgiep.unesco.org/tech2019)

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# Conference Tracks

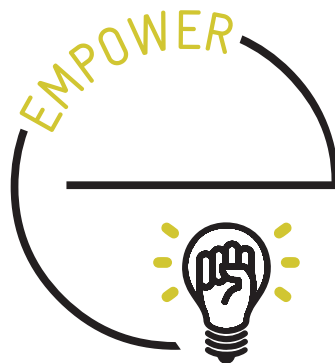


Explore: To highlight insights from the latest research from the neurosciences, data science, cognitive and behavioral sciences to understand the potential of digital technology to transform education.

Experience: To share on the ground real life experiences gained from the use of digital learning tools to augment SEL, ESD, GCED and related areas in and out of the classroom.



Empower: To develop capacities and readiness of participants to explore using digital learning tools to take action to shape peaceful and sustainable societies.



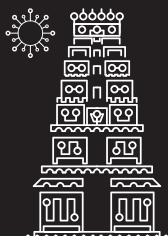
# Conference Objectives

The conference is expected to generate the following outputs and follow up measures:

A Conference proceeding on selected papers

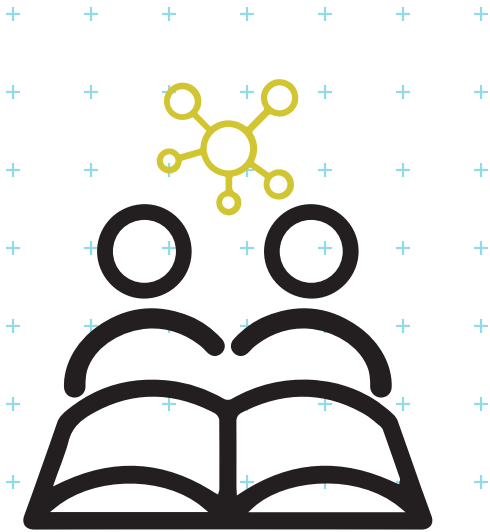
Experts Statement on use of Artificial Intelligence (AI) and the ownership of education-related information

A Call for Action to mainstream SEL in education systems





# Conference Themes

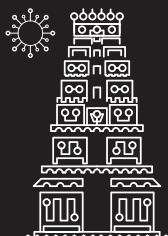


## Theme 1: Transformative Pedagogies for SEL

The need for resilient and adaptive individuals to rapidly changing environments is the need of the hour. Recent research has demonstrated that students need to be “socially aware” and “emotionally-connected” in order to learn and for societies to flourish. That SEL skills can now be explicitly taught in the classroom has also been demonstrated. UNESCO MGIEP seeks to promote the idea that SEL is not only building both emotional and intellectual intelligence but is key to achieving peaceful and sustainable societies and this can be delivered to all learners through the use of innovative technologies.

### Participants are invited to:

- Present the research evidence for SEL delivered in traditional and/or digital forums
- Showcase good practices in curricula for building social and emotional skills through gaming and digital learning tools and methodologies
- Provide hands-on training to educators and youth to develop and employ innovative gaming and digital learning technologies to directly or indirectly deliver SEL experiences that promote values of peace, global citizenship and sustainable development



# Conference Themes



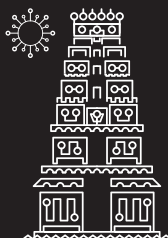
## Theme 2: Reimagining Learning Spaces for Planetary Citizenship

To achieve a more peaceful and sustainable society, we need to move away from a culture of competition towards a culture of peace and collaboration, recognizing spatial and temporal interdependence amongst us, and our embeddedness and dependence on the ecosystems. For education to be transformative, it must explore notions of intersectionality and create learning spaces conducive for people to take multiple perspectives, engage in dialogue and critical reflection, and transform society through self-transformation.

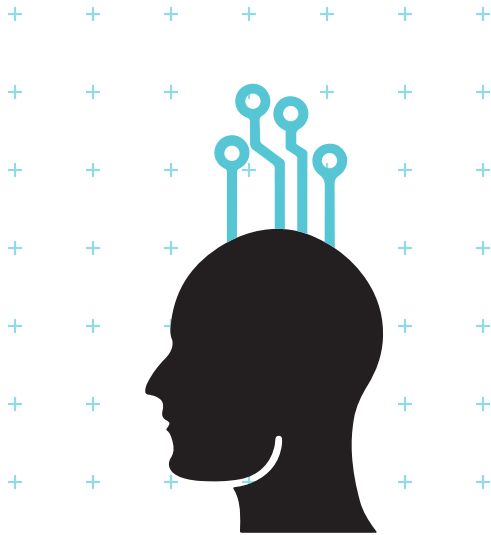
Experts and practitioners of education for sustainable development (ESD), global citizenship education (GCED), global learning, human rights education, peace education, education for gender equality and education in general are invited to explore approaches to build a culture of peace and sustainability at school and community levels. This may include efforts facilitated by technology, face-to-face interactions, scenario exercises, and community-based activities.

### Participants are invited to:

- Organize a scenario building workshop to envision probable, possible and desirable futures
- Share good practices of integrating ESD, GCED, global learning, human rights education, peace education, education for gender equality etc. in whole school approaches or informal or non-formal learning spaces
- Showcase examples of innovative practices for using games or simulations to build awareness on concepts of peace and sustainability, or SEL



# Conference Themes

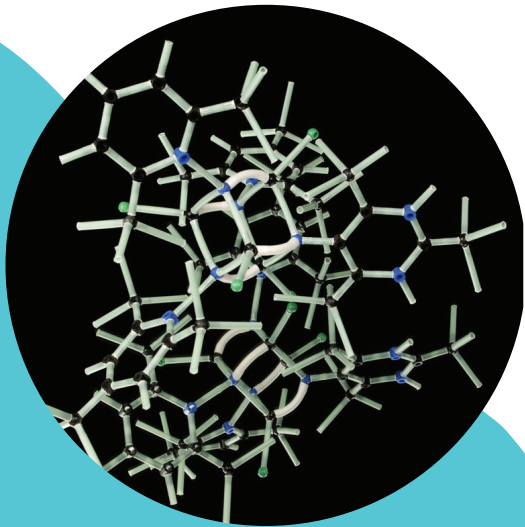


## Theme 3: Data, Learning & Education - Role of AI

Data Science, in general, & Machine Learning, in particular, has caught the imagination of the world and field of education too has seen widespread utilization leveraging 'narrow' (specialized) AI such as automated grading, adaptive learning, individualized content discovery at scale. AI could instantly help discover an astounding amount of information, curate supplementary learning resources to meet individual student interests and needs, provide teachers with a virtual teaching assistant, and allow students to connect with peer learners as well as a virtual peer or tutor wherever and whenever needed. The collective wisdom of teachers and students could be garnered to expand the realm of possibilities for education.

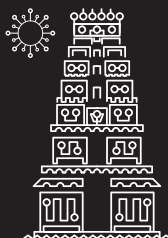
### Participants are invited to:

- Critically reflect upon the profound impact AI could have on how education and training is organized, including the automation of not only low-skill or routine tasks but also high-skill and cognitive tasks; the redefinition of 21st century skills; and the rethinking of the meaning of human existence and well-being
- Share ideas on if and how we can or should embed the principles and values of peace and sustainable development in AI
- Showcase cross-border data exchange and data mining protocols facilitating sharing of global insights powered by distributed Data sources



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Contact:

[tech2019.mgiep@unesco.org](mailto:tech2019.mgiep@unesco.org) | [mgiep.unesco.org/tech2019](http://mgiep.unesco.org/tech2019)

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## Conference format

The main format are: Keynotes, catalytic panels, debates, paper/poster presentations & workshops. The discussions are encouraged to be interactive in nature in order to provide participants with an opportunity to dialogue, exchange best practices and establish connections and contacts. A highlight of the conference will be extensive access to academic experts and innovative technologies for transformative pedagogies.

## Target audience

Participants in the conference would come from the field of education technology and education for peace, sustainable development and global citizenship comprising of senior policy makers, academics, education technology specialists, educators and teachers, curriculum designers, researchers, learners, students, game designers, ed-tech exhibitors and more.

## Working language

The working language of the conference will primarily be English.

## About Visakhapatnam (Vizag) City

TECH 2019 will be held in Visakhapatnam in India – a coastal port city, often known as The Jewel of the East Coast, situated in the state of Andhra Pradesh. Nestled among the hills of the Eastern Ghats by the Bay of Bengal, Visakhapatnam offers the best of India's vibrant culture, fascinating architecture, jewel-like beaches, gastronomic delights and more.



# About Organisers



## UNESCO MGIEP

The UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP) is UNESCO's category 1 Research Institute that focuses on Sustainable Development Goal (SDG) 4.7 towards education for building peaceful and sustainable societies across the world. In line with its vision of 'Transforming Education for Humanity', the Institute employs the whole-brain approach to education, with programmes that are designed to mainstream Socio-Emotional Learning in education systems, innovate digital pedagogies and to put youth as global citizens at the centre of the 2030 agenda for Sustainable Development.

## The State Government of Andhra Pradesh, India

The State Government of Andhra Pradesh aims to transform the state into a "globally competitive and happy society" and has charted out its Vision 2029 for the State. The Vision focuses not just on economic growth but also on happiness / well-being and Andhra Pradesh aims to be No. 1 in the World by 2050, thereby influencing global communities. In achieving this vision, access to education and use of digital transformative pedagogies (SDG 4) have been identified as key factors that will "influence people's well-being".

