



United Nations
Educational, Scientific and
Cultural Organization



Mahatma Gandhi Institute
of Education for Peace
and Sustainable Development



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Government of India
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artificial intelligence
 sustainable societies emotional intelligence
 digital learning peaceful societies
 paper presentations debates artificial intelligence
 STEM+ transformative
 collaborative intelligence
 intellectual intelligence
 transforming education SDG 4.7
 21st century competencies
 games for learning
 mixed reality youth mock classrooms virtual reality
 catalytic sessions
 socio-emotional learning

NOVEMBER 15 – 17, 2018

NOV. 14: BY INVITE ONLY
HIGH LEVEL POLICY FORUM

VISAKHAPATNAM CITY, STATE OF ANDHRA PRADESH, INDIA

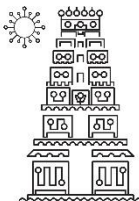
www.mgiep.tech | tech2018.mgiep@unesco.org

TECH

Transforming Education Conference for Humanity

2018

VISAKHAPATNAM



FROM TRANSMISSIVE TO TRANSFORMATIVE PEDAGOGIES:
DIGITAL TECHNOLOGIES FOR FOSTERING 21ST CENTURY
COMPETENCIES

CONCEPT NOTE

2ND EDN. OF
TECH



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TECH 2018 aims to showcase the role of digital technologies 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 we 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.

In 2015, in their endeavour to work towards transforming our world, world leaders adopted the “2030 Agenda for Sustainable Development” and the accompanying Sustainable Development Goals (SDGs). Among the 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.

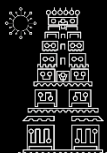
SDG Target 4.7

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.

4 QUALITY EDUCATION



At the same time, digital technologies 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 personalised learning. Technological advances are also expanding the possibilities of ‘gamifying learning’, making learning fun, interactive, self-paced and engaging. Digital games have the advantage of combining immersive technology with good pedagogical practice. They are also helping educators answer ongoing assessment questions, develop children’s intellectual and emotional intelligences, and break down the boundaries between disciplines and cultures. Digital technologies offer a huge potential, yet to be fully explored, for transforming education.



Contact: tech2018.mgiep@unesco.org | www.mgiep.tech | www.facebook.com/mgiep
www.twitter.com/unesco_mgiep | www.instagram.com/unesco_mgiep

Tel: +91-11-23 07 23 56–60



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Official Dates

Dates	Details
Wednesday, 14 November, 2018	High Level Policy Forum (invitation only) – TBC
Thursday, 15 November – Saturday 17 November, 2018	TECH 2018

Partners

The conference will be jointly organised by UNESCO MGIEP and the Government of Andhra Pradesh and supported by the Ministry of Human Resource Development, Government of India. Prospective sponsors and Knowledge Partner of the event include Microsoft, Ubisoft, Unity Technologies, Samsung, HP, Tata Trusts, ISTE and AFS.

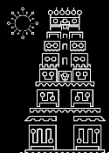
Conference Objectives

TECH 2018 aims to:

1. Provide a platform for dialogue and capacity building across gaming, digital pedagogy and education stakeholders, including students, teachers and young people;
2. Showcase and demonstrate pedagogical possibilities opened up by gaming and digital technologies in enabling learners to develop 21st century skills and competencies to shape peaceful and sustainable societies;
3. Critically reflect upon and articulate institutional and ethical implications of embracing digital solutions to education.

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

- A **Conference Declaration** on guidelines for the use of games and digital learning in education
- A **Call for Action** to mainstream Social and Emotional Learning (SEL) in education systems using digital interactive technologies



Contact: tech2018.mgiep@unesco.org | www.mgiep.tech | www.facebook.com/mgiep
www.twitter.com/unesco_mgiep | www.instagram.com/unesco_mgiep
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Conference Themes

Theme 1: Transformative Gaming and Digital Pedagogies for SEL

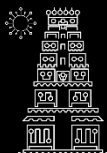
The need for individuals, resilient and adaptive to rapidly changing environments, is the order of the day. The need for building not only intellectual intelligence but also emotional intelligence has never been greater. Recent research increasingly demonstrates what supporters of SEL have long advocated that students need to be “socially aware” and “emotionally-connected” for them to learn and for societies to flourish. In recent years, it has been demonstrated that SEL skills such as empathy, mindfulness and compassion can be explicitly taught and learned. Indeed, research suggests that SEL skills impact positively both academic performance and behavioural outcomes. UNESCO MGIEP promotes the idea that building both emotional and intellectual intelligence 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 directly or indirectly through transformative gaming and digital pedagogies, which have implications for achieving SDG 4.7
- 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 technologies to directly or indirectly deliver SEL experiences that promote values of peace, global citizenship and sustainable development.

Theme 2: Beyond Four Walls of the Classroom

Rather than embracing everything digital, participants are invited to explore how digital technologies can overcome constraints imposed by highly institutionalised features of modern schooling, including assessment of learning as memory of textbook knowledge. Experts and practitioners of education for sustainable development (ESD), global citizenship education (GCED), global learning, peace education and education in general are invited to examine, together with ed-tech stakeholders, the role of digital technologies in whole-school approaches and other holistic efforts to build a culture of peace and sustainability at the school and community levels.



Theme 2: Beyond Four Walls of the Classroom (continued)

Technologies can be used to:



“mediate or supplement
relationship between
teachers and learners”



“present and assess
learnable content”



“provide spaces where
students do their work”



“mediate peer-to-peer
interactions”

Source: Created based on the conceptualisation of e-learning by Bill Cope and Mary Kalantzis, *e-Learning Ecologies: Principles for New Learning and Assessment*, Routledge, 2017, p.1.

Participants are invited to:

- Explore the role of games and digital learning in teaching and assessment of knowledge, skills, values and attitudes associated with SDG 4.7
- Highlight the role of digital technologies in problem-based/project-based learning for peace and sustainability
- Present good practices on the use of crowdsourcing for promoting education for peace and sustainable development
- Present pedagogical possibilities opened up by digital games, Virtual Reality (VR), Augmented Reality (AR), or Mixed Reality (MR) in formal or non-formal ESD and GCED, or in both.

Theme 3: Transformative Gaming and Digital Pedagogies for STEM+

Core subjects such as Mathematics, Science, and Languages often occupy a privileged place in the school curriculum in terms of time allocation and mandatory and examinable status. These subjects are usually taken seriously by students, parents, teachers and policymakers alike as they are assumed to enhance economic competitiveness—both at the individual and national levels. In fact, many digital learning management systems focus on delivering content on Mathematics, Science and English. Given the status of these subjects, it is important to understand: What do transformative digital pedagogies for STEM+ subjects look like? How can digital technologies contribute to building problem solving and creative, critical and systemic thinking skills? How can they facilitate issue-based or thematic approaches in the teaching of core subjects? How can they combine learning of the content prescribed by the curriculum with creative expressions? How can new, innovative and fun ways be used through games and digital learning for assessment of knowledge?



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Theme 3: Transformative Gaming and Digital Pedagogies for STEM+ (continued)

Participants are invited to:

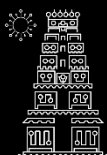
- Present cases of Mathematics, Science or Language Education delivered through transformative digital pedagogies, which has particular implications for building problem solving and critical thinking skills
- Showcase good practices in digitally mediated pedagogies for building literacy and numeracy along with curiosity, creativity and critical thinking skills
- Provide hands-on training to educators and youth to develop and employ innovative technologies to deliver STEM+ education experiences that promote values of peace, global citizenship and sustainable development.
- Demonstrate the use of digital games for learning and assessment in the STEM+ field
- Showcase digital pedagogical innovations for children with “Difference Learning” (dyslexia, dyscalculia, dyspraxia and dysgraphia).

Theme 4: Artificial Intelligence and the Future of Education

Artificial Intelligence (AI) has caught the imagination of the world and has been gaining popularity in the business sector. To date, the use of AI in education has been limited and at times contested; most arguments against it centre on how it will make teachers redundant and learning more automated than it is currently. Rather than replacing teachers and making learning impersonal, AI could take learning to a completely new level. It could instantly generate 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. In the classroom, this could increase valuable time for more teacher-student and student-student interaction and more engaging and immersive learning experiences. The collective wisdom of teachers and students could be garnered to expand the realm of possibilities for education. What are the implications of AI for the future of education? UNESCO MGIEP embraces the need for education to prepare learners for the world profoundly changed by new frontiers in AI.

Participants are invited to:

- Critically reflect upon the profound impact AI could have on how education and training is organised, 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 reinvention 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
- Present innovative ideas on the use of AI as part of Learning Management Systems (LMS)
- Present AI options for assessments and analytics to guide learning
- Showcase the use of AI in harvesting data from existing data sources such as the UNESCO Institute of Statistics database among others.





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Theme 5: The Institutional Framework for Application of Digital Technologies in Education: Towards Surveillance or Collaborative Intelligence?

Learning Analytics, enabled by increasingly sophisticated data collection and information retrieval techniques, holds a great promise for optimising learning. At the same time, it raises concerns about privacy and data protection that need to be addressed by normative frameworks and policy guidelines. A major challenge concerns the ethical implications of data surveillance. Digital technologies are making personalised learning more practical and opening up a myriad of pedagogical possibilities. They are, however, also enhancing the capacity of governments, companies and individuals to undertake surveillance, which may violate or abuse human rights, in particular the right to privacy. In addition to privacy, data protection and surveillance issues, the use of digital media to transform information to knowledge and then to intelligence also raises issues related to intellectual property rights and the ownership of intelligence. The question of what constitutes a private good and a public social good is critical in determining how education systems evolve in the future.

Participants are invited to:

- Present efforts to improve national laws and practices with respect to surveillance issues in a digital age, including preventative measures, sanction and remedies
- Present ideas to prevent the private sector from committing violations and abuses of the right to privacy
- Discuss moral and policy issues surrounding student privacy raised by learning analytics.

Still can't find a match for your idea in any of the above topics.....It's not the end...go ahead and share your story and challenge us!

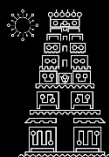
Conference Formats

The main formats of the conference are:

- Keynotes (Plenary, by invitation only)
- Catalytic Panels and Debates (by invitation only)
- Breakout Sessions (Panel Discussion, Workshop or Paper Presentation)
- E-Poster Exhibitions
- Learning Zone
- Maker Space
- Mock Classrooms

The discussions will be interactive in nature in order to provide participants with an opportunity to dialogue, exchange good practices and establish connections and contacts. A highlight of the conference will be extensive access to academic experts and innovative technologies for transformative pedagogies.

Submissions are invited for all sessions listed overleaf.





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Target Audience

Participants in the conference will be experts in the field of education technology and education for peace, sustainable development and global citizenship comprising of Ministers of Education, senior policy makers, education technology specialists, educators and teachers, curriculum designers, researchers, learners, students, game designers, ed-tech exhibitors and more.

Working languages

The working language of the conference will primarily be English.

About Visakhapatnam (Vizag) City

TECH 2018 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.

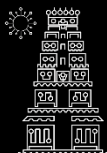


About UNESCO MGIEP

The 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 SEL in education systems, innovate digital pedagogies and to put youth as global citizens at the centre of the 2030 agenda for Sustainable Development.

About 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".



Contact: tech2018.mgiep@unesco.org | www.mgiep.tech | www.facebook.com/mgiep
www.twitter.com/unesco_mgiep Tel: +91-11-23 07 23 56-60