



CENTRE FOR ESCALATION OF PEACE



# ENABLING ENVIRONMENT

# INTEGRATING TECHNOLOGY, INCLUSION, AND COMMUNITY

27<sup>th</sup> February 2025

WEBINAR REPORT









# ENABLING ENVIRONMENT

INTEGRATING TECHNOLOGY, INCLUSION, AND COMMUNITY

# Thursday, 27 February 2025



Student St. Stephen's College Delhi, India



PANELISI GUNJAN TOMAR Science and STEM Facilitator Heyward Gibbes Middle School, Columbia, USA In this webinar we will discover innovative strategies for integrating technology, promoting inclusivity, and engaging communities. Learning how to create dynamic learning environments that equip learners for success in a rapidly changing world.



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### INTRODUCTION

The 17th webinar hosted by Pallavan Learning Systems, in collaboration with Ritinjali and the Centre for Escalation of Peace, explored the theme Enabling Environment: Integrating Technology, Inclusion, and Community. As education continues to evolve in the 21st century, the discussion centred on the thoughtful integration of digital tools, inclusive methodologies, and community-driven initiatives to create dynamic and accessible learning environments.

The webinar examined how technology serves as a catalyst for personalised learning, engagement, and accessibility through AI-driven platforms, online courses, and assistive technologies. It also highlighted the critical need for equitable access to digital resources, ensuring that all learners—regardless of background or ability—can benefit from technological advancements. Strategies for bridging the digital divide were discussed, including teacher training, community learning centres, and collaborations with technology providers to enhance access in underserved areas.

Beyond technology, the discussion underscored the significance of integrating digital tools with real-world learning experiences. This included leveraging community partnerships, nature-based education, and interdisciplinary projects that enable holistic development. The role of parents, local organisations, and educators in guiding the responsible use of technology was also explored, reinforcing the need for a balanced approach that harmonises digital innovations with traditional learning methods.

The audience engaged actively throughout the session, raising pertinent questions about the ethical use of AI in classrooms, the potential risks of over-reliance on digital tools, and the long-term impact of technology on students' cognitive and social development. Attendees also sought insights into how educators can be better prepared to integrate digital tools effectively and how schools can foster digital literacy without widening existing educational inequalities. These thought-provoking discussions contributed to a deeper understanding of both the opportunities and challenges associated with integrating technology, inclusion, and community in education.



## ABOUT THE SPEAKERS



Moderator: **Dr Saroj Thapa** Programme Director Pallavan Learning Systems, Delhi, India

Saroj Thapa is a seasoned education professional with over 35 years of experience specialising in developing effective curriculum, establishing efficient systems and processes in schools, enhancing the capacity in faculty, and developing an inclusive school culture to support all learners. With a PhD in Education and Psychology from the University of Geneva in Switzerland and extensive experience in higher education across diverse cultural contexts, she is passionate about Inclusive Education, and Teacher Professional Development.

Panelist: **Jigme Tenzin Nidup** Student St. Stephen's College, Delhi, India

Jigme Tenzin Nidup studied at The Royal Academy for six years before pursuing a degree in Physics at St. Stephen's College, University of Delhi. He is deeply curious about the process of learning and believes that valuable lessons can be found in every experience. An avid reader and writer, he enjoys engaging with thought-provoking content and sharing his insights through his online platform, jigme-mesh.ghost.io. Beyond academics, he is passionate about music and is an active member of his college band, dedicating his time to practising, travelling, and performing. His long-term goal is to imbibe the knowledge he acquires and utilise it to make meaningful contributions to society.



Panelist: **Gunjan Tomar** Science and STEM Facilitator Heyward Gibbes Middle School, Columbia, USA

Gunjan Tomar is a dedicated Science and STEM Facilitator at Heyward Gibbes Middle School, USA, bringing extensive experience as a Learning Support Specialist, SEL coach, researcher, and educator. Passionate about fostering inquiry-based learning, she designs engaging, scaffolded lessons to make science accessible and exciting for middle school students. As a Microsoft Innovative Educator Expert and Microsoft Certified Educator in 21st Century Learning Design for ten consecutive years, Gunjan integrates technology to personalise learning according to students' needs. She also conducts teacher training workshops, empowering educators with innovative strategies. An advocate for equitable learning, she is committed to making science and STEM education inclusive and impactful for all students. She also works as a consultant with various organisations to develop innovative educational resources, design teacher training programmes, and implement STEM and SEL initiatives that enhance student engagement and learning outcomes.





Panelist: **Madhu Maya Limbu** Aesthetics and Technology Domain Head Druk Gyalpo's Institute, Bhutan

Madhu Maya Limbu holds a master's degree in Computer Science and has been a tech teacher for over 10 years. Before transitioning into teaching, she worked as a system analyst for a year and a half. Passionate about education, she constantly seeks innovative ways to integrate technology into learning experiences and the broader learning process.



## WEBINAR SESSION



#### Technology as a Catalyst for Learning

Jigme Tenzin Nidup opened the discussion by highlighting how technology has revolutionised education by making learning more accessible, engaging, and personalised. He shared his experiences using digital platforms such as Coursera and EdX, explaining how these resources have enabled him to expand his learning beyond traditional classrooms. He also emphasised how AI-driven adaptive learning platforms help cater to individual learning needs by providing personalised feedback and recommendations.

Jigme elaborated on the role of gamification in education, citing examples of how interactive digital tools, including gamified quizzes and simulations, enhance student engagement and comprehension. He also discussed his experience with Python and simulation tools for astrophysics research, showcasing how technology facilitates deeper exploration and critical thinking.

Another key point Jigme raised was the importance of global collaboration through technology. He described how students from different parts of the world work together on digital projects, participate in online competitions, and share ideas, fostering cross-cultural learning experiences.

#### **Importance of Inclusive Education**

Gunjan Tomar focused on the importance of inclusivity in education and how technology can play a transformative role in making learning more equitable. She highlighted tools such as Immersive Reader and Dictation, which support students with learning difficulties by offering text-to-speech capabilities and adaptive content adjustments.

She emphasised the need for teacher training, explaining that while digital tools can be powerful, they require educators who are well-versed in their effective use. She suggested the implementation of "train the trainer" programmes, where teachers who are proficient in using digital tools can mentor their colleagues. She also discussed universal design for learning (UDL) and project-based learning as methods to create more inclusive classrooms.

She further addressed the challenge of digital literacy, explaining that while access to technology is improving, there is still a gap in how effectively it is used in classrooms. She recommended incorporating digital literacy training into teacher education programmes to ensure that both teachers and students can make the most of available technological resources.

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#### Learning through Community and Collaboration

Madhu Maya Limbu spoke about the integration of technology with real-world and community-based learning experiences. She shared examples from her work at Druk Gyalpo's Institute, where students participate in activities such as stargazing sessions, radio telescope experiments, and environmental conservation projects. She emphasised how these experiences, when combined with technology, enhance learning outcomes by fostering curiosity and critical thinking.

She also discussed projects that integrate technology with social impact, such as the creation of tactile maps for visually impaired students. These projects not only develop students' technical skills but also instil a sense of responsibility towards their communities.

Madhu reinforced the idea that technology should not replace traditional learning but complement it. She advocated for a balanced approach that integrates digital tools with hands-on, inquiry-based learning experiences.

#### Bridging the Digital Divide

One of the critical themes discussed in the webinar was the digital divide and the need to ensure equitable access to technology. The panelists proposed several solutions, including:

- Strengthening government policies to enhance ICT infrastructure in underserved areas.
- Establishing community learning centres to provide free access to digital resources.
- Encouraging student-led initiatives where learners can mentor others in their communities.

• Partnering with technology companies to facilitate CSR-driven projects aimed at improving digital accessibility in marginalised communities.

# Q&A

Q1: How can we bridge the digital divide and ensure marginalised communities have equal access to education?

Gunjan Tomar: "We need to focus on training teachers to use technology effectively so that they can empower students in marginalised communities."

Madhu Maya Limbu: "Government policies must prioritise ICT development in schools to ensure equal access to digital tools."

Jigme Tenzin Nidup: "Community learning centres where students can share digital knowledge could be a viable solution."

Q2: What are the biggest challenges teachers face in integrating AI and digital tools in classrooms?

Gunjan Tomar: "The rapid pace of technological change makes it difficult for teachers to keep up, which is why peer mentoring and continuous training are essential." Jigme Tenzin Nidup: "There is hesitation among educators about AI adoption due to concerns about job security and lack of familiarity, which must be addressed through awareness programmes."



Q3: How can schools introduce machine learning in their curriculum?

Jigme Tenzin Nidup: "Starting with fundamental programming concepts and then gradually introducing machine learning applications through hands-on projects is an effective approach."

Madhu Maya Limbu: "A strong foundation in Python and data science is crucial before delving into machine learning concepts."

# CONCLUSION

The webinar provided a comprehensive exploration of how technology, inclusion, and community engagement intersect in education. By fostering a balanced approach that integrates digital tools while preserving the essence of traditional learning, schools can create more dynamic and inclusive learning environments. The insights shared in this session underscore the importance of teacher training, digital literacy, and community involvement in ensuring that technological advancements benefit all learners.

The audience actively participated, raising insightful questions and sharing their perspectives on the challenges and opportunities presented by digital learning. The discussions and recommendations from this webinar offer a roadmap for educators, policymakers, and community leaders to work towards a more inclusive and technologically empowered education system.





To watch the Webinar Video, click <u>here</u>. <u>Click here</u> to check the <u>playlists</u> of related videos.





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