

Transdisciplinary Research and Education – A Perspective

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Transdisciplinary Research and Education is a growing field in many subject domains such as Sustainability, Health and Medicine, Natural Sciences, Social Sciences, Engineering, and Technology. In a globally oriented, complex world, problems can often best be solved by transdisciplinary collaboration. The participants include academic and non-academic actors, community stakeholders, governments, and other leaders, who jointly define the problem and find solutions. Knowledge sharing and mutual learning is integral to transdisciplinary collaboration. Another aspect of such collaboration is the use of the right technologies.

The focus of the presentation is to give a broad perspective of the field of transdisciplinary research and education. Real life examples from industry and academia demonstrate the importance of this growing field. The pertinent issues in educating tomorrow's leaders in transdisciplinary thinking are brought to the forefront. The fundamental role of an educator and the new structure of course and curriculum design are presented. Finally, the role of technology in facilitating transdisciplinary research and education is addressed.

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Dr. Pratap Chillakanti holds two technical PhDs, one in Information Security, and one in Transdisciplinary Research and Education. He also holds an MBA from University of Chicago Booth School of business. Pratap is an Entrepreneur, Adjunct Professor, Researcher, and a Mentor. He has over 30 years of experience in both the Silicon Valley technology industry and the academia in institutions like the University of California at Berkeley.

Dr. Chillakanti is a pioneer. In 2011, through his startup Lensoo Inc., he was the first to introduce a self-organized SaaS cloud ecosystem for collaborative learning, teaching, and knowledge sharing. In 2021, Pratap launched a new startup, Rewards Cloud Inc. It provides a transformative solution to motivate, incentivize, and reward channel partners, customers, and employees. A success story in this regard is that Pratap's team developed a customized solution to transform Cisco's channel partner incentives. His team supports an ecosystem of over 30,000 individual partner sellers who earn rewards driven by dynamic incentives.

In the academic environment, Pratap had the privilege of co-teaching graduate courses in Computer Science at University of California, Berkeley along with his mentor (late) Professor C.V. Ramamoorthy, a founding father of Computer Science/Software Engineering. Pratap also taught courses through the UC Berkeley extension. In the time 2015-2017, Pratap was invited as a Visiting Professor by his alma mater in India, Jawaharlal Nehru Technological University at Kakinada (JNTUK), to introduce MOOCS for over 25+ Engineering colleges in the University system. As part of this effort, he had trained the faculty in facilitating effective online teaching.

Pratap has numerous publications in journals, books, and conferences in information security, dynamic collaboration, and transdisciplinary research and education. He is a frequent speaker at conferences. He personally supports many education initiatives especially for the less fortunate. Pratap firmly believes in sharing his entrepreneurial success stories and challenges. He actively mentors other entrepreneurs while continuing his own aspirations to change the world through his innovations. Pratap does enjoy personal time with his two sets of twins (two boys and two girls) playing golf, biking, hiking and just chilling out with them.