

Keynote speech

Importance of Connectivity in Overall Development of Society

Rakesh Tamrakar
Leading Specialist at Vivo
 China
rakesh@vivo.com

ABSTRACT

Wireless mobile communication technologies have evolved from 1st generation of technologies to current 5th generation. In addition, 6th generation mobile communication technical standards are currently under development, which is expected to be completed in the year 2029. We have witnessed how mobile communication technologies transformed the society; even 2nd generation technology GSM has been useful today for simple connectivity in remote villages in Nepal.

In mountainous country like Nepal, affordable wireless communication is important. It is impractical, if not impossible, to bring fiber optical cables to remote mountains. To reduce the digital divide, we have to rely on affordable and reliable wireless communication technologies to bring digital connectivity to the remote villages. Wireless broadband services shall be made available to remote villages. Basic services like education, health and government services can be provided remotely using wireless technologies.

Talents are everywhere but opportunities are not. A complete overhaul of society as well as overall development is possible by adopting AI technologies with high-speed mobile broadband connectivity. A concept of extended classrooms can be developed using wireless connectivity while AI can be used as source of knowledge.

Furthermore, Low Altitude economic infrastructure can be very useful. It is costly and takes long time to build roads to every single village in remote mountains. The '*Low Altitude*' economic infrastructure with 5G connected drones can vitalize economic activities in remote places with efficient delivery of goods and services. For example, delicious apples from Jumla can be transported cheaply to Kathmandu; vaccines, medicines, books can be swiftly delivered to remote villages.

In the age of rapid development of AI technologies, there are challenges and opportunities, it is not possible to predict what happens in coming years, but we need to get ready and embrace it for better future.

Index Terms— skills obsolescence, micro - credentials, lifelong learning, digital transformation, education – industry misalignment.

Speaker's short biography:



Rakesh Tamrakar is a Leading Specialist at Vivo. He has bachelor's degree in *Radio Communication* and master's degree in *Signal and Information Processing* from Beijing University of Posts and Telecommunications. He has been working in mobile communication technologies research and standards since 2000. He is regularly attending global 3GPP standards meetings, currently involved in 6G mobile technologies research and standardization.