

# **Digital Technologies and the Next Internet: The basis for the next Cyber Learning Revolution**

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## **Abstract**

Rapid advances and technological breakthroughs have set the stage for the next Information Centric revolution involving Cyber Learning in engineering education. With the advent of the next Internet and the proliferation of cloud and related technologies, the potential impact on engineering education is expected to be phenomenal. The new Internet is being developed as part of the US GENI, European FIRE and other initiatives and will enable the use of immersive, haptic and other digital technologies to create innovative learning experiences which hold the potential to provide educational opportunities for the next generation of engineering students. Engineering educators will be able to design and provide immersive learning experiences for a global community while sharing a multitude of cyber and physical resources.

## **Bio**

Joe Cecil is a pioneer in the creation of cyberlearning approaches in engineering education. Over the past decade, he has been developing immersive Virtual Reality based learning environments for engineering students as well as studying its impact on learning and engagement. Recently, he has been involved with exploring the use of GENI (Global Environments for Network Innovation) frameworks to support cyber learning activities. His engineering research expertise is in the design of information centric frameworks involving modeling, simulation and exchange of information for a range of emerging and traditional process domains including micro assembly, space systems and biomedical systems. He also coordinates the Soaring Eagle program at Oklahoma State University which is an outreach program aiming to provide an exciting and early introduction to engineering for K-12 school students. Dr. Cecil is an Associate Professor in the School of Industrial Engineering at Oklahoma State University.