Innovative Pedagogies: Hands on in the Digital Studio.

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In order to prepare our students to be next generation leaders they need to be equipped with skills that can bring new forms of collaborative practice to the profession when they graduate. Our department is looking for ways to increase classroom engagement that is currently limited by students working ‘alone’ on laptops. The paper will discuss how the pedagogy and studio environment is augmented through the use of interactive screen technology (60” smart-boards) and the use of the Collaborative-Research Augmented Immersive Virtual Environment Laboratory (CRAIVE) at RPI to teach students how to communicate spatially complex objects to a collaborator and/or an audience. The CRAIVE lab measures roughly 20’ x 30’ x 14’h. The lab has the capability to project sound, through a digital speaker array along with floor-to ceiling, 360 wrap-around, images, and / or interactive animations.

As part of the 2016 RPI Teaching and Learning Grant, Rensselaer undergraduate architecture students are using touch screen technology that allows them to actually move their hand(s) across the screen to place the audience within an architectural space. Cities and buildings, can be enlarged, and viewed from many angles while allowing students and the instructor to isolate design problems, and draw alternatives...
on the screen in a group setting, using Rhino. Key to the success of this technology is preparing freshman students to integrate smart-screen workflows in the design studio so that are prepared to utilize the CRAIVE Lab for presentations during the second year studios.

• Author(s) Biography (200 words each):

Rhett Russo currently serves as the Undergraduate Chair in the School of Architecture at Rensselaer Polytechnic School of Architecture. As a Master’s student at Columbia University, Professor Russo participated in the first ‘paperless’ design studio in the school’s history in 1995. Since that time his pedagogy has been influenced by hybrid forms of teaching that combine analog and digital formats for teaching design, fabrication, and forms of manufacturing. He has 15 years of experience as an architectural design coordinator (MARCH and BArch) where he implemented digital design pedagogy in the first year curriculum at Pratt Institute, NJIT, Penn Design, and RPI. He also served as the Washington University St. Louis Ruth & Norman Endowed Professor in 2013.