

Georgia Tech's SimTigrate Lab and the School of Industrial Design: Studio-based design and development of healthcare facility prototype environments.

Georgia Tech's SimTigrate Lab, led by Dr. Craig Zimring, and the School of Industrial Design's graduate design studio, led by Assistant Professor Kevin Shankwiler, are jointly developing the next generation of healthcare facility mock-ups, commonly referred to as "simulators." The long-term goal of the project is to improve healthcare experiences through proficient design of the built environment. The team is exploring opportunities found at the novel intersection of evidence based design, human centered design, and parametric design methodologies to improve the use of hospital room simulators. This collaboration aims to develop new simulator concepts addressing the needs of facility research, development and construction teams.

Structure:

- The SimTigrate Lab provides domain knowledge leadership and installation venue. The industrial design graduate studio is the development team.
- Graduate ID students engage in a three-phase design process during spring semester 2013: perform Inquiry (background research), concept generation (field research, brainstorming, ideation), and concept refinement (prototyping, evaluation, iteration).
- Fabrication capabilities at the College of Architecture's Digital Fabrication Lab will be extensively leveraged to facilitate the project prototyping process.

Outputs/Outcomes:

- Creation of effective state-of-the-art simulation tools leading to rich, multidisciplinary health care experience.
- Report of project, including summary of inquiry phase findings, design opportunity identification, ideation and development process, and discussion of proposed concepts.
- Web-based output summarizing the project and setting up targets for next phases.
- Reception at studio conclusion for sponsors, field experts, researchers, and facility administrators.
- Initiation of Phase II - refine simulator concept(s) and implement into use at the SimTigrate Lab, beginning summer 2013.



Key Questions:

Appropriate fidelity. What level of realism between "feeling like a place" and "believing it is a place" is enough and necessary for a room simulator?

Flexible fidelity. How are different levels of realism represented and modified according to context?

Configurability. What are mechanisms for allowing rapid reconfiguration of simulator setup?

For more information:

SimTigrate Lab: www.simtigrate.gatech.edu

School of Industrial Design: www.id.gatech.edu

Digital Fabrication Lab: www.dbl.gatech.edu/df/home