VIRTUAL OPERATING ROOM TEAM EXPERIENCE (VORTeX): WELCOME TO THE SURGICAL METAVERSE!

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BACKGROUND

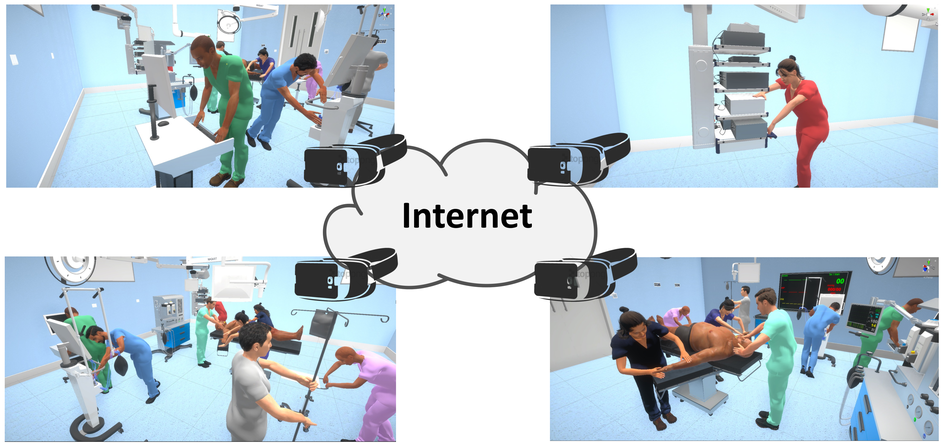
- Modern ORs are dynamic, multidisciplinary environments
- Current team training involves manikin-based simulated cases with instructor-led feedback
  - Requires **significant** personnel, technology, and space investment
- **Other VR offerings:** simulated teammates limit the efficacy of training with colleagues

INNOVATION

- VR-based OR environment for teams to **develop non-technical skills together**
- Train from anywhere: Vastly **reduces** space, instrumentation & personnel costs
- Exposes learners to a **greater variety** of cases with better clinical fidelity than is available with manikin-based training
- Provides learners with clinically-relevant immersive experiences that touch on issues of **diversity, equity, and inclusion** for themselves, their colleagues, and their patients

TECHNOLOGY

- Networked, shared virtual environment
  - Head-mounted displays & 3D audio **immerse learners** in simulation
  - Learners use **natural** speech & gestures, hear alarms, and utilize/share equipment
- Our PULSE engine fully simulates patient physiological responses
- All user interactions & patient responses captured digitally for assessment & feedback
  - Machine learning techniques will enable more robust feedback support
- **Customizable avatars** (e.g., sex, race, ethnicity, height, shape) facilitate learner representation, embodiment, and presence



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