

Inteleos Research Network

The Inteleos Research Network (IRN) welcomes you to the first of our quarterly updates. These updates will provide information on projects underway and plans for the near future.

CURRENT RESEARCH PROJECTS

“My First Scan” VR Tutorial for Inteleos/Vantari VR Modules

The IRN worked with Vantari VR and Inteleos to execute Virtual Reality usability sessions for the “My First Scan” VR experience. Both organizations feel that the first in-headset experience is critical, so dedicated extra time and resources to ensuring that this experience leaves students with an understanding of the virtual environment and the VR controllers while feeling that they have successfully completed their first ultrasound scan in virtual reality.



Inteleos and Vantari VR performing “My First Scan” usability research with a student at the Chippewa Valley Technical College in September 2024)

Usability research sessions were completed at diagnostic medical sonography (DMS) programs at the Chippewa Valley Technical College in Eau Clair, WI; Montgomery College in Takoma Park, MD; and Seattle University in Seattle, WA in September and October 2024. Data and input from these sessions is being used to improve the user experience and fine tune user interactions.

Abdominal Ultrasound Anatomy and Basic Scanning Protocol Modules in VR

Abdominal (AB) Sonography Subject Matter Experts (SMEs) provided valuable input on our Abdominal Ultrasound Anatomy and Basic Scanning Protocol Modules and worked through the AB draft VR modules to collect sample images. This feedback is being incorporated into our VR modules, particularly focusing on user feedback mechanisms and scoring systems.



Abdominal Sonography Subject Matter Experts sharing insights at the Inteleos headquarters in September 2024)



Abdominal VR Module Testing and Ongoing Development

- Conducting usability research for the Aorta VR module, building on “My First Scan” experiences
- Research will include in-headset “talk-aloud” sessions, observation, data collection, and debriefing with DMS students at previously visited programs
- Module design will be finalized by end of November based on user feedback
- Q1 2025: Completion of anatomy and basic scanning protocols for remaining three AB modules
- 2025: Collaboration with SMEs to develop additional content, including anatomical variations and pathologies



OB/GYN VR Module Development

- Call for Participation coming in early 2025
- Focus on anatomy and basic scanning protocols
- Features include transvaginal scanning and fetal movement



VR Program Enhancements and Technical Developments

- Identifying and prioritizing key components for VR program growth
- Developing additional virtual patients
- Working to eliminate gaming laptop requirements for standalone headset experiences
- Planning customized content for diverse audiences:
 - Practicing sonographers
 - POCUS providers
 - Global healthcare providers
- Expanding content areas over time



Research Proposal Invitation

The IRN welcomes innovative research proposals exploring emerging technologies to advance global healthcare education and access, including:

- Contrast-enhanced ultrasound (CEUS)
- NLP/Generative AI integration in simulations
- Novel simulation-based testing approaches



If you'd like to learn more about any of these initiatives or would like to discuss a research proposal, please contact Elizabeth.Santana@Inteleos.org.

Best regards,
Liz Santana
Inteleos Research Network