Watching how the students adapt to virtual anatomy has really been a joy, said Ms. Lorinda Smith, clinical assistant professor and manager of the Treasure Valley Anatomy & Physiology Laboratories.

“It’s interesting to watch them in small groups work together to figure out how to do things. They become excited about it in a way that’s different than they would if they were presented with an atlas of anatomy,” Smith said. “They work together really well to try and figure out how to make something happen or how to explore a particular area. For example, if students just want to see the nervous system, but the stomach and the intestines are in the way, they can push a button and remove it and see what they see. It’s engaging and gets people excited about learning in a different way.”

Smith said students get comfortable with the technology pretty quickly. She has noticed some students prefer to learn virtually first, then go look at cadaveric specimens. Others like to use the virtual tools for review. It’s this combination that she sees as the advantage at ISU—not the virtual lab alone, not the gross anatomy lab alone, but what these labs offer together—having multiple tools to look at anatomy from multiple directions in multiple ways, that’s what most valuable to the students.

**Opening Virtual Bodies Opens the Proverbial Door**

Another advantage? Virtual anatomy is accessible. People who would not typically have access to cadaver dissection could have access to virtual anatomy technology. Also, it may not be appropriate to have an 11-year-old in the cadaver lab, but a young child could come into the virtual lab and explore anatomy.

“I think it gives young people a chance to become interested in the idea of going into a health profession,” Smith said. “It’s fascinating, interesting and cool, so it opens a door that otherwise might be closed.”

To any faculty who might find virtual technology foreign as a teaching tool, Smith said it’s surprisingly user-friendly and would probably be easier to incorporate than one might think. So if you’re reluctant, keep an open mind.

“If you’re anti-technology, or against wanting to add any kind of 3-D virtual anatomy to other types of anatomy study, I suggest you keep an open mind and try it out yourself. There are a lot of things you can do with virtual anatomy that are more difficult to do...
with a cadaver, or more expensive, or more time consuming.”

ISU acquired its virtual tools from grants and donations: The Virtual Anatomy & Physiology Lab was sponsored by the Blue Cross of Idaho Foundation for Health. One Anatomage Table was donated by Delta Dental of Idaho and the other by the Idaho Department of Labor Workforce Development grant. One BodyViz station was purchased by the Jeff Tunison Community Fund supported by Capital Matrix and another also through the Idaho Department of Labor Workforce Development grant.

From the Lab, Around the Globe, Back to the Patient-Centered Home

Dodson has a vision of how virtual anatomy can be taken from universities and integrated into best practices. Because virtual technology allows students to view a real patient being treated for a real pathology, students can scroll through the steps over time and see if the pathology has been improving or not. Virtual anatomy now becomes an assessment tool.

“If you have students working interprofessionally as a team, it actually drives the whole concept of a patient-centered home,” Dodson said. “It really is an opportunity to bring together not only other disciplines, but actually look at real patient data as it exists and determine whether you’re making progress or not.”

Virtual anatomy technology also has the capability of sharing content, extending this access globally. A medical team in Idaho could connect with a medical team in Central America, and in real time, discuss similar pathophysiologies in different geographies to collaborate on successful treatment protocols.

“You can deliver this data anywhere in the world where you’ve got Wi-Fi,” Dodson said.

Virtual anatomy technology makes it possible for student pharmacists, medical students, residents, faculty and practicing surgeons to review systems before a lecture, before an exam, or before a surgery, providing opportunities to incorporate best practices and work together as a team. The way Dodson sees it, the technology is unlimited. “The only thing that would limit this is our imagination.”

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