

Cross-disciplinary Learning Enabled Through Cloud-Based Solution



At the University of Bradford, the Sectra Education Portal was recently incorporated into the curriculum. The portal, which provides students with an enhanced understanding of anatomical structures, caters to a diverse range of disciplines at the university—from Biomedical Sciences and Archaeological Science to Clinical Sciences, Pharmacy and Radiography. We met Dr Bielby-Clarke, who shed some light on the operational aspects of the solution, its role in improving education, and its potential influence on future practices.

The University of Bradford is a public research university located in the city of Bradford, West Yorkshire, in England. It is home to some 7,500 undergraduate and 2,300 postgraduate students. The university implemented the Sectra Education Portal in autumn 2022 and started using it in classes around Christmas.

Dr Keren Bielby-Clarke is an Associate Professor at the Faculty of Life Sciences at the University of Bradford, where she teaches anatomy and physiology. "I teach anatomy to a varied range of students. So, it goes all the way from students who just need basic anatomy knowledge to those students who need a far more detailed understanding."

Since its implementation, she has incorporated Sectra's cloud-based platform into her anatomy and pathology teaching sessions, alongside colleague Dr Sobia Kauser, who uses the portal to support histology teaching. "Sometimes the students will use it prior to an ultrasound demonstration to get a feel for the anatomy before they take part in the class. Then they are prepared when they meet their patient, and they know where the specific muscles are, or where the kidney or liver is. That's really useful preparation."

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Dr Keren Bielby-Clarke, Associate Professor, Faculty of Life Sciences and University of Bradford.

Before adopting the Sectra Education Portal, the university used a variety of solutions, some of which are still used today as a complement. "One of the reasons for using the Sectra Education Portal is the straightforward off-campus accessibility for a number of students concurrently, which, while not necessarily unique, is a strong positive factor. Another reason is the wide range of cases in the library, the detail in the models and anatomical data, and the ability to easily upload new data," explains Dr Bielby-Clarke. She adds that some of the other solutions offer more basic functions, hence the need for Sectra's solution, with its dissection functionality and more. "During the first week we'd be looking at the thoracic cage. We start with the outside, looking at the different muscle layers, then the ribs, the vertebra, and the intercostal muscles through to the pleura and the lungs. That's where the solution from Sectra is particularly useful because you can do the dissection going through the different muscle layers and all the way to the thoracic cage, which is brilliant to put it all into perspective."

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The ability to explore and examine real-life cases and its on-demand accessibility are valued by both students and educators. "It's very easy to access because it's available online through your computer, which the students particularly appreciate for self-directed learning—meaning that they can access the material in their own time and at their convenience. It also provides a huge range of different anatomical and pathological cases that you can then retrieve and explore to help your students understand the different structures and systems that you're looking at. You can explore slides, cases, and perspectives that you would never otherwise have access to."

Dr Bielby-Clarke also appreciates the Sectra Education Portal's intuitiveness and the opportunities it presents for educators, including the capacity to construct narratives for students and the convenience of using direct links in teaching. She also highlights how it will benefit the students after graduation, explaining that given that the future of pathology will likely involve digital data reading, the portal offers students early exposure to this practice. This in turn will reduce the time it takes them to adapt in a professional environment.

Moving forward, Dr Bielby-Clarke hopes to expand the amount of content that they upload as she has colleagues across the faculty and wider university who wish to incorporate the Education Portal into their teaching in the coming years. She continues:

"My plan for next year will be to expand the number of students and programs using the portal and to introduce the students to it in a very structured session much earlier in the academic year. This will ensure that all students are proficient and comfortable with the system's catalogue and interface before they are expected to use it in classes or off-campus for their own study. I also intend to build the use of the portal more widely and consistently into practical classes, supporting other in-class practical activities such as the use of ultrasound with patients."

Source: Sectra

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