

case study

The campus of the future: A unique and immersive learning environment

The Royal College of Surgeons Ireland (RCSI) was seeking an innovative way of delivering learning content that drives improved engagement across its large student base.

With its existing collaboration platform no longer generating the right engagement from remote participants, RCSI wanted to migrate to a new, fit-for-purpose solution. The goal was to secure a platform that allows RCSI to connect with each participant on a one-to-one basis, regardless of the number of remote students, for maximised engagement and attention. RCSI met with X2O Media, a leader in communication tools who specialise in real-time immersive learning and training environments. Its hybrid and remote classroom technology features high-definition, bi-directional audio-visual communication, interactive whiteboards and presentation monitors with content sharing and integrated collaboration tools.

X2O Media provided RCSI with a live demonstration of its cloud-based X2O OneRoom solution, showcasing the benefits of being able to see multiple participants at once combined with an intuitive user interface. The project progressed quickly and Kinly was engaged as a trusted technology advisor to design and install the AV equipment.



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Working together. Everywhere

The solution

The solution is based on an innovation foundation provided by X20 Media's OneRoom platform. X20 OneRoom is a blended learning platform that provides an immersive and engaging one-to-one learning experience for both in-class and remote students, supporting both synchronous and asynchronous learning. This cloud-based system makes it as easy as possible for remote participants to join sessions and seamlessly engage. All they require is a Chrome or Safari browser, there is no need for the participant to have software installed.

The interactive solution promotes real-time immersive engagement across the globe and comes complete with a suite of advanced collaboration tools. In addition, broadcast quality, high-definition audio-visual streams and interactive smart collaboration tools allow remote students to interact and contribute in real-time.

To complement the powerful learning platform, Kinly designed and installed a comprehensive suite of audio-visual technology that lends itself to an enhanced student and lecturer experience. The design makes use of an Ilyama 75-inch interactive display, installed at the front of the classroom on a flat screen and connected via HDMI.

Twelve Panasonic 55-inch displays are mounted in a 6x2 formation on the wall opposite the Ilyama display to accommodate a larger number of participants, each on a freestanding floor mount video wall stand. An X20 Media NUC is also installed on the wall between the two screens in each of the six columns. NUCs are also connected to two relevant screens using HDMI cables. In addition, a Panasonic 49-inch display is mounted on a wheeled floor stand to act as the confidence monitor for the lecturer with an X20 NUC installed behind the screen.

To secure an optimal audio experience, a Shure ceiling microphone array is integrated in the room on a projector ceiling bracket. This is deployed to pick up any near-end audio in the room and place it directly into the lecture. An Extron Soundbar is installed below each of the Panasonic screens for connection to a Biamp Tesira server. The soundbars facilitate playback for any audio that corresponds to the screen above. The server is installed in the relevant equipment rack and provides the DSP requirements for the lecture room. Shure lapel microphone systems are also provided for lecturers and connected to the server.



A Marshall miniature POV camera and lens is installed above each of the Panasonic 55-inch displays. These cameras are connected to their respective X20 Media NUCs to provide a high quality video feed of the lecturer and room to online participants. A further two Vaddio video cameras are installed on wall brackets to deliver an alternative video feed of the lecture to students. The NUC supporting the two cameras is installed behind the Ilyama interactive screen and connected to the cameras via active extension cables.

Lastly, a Magewell USB capture device is installed at the Ilyama screen to enable screen sharing from the room along with a Logitech Spotlight Presenter for lecturer usage. In addition, RCSI's existing equipment racks were repurposed by Kinly to house all the new equipment, contributing to a more sustainable installation.

The outcome

Through X2O OneRoom and expert audio-visual integration performed by Kinly, RCSI is experiencing greater engagement and participation from its remote student base than ever before. Lecturers have fully bought into the solution and have noted that they really enjoy using the new technology now at their disposal.

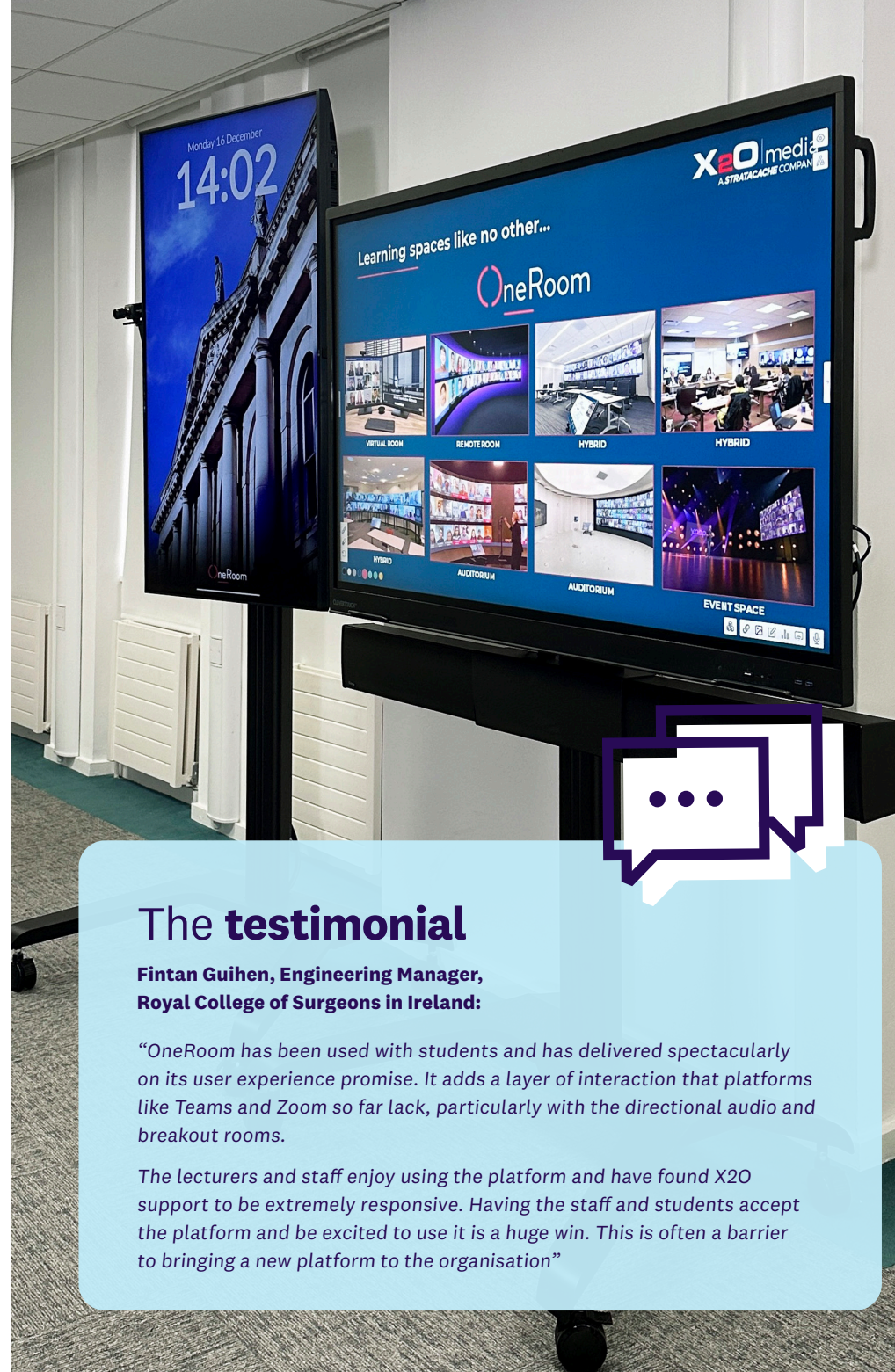
Four-weeks after going live, X2O Media delivered a best-practice workshop to the team at RCSI with the aim of further optimising the teaching and learning experience for lecturers and students alike. During this session where the teams at RCSI learnt how to make effective usage of the technology with useful tips on where to stand and how to use microphone effects. This was followed by an additional two workshops, giving RCSI the opportunity to provide feedback on what they love about the system and what they'd like to see change, creating a culture of continuous improvement.

The relationship between Kinly, X2O Media and RCSI continues to go from strength to strength and the three companies are in a fantastic position to secure sustained success moving forwards. Following the initial installation, RCSI engaged Kinly with the task of migrating the audio-visual hardware into a new room, as well as building a second hybrid space to further extend its capabilities.

- ✓ Brings in-room and remote learners together for an equal, shared experience that drives exceptional learning outcomes
- ✓ Multiple cameras views enable students to navigate around the room for a broadcast-like experience
- ✓ Perspective cameras so that each student has their own personal view of the room for enhanced participation
- ✓ The spatial audio helps the lecturer to quickly identify and locate who is speaking to engage with them easily

Why Kinly?

Bringing people & technology together for better productivity wherever the work happens — because great things happen when people work together.



The testimonial

**Fintan Guihen, Engineering Manager,
Royal College of Surgeons in Ireland:**

"OneRoom has been used with students and has delivered spectacularly on its user experience promise. It adds a layer of interaction that platforms like Teams and Zoom so far lack, particularly with the directional audio and breakout rooms.

The lecturers and staff enjoy using the platform and have found X2O support to be extremely responsive. Having the staff and students accept the platform and be excited to use it is a huge win. This is often a barrier to bringing a new platform to the organisation"