



Using immersive technology to prepare students for the world of work

The University of Sunderland uses an Igloo immersive cylinder to offer students new ways of learning



Highlights

The University of Sunderland offers transformational experiences to talented students from all backgrounds. And key to its offering is developing highly-skilled, ready-for-work graduates, through career-focused teaching and learning.

As part of a major revamp, funded by the European Regional Development Fund, it invested in a 6-metre Igloo cylinder to form part of its Digital Incubator space.

The cylinder is equipped with 360° immersive projection, surround sound, and is powered by an Igloo Immersive Media Player loaded with Igloo Enterprise software. It provides students with the:

- Skills to go straight out to employment
- Experience of using technology used in industry
- Opportunity to practise collaborative work
- Chance to get to grips with new and exciting technology

The University of Sunderland has been impressed by:

<p>The experience The space provides students with industry-level technology, which in turn prepares them for the world of work.</p>	<p>The outcome Students have enjoyed learning and presenting in a unique and engaging way. It's brought them back together after months of remote learning.</p>	<p>The usability Staff and students noted how easy they found using the Igloo. Students loved coming up with new ways of using the space.</p>	<p>The reaction The Igloo has been well-received internally and externally at the university. It has fast become an impressive and valuable part of the Faculty of Technology.</p>
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About the University of Sunderland

The University of Sunderland, based in the Northeast of the UK, offers life-changing opportunities to thousands of students in its partner colleges and across four main sites around the world.

It has been rooted in the city of Sunderland since the establishment of Sunderland Technical College in 1901, before gaining university status in 1992. It has over 24,000 students based in campuses on the Northeast

coast, in London and Hong Kong and at its global partnerships with learning institutions in 15 countries.

The University of Sunderland has links with business and industry, as well as a close working relationship with many leading blue-chip companies. It is focused on ensuring its graduates leave equipped with the knowledge, skills, confidence, and connections to make a positive difference in the wider world.

It is proud of its long-established commitment to widening participation, its world-leading research and its public and private sector collaborations. Its quality student experiences result in graduates who are the tomorrow-makers of our societies and economies.

The situation

The University needed a space for students to gain valuable real-world experience.

The University had been investing heavily in its Faculty of Technology, as well as in its Digital Incubator space. The Digital Incubator is funded by the European Regional Development Fund (ERDF) and has already worked with over 100 students, over half of whom have gone on to set up their own businesses.

With funding from the ERDF under its belt, the University was looking for new and innovative equipment to provide students with enhanced immersive experiences within its courses.

The University began investigating immersive technology for these facilities and in its search came across Igloo. And, while it explored other options, such as flat screens on walls to create an immersive display, or VR headsets, Igloo was chosen as a tried-and-tested technology that is used by industry and enterprise all over the world.

“*People are amazed by the technology and how it can make you feel.*”

Paul Graham,
Senior Lecturer at the
University of Sunderland



The solution

It was decided that an Igloo immersive cylinder would be installed to create the needed space.

The install

Working closely with the team at the University, Igloo specified and installed a 6-metre immersive cylinder powered by the Igloo Enterprise software. So, students have a wealth of capabilities at their fingertips, from working with simple 360° videos or photos, to working with game engines such as Unity via Igloo Realtime, and the whole of the internet available in an immersive space via Igloo Web.

As with all Igloo spaces, it is driven by the Immersive Media Player, enabling the University to house a whole host of content in its Igloo. This particular installation uses the IMP I, which is great for immersive storytelling and room-scale presentations.

The look and feel

The Igloo forms an integral part of the Digital Incubator, a high-tech computing environment with strong links to software companies and a constant exchange of ideas and people.

It was important to the University that the Igloo became a centrepiece for the Faculty of Technology, so an existing staircase was removed to make way for the Igloo to sit directly opposite the entrance. And, with bold branding, the Igloo makes for an incredibly eye-catching installation that no one misses when they set foot in the building.

The use case

Once the Igloo was installed in early 2022, eight groups of eight students each set out on projects that would make use of the Igloo and its many capabilities - the first use of the system at Sunderland.

Half of the groups worked on an interactive museum experience and the other half on an interactive learning experience. These projects enabled the students to develop and test interactive content and its impact.

As part of the projects, Team Igloo linked up with the students throughout the module, which culminated in a final showcase at the end of the term. In this way, the students began to make links with industry and to get a feel for how development is in the real world.

“*It's the talking point of the faculty and allows students to think about how they want to engage with each other and lead their education.*”

Professor John Murray,
Academic Dean of the
Faculty of Technology



Why was the University of Sunderland attracted to immersive technology?

Giving students real-world experience

It's of utmost importance for the University to provide students with the tools used in industry, to send confident graduates out into the world of work. It wants to build skills for the students so that they can leave understanding the latest technology developments, and already be familiar with how to work with them.

Using industry-standard technology is exciting for students as it gives them a taste of what could be to come. Igloo technology is widely used by the world's most innovative companies, such as Accenture, Microsoft, and many more, making it an attractive choice for the University of Sunderland.

Encouraging collaboration

The University needed students to work in groups as part of the projects. With Igloo's shared immersive spaces, whole groups could experience the VR content together and discuss it with each other in real-time. So, the students could:

- Be surrounded by their work
- Reunite after time remote working
- Discuss important aspects of projects
- Make changes in real-time
- Facilitate group discussions

- Improve self-confidence in group situations
- Make eye contact and read body language
- See what everyone else is looking at
- Arrive at a consensus opinion

Future applications

Whilst the student-led projects were an excellent introduction to using the Igloo, the University has lots of plans for future uses.

Many of the University's other departments and staff are keen to use the Igloo for their own courses.

The University looks forward to making the immersive facility available to other organisations too – for example, inviting local schools in, or hiring the space out to businesses for training and meetings.

A leading lecturer at the University is also undertaking a PhD in the use of the Igloo, titled: 'What effects the use of immersive technology of an Igloo has on teaching and learning across multiple faculties through applying theoretical concepts in real world scenarios'.

The PhD will explore the novelty of using an Igloo and how it has enhanced the teaching and learning experience of students across multiple faculties.

Bringing student work to life

An Igloo immersive space opens a world of opportunity for seeing work in a different light. As opposed to being crowded around a small computer or laptop screen, students can blow their work up to life-size, and step into their projects as if they are really there.

Whilst 'inside' their projects, students can discuss what is being shown, spot any design flaws they may not have noticed on a smaller scale and adapt the project easily to reflect any changes discussed.

Inspiring a future generation

The Igloo provides a unique and memorable learning experience, that inspires students to explore career paths and options they may never have considered before. Students can get a taste of a field they're interested in, before committing to a particular path.

Whilst working with Team Igloo on student projects, the team noted that the students had used the Igloo in creative ways they hadn't seen before, one of which was using AI-powered voice acting software to provide narration on one of the museum projects.



The students also had plenty of other ideas for using the software in new and innovative ways. One group had investigated integrating their project with a webpage quiz to make for an interactive voting session. And another toyed with the idea of using Kinect cameras alongside a quiz. The room could be split up into segments, and students could stand in a segment to vote on an answer. The cameras would then count the number of students in each segment.

“*In terms of the projects that happen here at the University of Sunderland, as far as I can see, there's true value in that for business for organisations, because not only does it give them a little bit of real-world experience of working in industry. They'll realise the similarity between what they've done here and in the real world.*”

Paul Guy, Director of ICT at Durham Constabulary

The student projects

The first activity undertaken by students in the Igloo was a series of student-led projects. The students were split up into eight groups of eight students each to work on the projects.



The activity – putting the Igloo tools to use

One half of the groups worked on an interactive museum experience using Unity and Igloo's plug-in for the game engine, which allowed the experience to be shown in the Igloo. And the other half worked on an interactive learning experience targeted at Key Stage 2, which could be built with Unity or as a web-based app to be shown using Igloo Web.

Throughout the projects, the students had interactions with Team Igloo to help guide their work, giving them an understanding of working with external clients. They met once to pitch ideas, once to show a working prototype and the final time to present a final prototype. At every stage, it was competitive as the students were graded on presentation skills by both the University and Igloo.

The showcase – presenting the hard work

The Digital Showcase is a yearly-held event at the University of Sunderland, where second and final year students have the opportunity to showcase their work to local employers, University staff and fellow students. It's a way for students to practise presenting, chatting to employers and making connections that could result in future work placements.

2022 was the first year the Showcase took place within the Igloo, which unveiled a host of new opportunities for both the students and attendees. Having a blank canvas to present their work to scale meant the students could display their projects in an engaging way, show them off in closer detail and have more people view their work at the same time.

At the Showcase, two projects were chosen as winners and presented with awards and prizes. The winning projects included an engaging tour of the Lake District and an interactive tour of a Greek Mythology Museum. The depth and breadth of the projects created only further reinforces the creativity students can have when provided with an Igloo immersive space.

Evaluating the impact

The Igloo has proven to be an integral part of the curriculum at the University of Sunderland, and is well-loved by staff, students and external partners.

Students have a space to gain vital real-world experience which prepares them for the world of work.

Impressions of the Igloo:

"Everything we teach our students, the equipment we use, the facilities, has to be leading and cutting-edge and give the students the skills to go straight out to employment and use the technology employers are using. The fact that it's used by education, used by industry, meant it was the right thing for us."

"Everyone was blown away by it and other faculties are thinking about how they can use it with their students, how they can engage our students and theirs together. So, it's forming collaborations across the university even before much content has been sourced - it's bringing the university closer together."

"Everyone we've demonstrated the capabilities to is excited about the possibilities."

"Students really are getting excited about using the equipment, it's something they've not seen before, and they are already thinking about how they are going to be using it."

Success of the Igloo:

"It really does show not only our students, but the rest of the university and industry partners coming in, the potential of the Igloo."

"It's a priceless experience for students here at Sunderland. We really want to produce graduates that can hit the ground running and contribute to business from the minute they leave us. So, experiences like this help them frame how they're going to act as a professional in a professional environment."

"The students are getting a lot of value out of it. I think it's quite an ingenious piece of technology."

The student projects:

"When we saw our project in real life in the Igloo, the result was unexpected. We were not expecting it to look so good, and we're really proud of what we made."

"The quality has been amazing. We're really impressed with how the students have performed, the level of innovation shown, the attention to detail and how well they've got on using the Igloo."

"We tested our project beforehand in the Igloo, so running it has been a breeze for us. It's been very easy for us to be able to work with it."

"With being in the Igloo immersive environment, they've really done us proud with some of the things they produced. It's been really cool to work with them on the projects."

Keys to success: The Igloo perspective

At Igloo we have worked on many deployments of shared immersive spaces. And we are always keen to advise customers (and also to learn from customers) about the factors that enable an Igloo to become an effective tool.



From our perspective, the University of Sunderland installation has five main keys to success:

1

Investing in its students' futures

The University of Sunderland is committed to investing in the future of its students by investing in the latest industry-level technology for them to use. It is keen to remain at the forefront of innovation by providing students with the tools needed to shape them for the world of work. **By investing in immersive technology, the University shows it is dedicated to improving the learning process for its students.**

2

Getting students directly involved

The University was quick to involve students with using the Igloo, giving them hands-on experience with state-of-the-art technology. It's not just being used to present to and teach the students, but rather allowing the students to get to grips with using the Igloo themselves. **Letting students use the Igloo makes them excited about the technology.**

3

A prominent location

Making the Igloo a prominent feature within the building has furthered the success of the install. Removing a staircase to have the Igloo take centre stage by the entrance has only increased the interest from other departments, staff, students and externals. **Ensuring the Igloo is well-seen makes sure it remains well-loved and well-used.**

4

A strong commitment to partnership and collaboration

Having a strong relationship with Team Igloo, powerful links to industry partners and external companies better students' chances of gaining real-world experience and increases their chances to meet individuals who may be able to provide them with work experience or placements. **A close partnership has been invaluable and continues to be after the installation.**

5

Senior level advocates

The Igloo has secured support from senior staff at the University from the get-go. Having outspoken advocates for the space inspires the students and solidifies its position at the University. Staff members are even completing PhD doctorates on the Igloo, further demonstrating how it is being used to enhance the teaching and learning experience of students. **This has been key to helping internal university staff and external partners understand the potential of the Igloo.**



For more information

Igloo Vision is the immersive workspace company.

From bases in the UK, USA, Canada and Australia, we work with clients worldwide. Our largest, fastest-growing market is education. So far, 50+ educational institutions have installed Igloo Shared VR systems, and many more installations are in the pipeline.

- Michigan State University
- University of Adelaide
- University of Tromsø
- University of Brighton
- Mid-Sweden University
- Sunderland College
- Tampere University of Applied Sciences
- Cardiff University
- Deakin University
- Arkansas State University
- Zhejiang University
- Florida International University
- Khalifa University
- California State University, Long Beach
- Ryerson University
- University of Loughborough
- University of Essex
- University of Adelaide

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