



## DECADE: 21st Century learning spaces

### Space to succeed

The challenge of twenty-first century learning is in creating spaces to succeed, based on equity of access that's personalised to learner needs. This is about the design of relationships, methods of interaction and the whole learning experience. It changes our concept of 'school'.

Twenty-first century learning is about learners co-creating their own learning journey. This involves trust, blended learning experiences, social learning and adapting to need. It's also about ensuring relevance and a richness of experience. It means using different spaces in different places and re-using the same space for different purposes to create distinctive, relevant, purposeful and responsive experiences.

The Commission for Developing Scotland's Young Workforce has asked how all learners, young and old, can be the best they can be. The school experience is vital for many, an opportunity to build social and collaborative skills, as well as technical knowledge. So, how we design spaces within schools and in places really matters.

At the DECADE event, participants identified four priorities for the design of twenty-first century learning environments:

- A focus on creating places where people want to be – a prerequisite for participation.
- Equity of access, so no matter who you are or where you're from, you can access learning in a supportive environment.

- Schools as spaces to connect learning, services and enterprise opportunities. Learning should be without boundaries and supported within the community.
- Evaluation and adaptability. Why do we build for 20 years? How do we know what we build today will work in 20 years? Shouldn't we build to adapt, test settings and evaluate what works as we go, changing things as required?

Our learners learn in a time and place beyond the building. And people should have a sense of ownership of buildings and learning decisions. That's the key if every learner is to find his or her space to succeed.

Diarmaid Lawlor, Head of Urbanism and Schools, A&DS

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# Nurturing this space

by Angela Edwards, Inverclyde Council

Nurturing the Inverclyde space shouldn't be difficult ... outstanding views, a rich heritage, strong sense of identity and beautiful places and people. But none of this is usually portrayed.

Inverclyde's coat of arms bears the motto 'we look forward to better things'. In times of austerity, we must focus on doing the right things to secure a better future. In Inverclyde we boast one of the highest investments and best school estates nationally. **But do these amazing new spaces allow our young people to 'look forward to better things'? How do we future-proof our investments?**

The council aims to create a Nurturing Inverclyde and has adapted the GIRFEC wellbeing aims for our communities, which provide a clear shared vision and set of outcomes to work towards. We hope that any child, born or coming to live in Inverclyde, achieves these outcomes no matter what his/her circumstances, or where he/she lives. **But do we use our places and spaces to help us fulfil this vision?**

Inverclyde has a solid platform for future success. With funding from Creative Scotland's Place Partnership, 'place' can be put at the heart of our communities. As a small authority, Inverclyde can develop relationships and networks through and across places.

A key issue is our rate of de-population – a large percentage of our young people don't want to stay here. A young man, Andrew, recently informed me that this was because he had nothing to lose. **How can we use our spaces differently to ensure our young people leave school feeling as though 'they have**

## something worth losing'?

We need to drive forward high cultural expectations for all, follow a curriculum that creates opportunities for all and develop a workforce to full capacity. But education can't do this alone. Meaningful connections must be made with entrepreneurs, businesses, public services, colleges and partners in a wide range of places. **We create outstanding spaces through our new builds, but do we use them to connect and impact on culture, curriculum and workforce capacity?**

Here, the gap isn't just about attainment. It's attendance, exclusions, participation, employment, environment, housing, culture etc. In Inverclyde we talk more holistically about 'minding the gap'. We must be mindful of and address gaps, and their impact on outcomes. **How can our spaces and places help us to do this?**

In terms of collaborative spaces, we tend to create 'wow' factors and light, open areas. Children tell me they want more intimate, cosy areas with less expanse and exposure. **Do we involve our children enough in pre-design collaboration? I wonder what 'Andrew' would say?**

In deliberating how to consider 'space' issues, we identified 'branding' as important. The uniqueness of Inverclyde relationships has been summed up as 'The Inverclyde Way'. This and being 'connected' formed the resulting brand. **How can we use our spaces and places to bring that brand to life?**

Recently, we had IT difficulties in building an interactive, engaging Children's Services Plan. 'Being Connected ... the Inverclyde Way' worked by involving our MCMC team and then commissioning young people at West College of Scotland to deliver this for us on our website and as an APP. The problem was worked through across people and places.

Inverclyde has amazing buildings and spaces. **But, as a place, are we truly connected?** Connected in a way that ensures living in Inverclyde is no barrier to success?

The right spaces, used in the right way can help us make sure we are.

### About the author:

ANGELA EDWARDS is Head of Inclusive Education, Culture and Corporate Policy for Inverclyde Council. She has been there for five years, having previously worked for Her Majesty's Inspectorate. Prior to this she was Head Teacher in two schools for children with additional support needs.

# Within, across, and beyond: 'third spaces' in tertiary education

by Keith Smyth

How might we conceptualise the nature of educational spaces – physical, digital and intangible – within the context of further and higher education? Furthermore, how might we think about learner engagement within educational spaces, and the relationship between formal educational spaces and the communities within which they sit?

There are two propositions to consider here. The first concerns the intangible space that is the curriculum. We know and experience the curriculum through the artefacts, activities, resources and people that it is instantiated within and communicated through. However, our notions of 'curriculum' are often bounded by assumptions of space and place in programmes of study, and within the 'hard' and virtual walls of the institution.

The second proposition concerns the open education movement within the higher education sector, which originally offered to harness open online approaches to widen access to higher education on an unprecedented scale. However, this has mostly amplified access for those who already have a higher education, rather than facilitate those who are aspiring to engage. I suggest refocusing the open education debate on physical spaces and locations – and not framing it so strongly in open online education.

Important to this refocus, is the concept of 'third space'. Drawing upon Ray Oldenburg's (1989) seminal work, the key characteristics that define 'third space' include their location as spaces within our community that are 'not home' and 'not work'; spaces where social diversity is embraced; spaces where those who may not

otherwise meet come together; and where knowledge and experience is shared for a collective good.

When we think about the concept in relation to formal tertiary education, we may extend the idea of 'third space' to spaces for learning and collaboration that exist between and across courses and course cohorts, formal and informal learning communities, and across the university, local communities and wider society.

'Third space' is central to the rapidly developing alternative higher education movement in the UK, and in the work and ethos of initiatives and collectives including the Social Science Centre in Lincoln, the Free University Brighton and the Ragged University. Each of these creates and facilitates free higher education and adult learning opportunities within the community, in collaborative and collegiate spaces that sit outwith formal institutions. There are also similar initiatives within the digital domain, including the work of the charity Lead (Linking Education and Disability) Scotland, and its Thinking Digitally course.

What we see in these examples is an 'unbounding' of the curriculum and tertiary learning opportunities from the physical and virtual walls of formal institutions, and a 'co-location' of the curriculum within our wider communities.

There are also examples that illuminate what's possible when we reconceptualise formal higher education spaces and what we expect to happen within and beyond them. The University of Lincoln's Student as Producer initiative and University of Exeter's Students as Change Agents scheme have reconceptualised

the curriculum, teaching and assessment practice to position students as active researchers and influencers of change, and producers or co-producers of ideas, resources and interventions that often have a broader social purpose.

Harnessing the 'third space' in tertiary education can facilitate connections between different groups of learners, and enable students, colleges and universities to better connect with the communities they belong to – benefiting not just our learners, professions and industries, but also wider society itself.

### About the author:

KEITH SMYTH is Professor of Pedagogy at the University of the Highlands and Islands, and works on strategic learning and teaching developments. He is currently working with colleagues exploring the idea of the 'Digital University', and the concepts of 'third spaces' and alternative practice in Higher Education.

# Tapping into the potential of the pupil's phone

by Ian Stuart, Glow Product Owner, Scottish Government

Today, almost everyone is walking about with what would have been considered in the 1980s as a 'supercomputer' in his or her pocket – something that could have been used for space flight. A supercomputer with a host of sensors ... it is, of course, the smartphone. And, according to Ofcom, it's taking over as the device for accessing the internet:

*'... in 2015 33% chose their smartphone, and 30% chose their laptop [to connect to the internet], compared with 23% and 40% respectively in 2014. Furthermore, smartphones are now the most widely owned internet-enabled device (66%), on par with laptops (65% of households).'*

As a society, we now have easy access to information, and the amount of information available will only continue to grow – something both awe inspiring and terrifying. So how has education dealt with this? Unfortunately, by closing it down. Instead of developing ways to use fast information access positively, we find ways to switch it off and to apply what was done before with a little bolt-on of ICT.

In Scotland, every teacher and pupil has access to unlimited storage, from a variety of devices wherever they happen to be. They can also select files that can be available to them even without an internet signal. A group can work live on the same document at the same time and can access a virtual learning space to talk about it. We can go on virtual field trips all over the world – all via a single login. This is not to replace what has been done already but to widen the experiences that are available.

However, we are still building Faraday cages to stop signals and tell staff and pupils not to switch on their supercomputers. We create special rooms for technology to happen in. We replicate boards at the front of a class because 'that's what teachers do'.

Supported by technology, we have the opportunity to help learners engage with – and take responsibility for – their own learning, using new and creative ways. We can now develop learning as a community and as part of the global society. We should be embedding an excitement about learning in all learners and making 'anywhere, any time learning' a reality in more places.

## About the author:

IAN STUART is currently seconded to the Scottish Government in Edinburgh to update the Glow platform. He was an acting Deputy Head Teacher in a high school in Islay, and is a Fellow of the Microsoft Innovative Education programme, a global programme of educators supporting education.

# Creating quality spaces to nurture learning

by Maggie Barlow, Space Strategies

It is recognised that there are many modes of learning, so there is a greater emphasis on choice and variety in both the curriculum and the learning environment – learning must be relevant and engaging. There's also a focus on the application of knowledge, rather than the passive acceptance of that knowledge. And this is all intrinsic to the recent increase in appetite to use a new school building to catalyse change.

When considering school design, new space typologies have emerged. Schools must be about more than traditional classes. Small spaces should support breakout groups, extended classrooms, independent study and so on. And larger cohort spaces are required to support team teaching, paired teaching, cross-curricular and interdisciplinary working.

To achieve all of this we need to pay more attention to the design, specification and planning of the interior spaces, and the built-in fitments, the furniture, the graphics, the colour and the technology within those spaces. This is what will deliver flexibility and enable students and staff. Through well-considered design and specification, we can help express new cultures and approaches, and create 'de-institutionalised' spaces to inspire and welcome harder-to-reach students and their parents.

But how can we achieve this when the pressure on resources is increasing?

For most people, the number one requirement in a new building is more space. But when we look closer at this, it's not the quantity of space that's the problem; it's the quality. We can, however, gain space by sharing space.

Well-designed spaces, with the right fittings, furnishings and kit, can be used by many users across the days, weeks and years. This utilisation approach allows us to reduce the quantity of real estate, while investing in quality, both in terms of initial capital costs and year-on-year costs.

Pedagogy choice must come first and this is where the real change is. Educators have been clear – classrooms still have a part to play, but adequate spaces are also needed to accommodate other group learning activities.

Clients must consider what they want to do, how to support that and how to remain true to the vision throughout the design, procurement and change management process – clear leadership is key. The project team must also look towards more integrated approaches. Architects are not pedagogy experts; they need to listen. And enablers must be in place, coordinated as intrinsic components of the design process and built into the cost planning from the outset.

Recurring themes at the DECADE event included nurture, support, inclusion of the harder-to-reach and engaging learners. Are there less tangible measures of success which can be defined around the performance of our school environments?

Loosening up and fluidity were common themes whenever space was mentioned. How do we encourage more of this kind of thinking to ensure the end of the rigid, institutionalised approach?

IT, mobility and harnessing learners' pre-existing natural skills were mentioned frequently, as were the

frustrations around enabling these. Can we draw out what this really means for the future as well as the boundaries between schools and other spaces within the community?

## About the author:

MAGGIE BARLOW has been an architect for 30 years, with a focus on the efficient, effective and sustainable use of space in buildings. Space Strategies has been supporting authorities who have been looking to use the opportunity of the investment in their school estate to catalyse new ways of learning.

# Bridge21 model and learning spaces

by Ciarán Bauer, Bridge21 Coordinator, Trinity College Dublin

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Although society has long since moved from an industrial age to an information age, little has changed for students in many modern-day classrooms. A classroom design of desks in rows, established in Victorian times, reflects a pedagogical approach which has remained constant since its origins in a 19th-century industrial society.

Today's information-age society requires an information-age pedagogy that focuses on active, collaborative, and creative qualities<sup>1</sup>, where students can develop competencies for lifelong learning. A learning of factual knowledge and being able to apply, analyse and create new knowledge go hand in hand. The best educators understand that higher-order thinking and problem-solving must be emphasised in order for students to learn how to learn for themselves.

Bridge21 is an education programme based in Trinity College Dublin. Since 2007, over 10,000 students and teachers have taken part in Bridge21 activities, both in TCD and in their own schools. The Bridge21 learning model is grounded in a social constructionist philosophy. The key components of the model are a highly structured team-based pedagogy, project-based learning, sharing of ICT resources, the use of mentors to support learning, team and individual reflection and the adoption of a strategic approach to scaffolding a team's work<sup>2</sup>. This model of 21st-century (21C) learning is designed to empower students through teamwork, technology and project-based learning. The physical space is configured to support this approach.

The design and layout of the learning space supports the collaborative nature of the learning activity and

allows students to comfortably work together, share resources and interact easily with their peers. It also considers the use of classroom space when teachers take on the role of facilitator (rather than directly instructing the learning) allowing for free movement between groups to monitor progress. Research has also shown that configuring a learning space to provide for group learning through breakout areas and alcoves essential to facilitating social learning and stimulation.

In 2014 a second learning space was opened to further research and develop the Bridge21 learning model in practice. This space mirrors a standard one-room classroom and concentrates on maximising resources and utilising flexible furniture to incorporate 21C design patterns in a typical school classroom of today.

Bridge21 continues to explore the synthesis of learning research with best practice in school planning and design. Our mission statement advocates an education transformation where classrooms of tomorrow move away from an industrial society pedagogy and adopt the skills which support critical thinking, problem-solving and collaboration to achieve student self-directed learning in a 21C learning world.

The Bridge21 learning spaces are designed to support learning and offer a stimulating environment for students and teachers to participate in active and lifelong learning for all.

1. Voogt and Pelgrum, 2005
2. Lawlor, et al., 2010

## **About the author:**

CIARÁN BAUER spent twenty five years in the IT industry before joining Bridge21, a research programme based in Trinity College Dublin(TCD), as Programme Manager. Bridge21 offers a new model of learning designed to support an innovative 21st century learning environment within school classrooms.

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– Diarmaid Lawlor, A&DS