

Concurrent Session H
Tuesday 13 September
2:45pm – 3:35pm



Session 7
The Future of Learning
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Arup

Anne is an Associate in Arup's global Foresight + Research + Innovation team. She leads Foresight + Innovation for the Australasia region. Anne has a technical engineering background with a PhD in Hypersonics and is an experienced sustainable building's design engineer. Anne has developed and facilitated many workshops and helps clients to understand the disruptions that are inevitably occurring and helps to empower them to make the most of the opportunities that arise.

Anne recently developed a set of Cities Alive cards focused on Brisbane City as part of the World Science Festival Brisbane. The cards were developed through an iterative workshop process and used at the Transforming Transit workshop which developed prototype ideas for improving urban mobility in Brisbane.

Anne is working on a variety of projects including Future Libraries and Future of Schools and running a masters course in Strategic Foresight for the University of New South Wales.

With automation predicted to reduce existing jobs by around 50%, life expectancy increasing and globalisation making the job market more competitive students of today will face vastly different futures compared to previous students. It is therefore extremely important that students are flexible, adaptable, technologically savvy and entrepreneurial.

Arup have recently completed an international research piece looking at the future of learning. This research has focused on 4 main categories including the physical space, the future skills that students need to learn, learning techniques and how they are evolving and also how schools form an integral part of a community. Digital technology was found to overlay into all categories.

The research included workshops, international case study collection, international and local interviews and desktop studies. Although the study focused on pre-tertiary education comparisons were made to evaluate where learning techniques and spaces were suitable for all ages and when these needed to be adapted to meet the needs of a certain age group. Also close observation was paid to the transition years as students move into the higher education system and how they can be best prepared for this step in their lives.

The Physical Space theme explored sub-themes such as new generational learning spaces, the third teacher, healthy spaces, green schools, flexibility and adaptability, open plan areas compared to smaller controlled spaces, rural Schools, Indoor and outdoor spaces, urban schools including vertical schools, designer Schools and Campus Schools.

Environmental Factor for schools were also reviewed including air quality, acoustics, lighting and thermal comfort. Examples where the items have been demonstrated to be of utmost importance are discussed.

Future Skills that students require were found to include entrepreneurship, health and wellbeing, sustainability, urban manufacture, innovation and technology, communication and Collaboration, flexibility and initiative. Real life experiences were key to comprehensive learning.

Learning Techniques covered in the study included accessible and Inclusive methods, open learning models, the flipped classroom, life-long learning and cognitive teaching as well as reviewing some of the popular teaching methods such as Montessori or the Reggio Emilia approach.

The final category looked at how schools were integral parts of the community and examples where community masterplans had been based around schools. Parental and community involvement in schools was found to have profound anti multi-layered benefits.

The presentation will discuss some of the 40 case studies that were collected by Arup staff around the world as well as many more.

