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# Workshop: Barriers for higher education

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[1]*The Norwegian Directorate For Children, Youth And Family Affairs , Oslo, Norway*

Keywords: students, accessibility, education, universal design,

2 hrs workshop

The aim of this workshop is to find out how to secure students with disabilities the same opportunities as other students
In the nineties the Norwegian government had a goal on giving actual right to education for students with disabilities. That meant that barriers should be identified and removed. This goal was followed by action plans and regulations regarding the education institutions responsibility for facilitation for students with disabilities. In spite of these actions, the number of students with disabilities that takes higher education is still lower than in the regular population.

Survey
In 2017 the Norwegian Directorate for Children, Youth and Family affairs conducted a survey on barriers for higher education among people with disabilities. 619 respondents finished the survey. Among the findings we saw that:
-       23% of the respondents said that they where met by physical barriers due to their disability
-       88 % answered that they where met by pedagogical barriers
-       53 % received some kind of pedagogical facilitation
-       65 % would have chosen another study or education institution if it had been more accessible, or better access to aids
-       83 % have to work harder than their companions due to their disability

These findings show that there is a long way to go before students with disabilities have the same opportunities as other students. In this workshop we want to discuss how to remove the barriers, and to find out how to secure students with disabilities the same opportunities as other students.
We also want to make an arena to share experiences from different countries, and to find whether there are some common strategies that are successful in more countries. We plan to invite resources from other countries to make a short introduction on the topic, to build a discussion based on different experiences.

Questions for discussion:
-       How to create awareness on the barriers?
-       How to make the educational institutions responsible?
-       How to remove the barriers? Where to start?
-       How do the barriers differ between countries?
-       Which actions have been undergone in the different countries? What works?

# Utilizing universal design for learning in a university learner support service

Mrs Krista Elliott[1]
[1]*University Of Ontario Institute Of Technology, Oshawa, Canada*

Universal design for learning (UDL) is a framework that provides students with equal opportunities to learn. It is based on research in the learning sciences and cognitive neurosciences and emphasizes engagement, flexibility, as well as individuality through the learning process. In this workshop, the Student Learning Centre (SLC) at UOIT will share how they utilize a UDL framework in a learner support service to meet the needs of learner variability and to optimize engagement. Through different modalities of service, academic specialists and student staff employ strategies to provide multiple means of engagement, representation and action whether they are working with one student or a group. For all students, the goal of learning is not just mastery of knowledge, but to use meta cognition to apply what is learned, and the SLC integrates strategies to guide students down this path. Understanding the SLC's approach to UDL will help demonstrate how other student support services might examine their own approach and adapt new ways to meet the needs of diverse students in their institution.

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# Early Years Settings from a Universal Design Approach: early childhood education and care settings to enable independence and social participation

Mr Thomas grey[1], Dr. Rita Meila[2]
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Children need to grow in warm, supportive companionship with other children and adults. Early childhood education environments should be relational spaces, spaces of encounter, spaces which delight the senses and lift the spirit. Within these meaningful spaces children, educators and parents weave a tapestry which supports young children's holistic growth and development. These spaces are places where children and their families and the early childhood educator feel a sense of belonging and identity, these are empathetic spaces supporting both children and adult's rights to engage and participate to their full potential. These nurturing pedagogical spaces provide a sense of security for the individuals who access them, enabling independence and social participation by all.

In Ireland programmes such as Aistear and Síolta provide frameworks to support this kind of environment, but it is essential that the built environment in these settings is accessible, easily understood, and usable for all people regardless of age, ability, disability or size.

In this context a research project was commissioned by the NDA's CEUD and the Department of Children and Youth Affairs, and carried out by Early Childhood Ireland, TrinityHaus, TCD, and Mary Immaculate College, to research best practice and produce set of Universal Design guidelines for the design and retrofit of the built environment in early years settings.

This workshop will set out the key findings from this project, and conduct an exercise with the workshop participants to apply the guidelines in hypothetical scenario.

# A dialogue about an experiment of Community Involvement in planning and in an Inclusive Project within Rome city historical context

arch. PhD candidate Francesca Bozza[1]
*[1]Sapienza, Università Di Roma , Rome, Italy*

The proposal aims to encourage a discussion about the contributions received within the Research Project financed by Sapienza Università di Roma_2017, proposed by the Phd Student Francesca Bozza. It's based on an agreement with a public administration: Design for sensible experience. Subjects of discussion will be the reports of reactions, opinions, comments and advices on the inclusion level of the Cultural Heritage areas of Rome, uploaded by citizens through a dedicated web platform or through a Help Desk opened at the Municipality_I. Narratives of personal experiences are collected thru five templates of questionnaires that, during the Workshop, will be evaluated, considering the effectiveness and the typology of opinions asked to Rome users, as much as the social impact of the research experience.

The debate will be focused on the occasion of open up a dialogue with socially weaker citizens and Rome tourists, thanks to an agreement between a research project and the City Department of Social Affairs. Workshop participants will be able to leave feedbacks about research results and datas collected, that are used for the following project outcomes:

1. an users friendly Rome walkable map. Graphic, usability, communication capability will be discussed;
2. an emotional map of Rome users. The accessibility level, the representative effectiveness, and the synthesis of "mental topographies" will be evaluated in the discussion;
3. a roman archaeological paths Design Proposal. The level of Inclusion and feasibility studies will be estimated with participants;

A short gaming simulation, with customized playing card, will be held in the second part of the workshop. The topic is the human senses perception; it aims to make people think about the needs of users with sensory and physical disabilities.

In turn, the participants impersonate a type of citizen with special needs, for about 5-8 minutes.

In the end participants will share their impressions. It's proposed a final discussion on considerations, potentiality and future developments of the research

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## Enhancing Student Success through Academic Advisor Training

Dr Susan Forbes[1], Ms Kerry Morrison[1], Catherine  Drea[1]
[1]University Of Ontario Institute Of Technology, Oshawa, Canada

This workshop, co-facilitated by Dr. Susan Forbes and Ms. Kerry Morrison from the University of Ontario Institute of Technology, describes the steps and process involved in providing credential-based training to standardize Academic Advising campus-wide. Currently, UOIT utilizes a decentralized academic advising model (e.g. housed within individual faculties). Such an approach is, in many ways, a strength as it can provide opportunities for advisors and advising offices to offer high-impact and innovative services, along with a strong and accessible support network for students. The decentralized model also allows professional advisors to become "content experts" for their respective programs. However, such a model can also present challenges. For example, the nature and quality of advising may be inconsistent across faculties. Specifically, the presenters will focus on the development and implementation of standardized advisor training by discussing key issues/areas:
1.	Standardizing training of advising-related staff relevant to their specific role;
2.	Identifying and implementing continuing professional development opportunities;
3.	Implementing a revised academic advising delivery model;
4.	Elevating the profile and value of academic advising campus-wide;
5.	Developing and implementing a university-wide standardized assessment process for academic advising (i.e. advisors and advising units).

Data collection and metrics will also be presented.

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## Images of the Potential Benefits for Learning Together

Dr Denise Lyons[1], Mr Jim Donnelly
[1]Institute Of Technology Blanchardstown, Dublin, Ireland

This is a presentation on the potential for people with diverse abilities to learn together within creative third level learning environments. Artist Jim Donnelly chose the medium of paint to represent the learning experiences of six third level students with an intellectual disability within the integrated learning modules of 'Creative Studies' (BA in Social Care) and 'Therapeutic Horticulture' (BA in Horticulture). The Daughters of Charity Project is located within the Institute of Technology Blanchardstown, which provides full-time ITB students with an opportunity to learn with a diverse student cohort. The programme exceeds the sum of its parts, creating a magical experience for everyone involved. Artist Jim Donnelly is the husband of Dr Denise Lyons, one of the lecturers involved in the project. He chose to capture this experience through a series of oil paintings. The process of painting students with an intellectual disability enabled Jim to illuminate their ability to be creativity, which has emerged through their participation in the programme.

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# Harnessing Design Thinking in Education - A Human-Centered Approach

Dr Jordanne Christie[1]
*[1]Durham College, Oshawa, Canada*

Design Thinking is a creative mindset and methodology for solving complex problems with a human-centered approach.  Focused on user empathy, collaboration, and experimentation, design thinking is being applied in a variety of fields from architecture, business and social innovation, to healthcare, education, and beyond (Brown & Wyatt).  This workshop will introduce the principles and processes of design thinking and will provide an overview of how this approach is being used to tackle educational challenges ranging from classroom design to large-scale curriculum projects.  Participants will gain hands-on experience with design thinking by engaging in an experiential design challenge where they will have the opportunity to identify challenges, gather information, generate potential solutions, refine their ideas, and test their solutions. Throughout this workshop, participants will learn how to look at educational challenges through the lens of a designer, and will achieve the creative confidence needed to begin applying the design thinking process to solve problems within their own educational contexts.

Learning Outcomes
Upon completion of this workshop, participants will be able to:
• Describe design thinking and discuss key concepts, theories and frameworks within the field
• Explain how design thinking can be used to address complex educational challenges
• Apply the design thinking process and empathic design tools to a given educational challenge
• Discuss the challenges of applying design thinking with a variety of educational contexts

References
Brown, T., & Wyatt, J. (2010). Design thinking for social innovation IDEO. Development Outreach, 12(1), 29-31.

# Understanding the complexity and diversity of lived experience when designing for neurodiversity: lessons in knowledge exchange from qualitative research methods.

**Ms Maximilienne Whitby**[1], Professor Catherine Bridge[1]
[1]*University Of New South Wales, Sydney, Australia*

Purpose:
During this workshop, attendees are invited to engage in growing their communication skills. Because people are at the heart of universal design, insight into the lived experience of end users is vital to the framing of the design problem. Therefore, knowledge exchange between clients and practitioners has the potential to be important in informing the design process. This is because in order to innovate creative design solutions, the initial catalyst must first be comprehensively understood, which can be particularly challenging when investigating the needs of stakeholders with neurodiverse diagnoses and the implications of the diversity of lived experience. Making space for those stakeholders to take ownership of conceptualizing and communicating their spatial needs is important. By expanding the communication toolset of practitioners, there is the potential for richer community and client engagement, both at the design and post occupancy stages of a build.

Description:
This 30 minute workshop will be facilitated by two experienced accessible built environment researchers; it offers an introduction to the use of card sort as a communication tool. Examples of recent experiences using this technique, and its strengths and weaknesses, will be briefly presented followed by a practical learning exercise. Workshop attendees will have the opportunity to explore facilitating a card sort based on a real world research project involving the Sydney Opera House. By engaging with role play activities based on the qualitative research method of card sorting, participants will explore its potential for use in client - practitioner communication.

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## Animation films in the organization's training program

Mrs Randi Katharina Øverland, Ms Astrid Røhme
[1]Norwegian Public Roads Administration, Lillehammer, Norway

In 2015 "Team universal design" in the Norwegian Public Roads Administration (NPRA) got means from the Directorate dealing with universal design (https://www.bufdir.no/uu/). The team had applied financial support to make three short animation films to explain universal design in road planning in a simple way. The main theme was to introduce the people who were planning and building roads to a new, smart way of thinking – to build the traffic system functional for car-drivers, the walking, the biking and the bus-passengers, even those with different challenges. Necessary for some- good for everyone.
In 2017 the fourth film was made- about orientation, how to find your way. It is important for the visually impaired, the blind and for people with cognitive problems and those who do not know the area (i.e.tourists).

Universal design will cause better accessibility for everybody, the environment will be safer, which will reduce the numbers of accidents. Universal design will make it easier for several people to participate in the society- with a wheelchair, prams with babies, walking aids as walkers and crutches, etc. Universal design make it easier for everybody to choose to walk and bike - which will improve the air quality and the general public health.
We will show the films (English text)- and tell you about how we use them in the organization's training program.

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## What have happened in Japan after the East Japan Earthquake and Tsunami? - Universal design and disaster preparedness

Dr Satoshi Kose[1]
[1]International Association for Universal Design, Minato-ku, Japan

In 1995, Japan experienced Great Hanshin Earthquake, which reminded us of the vulnerability of seniors and people with disabilities after the disaster. Problems were evident at emergency shelters, temporary housing, and at many more occasions. Efforts have been done to mitigate problems that are sure to arise with the future disaster. However, when the East Japan Earthquake and Tsunami occurred, more problems needing solutions emerged. Instead of preparing just for disasters, novel ideas based on universal/inclusive design have been brought about. The proposed Workshop will show examples of such ideas that have won the IAUD Award in the past years, and we will discuss crucial issues of disaster preparedness. https://www.iaud.net/global/award/

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# Unfinished Work or Just Starting? Designing Supportive Pathways to and in Postsecondary for Students from Marginalized Communities in Canada and Ireland

Dr Tim McTiernan[1,2], Dr. Liam McGlynn[3]
[1]Queen's University, School of Policy Studies, Kingston, Canada, [2]University of Ontario Institute of Technology, Oshawa, Canada, [3]Institute of Technology Blanchardstown, Blanchardstown, Ireland

Canadian and Irish postsecondary institutions are working in parallel to build support systems and pathways into and through third level education for students from under-represented and marginalized communities. In Canada, for instance, there is a growing body of scholarship and practice on enhancing access and designing retention strategies for Indigenous and racialized students and students who are under state protection or from socio-economically marginalized communities. Likewise, in Ireland, there is increasing attention to community outreach, pedagogical design, scholarship and practice related to equitable access for students from six specified under-represented groups listed in the Higher Education Authority's National Plan for Equity of Access to Higher Education 2015-2019. Included in that list are Irish Travellers, entrants from low participation socio-economic groups and, as is the case in Canada, students with disabilities.
The workshop will bring together Irish and Canadian colleagues working on access and retention issues to exchange examples of good practice, to discuss and address core challenges and successful strategies in engaging with potential students, and to explore tacit obstacles and biases in the culture and life of postsecondary institutions that are barriers to success for students from marginalized communities. The objective of the workshop is to identify synergies in research, student support, community engagement and pedagogical innovation that can form the basis of a bilateral, co-operative programme of work on Equity of Access, within the framework of the Canada-Ireland Centre for Higher Education Research, Policy and Practice (CHERPP).
The workshop will be facilitated by Irish and Canadian co-chairs. It will be structured into three segments:  A panel of Canadian and Irish colleagues who will make brief presentations on their work on access, retention, and student strategies for success as context for a broader discussion among workshop participants. Panelists will have to opportunity to present slide decks of their projects, using no more than three slides. Following the panel presentations, participants will break into working groups with the challenge of making recommendations on high impact collaborative scholarship and joint initiatives contributing to sustainably enhanced access opportunities, pathways to learner success and greater rates of retention. The final segment of the workshop will be to aggregate the recommendations from the working groups into a collaborative programme action plan, and a preliminary list of Irish and Canadian participants in each of the components of the action plan. This action plan will become a part of the overall set of bilateral collaborative research initiatives under the CHERPP umbrella.

Co-Chairs: Dr Tim McTiernan, Visiting Scholar, Queen's University School of Policy Studies, and UOIT;   Dr Liam McGlynn, Lecturer in Community and Youth Development, Department of Humanities, Institute of Technology, Blanchardstown
Confirmed Panelists – Canada
Dr Wesley Crichlow, Professor, Faculty of Social Sciences and Humanities, Chair, Equity, Diversity & Inclusion Taskforce, UOIT
Dr Maurice DiGiuseppe, Interim Dean, Faculty of Education, UOIT
Dr Alyson King, Associate Professor, Faculty of Social Sciences and Humanities, UOIT

Dr Susan M. Brigham, Professor, Faculty of Education & Chair, the Alexa McDonough Institute for Women, gender and Social Justice (AMI), Mount Saint Vincent University
Confirmed Panelists – Ireland
Dr Garreth Smith, Assistant Lecturer, Community and Youth Development, Department of Humanities, UOIT

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## Paper: (De)colonization, Racialization, Racism, and Canadian Families: Relearning through Storytelling about Lived Experience.

Prof. Wesley Crichlow[1]
[1]*University Of Ontario Institute Of Technology, Oshawa, Ontario, Canada*

Racial and racialized gaps in scholarly knowledge achievement about families can be attributed to how we value (i.e., not erase) our differences and equitably share power in the classroom as students and professors. As a Black, gay, immigrant professor, I understand my duties and responsibilities to include advocacy for and with Black, LGBTQ, and racial minority students, including in the study of racialized and immigrant families. I have found joy in working with Black and racialized students as a way to challenge past ruins. Indeed, in my support of decolonizing education, learning/unlearning/relearning ((Tofler 2009), retention, and success within the white academy, I have experienced the importance of hearing racialized students' powerful testimonies of family in order to validate their contemporary lived experiences. I have heard of how the socio-cultural context experienced by some immigrant families places them at a starting disadvantage; hence, parents are seen as the source of children's skill gaps before they enter school. Other examples from my 15 years of teaching and employing storytelling and social justice pedagogy in the university classroom setting are highlighted in this presentation to stress the importance of relearning racialized and/or immigrant students' family meanings, practices, and processes through their own voices

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# Design for More Types

Dave Edyburn [1], Keith Edyburn[2]
*[1] University Of Central Florida, Orlando, Florida, United States, , [2] Maternity Neighborhood, Charlottesville, Virginia, United States*

Whereas the philosophy of UDL is relatively easy to understand, it has proven problematic to design, implement, evaluate, and scale (Edyburn, 2010; Edyburn & Edyburn, 2015; Rao, Ok, & Bryant, 2014). As a result, new directions are needed if the potential of universal design is to be captured in meaningful interventions that improve access, engagement, and outcomes.

The purpose of this proposed hands-on (i.e., Bring Your Own Device) workshop is to introduce participants to the Design for More Types model. Universal design is not an alternative form of lesson planning. Rather, it is more like engineering because it involves an understanding of materials science, and robust testing, to understand both efficacy and failure. By operationalizing the active ingredients in universal design interventions, designers, researchers, and practitioners can begin to contextualize the decision-making process in economic terms to understand the costs, benefits, and trade-offs associated with designing instructional content in various types of containers (e.g., text, audio, and multimedia) and measuring the accessibility and usability of the educational materials.

Participants will be guided through hands-on activities in which they (a) create print, audio, and multimedia content, (b) use a simulation to model the accessibility and usability features of their content and calculate the pollution costs of distributing non-universally designed materials, and (c) estimate the return on investment for optimizing the accessibility and usability their instructional design through a commitment to design for more types.

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# Diving Deep with Maker Tools and Pedagogies

Dr Janette Hughes[1], Laura Morrison[1], Laura Dobos[1]
*[1]University Of Ontario Institute Of Technology, Oshawa, Canada*

Our workshop will provide participants with a brief overview of the maker movement in education and an opportunity to engage in hands-on learning through the use of inquiry-based and personally meaningful making challenges. The session's structure will serve as a live example of how educators can use making to help students develop deep knowledge and understanding of math, science, technology and engineering concepts and importantly, where the arts (visual, design and literary arts) fit seamlessly into this subject-integrated model of learning. Through the use of our STEAM 3D Maker Lab's online making challenges, participants will be placed in small learning groups and encouraged to either work together or on their own to complete as many or as few challenges as they wish. Some participants may choose to "dive deep" with one challenge and tool (such as building a circuit using Arduino and programming it using the Arduino coding language) or they may choose to "cast their net widely", sampling many challenges and tools to get an overview of the variety of maker tools available. Tools for the session include (but are not limited to): Augmented and virtual reality apps and headsets; circuit building kits such as Arduino, MaKey MaKey, e-textiles and sticker-circuits; programmable robots such as BeeBots, OzoBots and Spheros; green screen technology; 3D printing, including additive printing with TinkerCad and subtractive printing with Carvey. The session will end with a brief consolidation discussing where educators see these tools and similar challenges fitting into their own context.

# Workshop:  Collaboration and Globalization of Universal Design in Interior Design

Ms Barb Mueller[6]

[1]Designs Anew Houston Llc, Seabrook, United States, [2]Art Institute of Houston, Houston, United States, [3]National Association of Home Builders, Washington, United States, [4]National Kitchen and Bath Association, Washington , United States, [5]American Society of Interior Designers, Washington , United States, [6]Greater Houston Builders Association - Remodeler's Council, Houston, United States

Workshop:  This workshop will entail 2 hours of sharing ideas, pedagogy, examples, and classroom activities for professors in Interior Design departments of colleges and universities worldwide.  I would like to organize a round table discussion with other teachers from all countries who would love to share their ideologies, theories and classroom techniques for incorporating Universal Design approaches in all types and areas of Interior Design. Some areas of discourse would include: which classes are best suited for inclusion of UD's design applications; in which courses to introduce UD to students; how UD is taught; and how to inspire and motivate the students to implement it in all their projects.  Other relevant topics would include: which kinds of conferences, webinars, networking, student competitions, extracurricular activities, etc. are best suited to explore Universal Design principles, features, and products for students, as well as instructors.

In the United States, Universal Design is still a new conception to many; whereas, its legal predecessor, the Americans with Disabilities Act (ADA) is well-known. They both have a basis in Ergonomic and Anthropometric data, but Universal Design is now making headway in non-residential spaces to go beyond the bare minimums required by ADA.  The teaching methods, therefore, between the United States and other countries are different and varied.  It would be beneficial to all professors worldwide to share ideas, curriculum content, and methods of pedagogy with interested colleagues.

Interested participants are encouraged to bring copies of their lesson plans, course schedules, and class activities to this roundtable.

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## Innovative Solutions for Universal Design: A Certification Program

Dr. Edward Steinfeld[1], Dr. Jordana Maisel[1], Mr. Jonathan White[1], Mr. Heamchand Subryan[1]
[1]IDeA Center, Suny Buffalo, Buffalo, United States

The IDeA Center at SUNY/Buffalo has developed an evidence-based certification program for universal design called innovative solutions for Universal Design, or isUD. The program currently addresses the design process, site design, building design, facilities management and operational policies for public buildings. It includes over 500 strategies, both optional and required, to aid designers, facility managers and building owners in implementing a balanced approach to universal design . The isUD system can be used to certify both new and existing buildings. It is affordable, easy to use and works on desktop, laptop and tablet platforms. The effectiveness of an early version of the program was tested empirically with a new building project. This research lead to a major revision and development of an online application system. Additional testing with five early adopter organizations is now underway. These projects include diverse building types, both new and existing construction, and different project scopes and sizes. The isUD certification interface is available for use online in two modes, self-assessment and audited certification. This workshop will describe the development of the isUD system and how it works in practice, with concrete examples from case study buildings. Participants will also engage in a discussion about how the current platform can be enhanced to become a central component of a "community of practice" in universal design.

# Education through the lens of avatars

Ms Siobhán Enright
*[1]Institute Of Technology Blanchardstown, , Ireland*

The Creative Digital Media programme in ITB seeks to enable the learner to express meaning through the creation of visual artefacts by means of employing mediums of technology, creative practice and critical contexts.

During this workshop we will explore the ways in which representations have the capacity to communicate values that privilege or marginalise certain identities. This workshop will seek to enable the learners to gain greater insight into both themselves and the world they live in by encouraging them to explore and engage with the point of view of the other.

Participants will be invited to bring with them their laptop or tablet for the purpose of making an avatar through provided online platforms. These will be then be used as a means to discuss issues of contemporary politics and societal challenges.

Through a discussion concerning the platforms used we will begin to navigate that which limited the possibility of accurate representation as well as the identities that were privileged.

The aim of this workshop is to offer an alternate means of designing content within the learning environment. A means by which participants are encouraged to engage in immersive visual learning by providing an opportunity to gain knowledge through experience.

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# Methods for assessing visual clarity

Sam Waller
*1 University of Cambridge*

Interpreting icons and graphics on small display screens is required in order to perform many tasks that are essential for daily living. When trying to ensure that these tasks are universally designed so that they can be performed by all people, guidelines typically resort to ensuring that textual alternatives are available for any visual stimuli. While textual alternatives gives a necessary backstop, Cambridge believes that the graphics themselves should be visually clear enough, that a majority of the population can perceive them directly.

Participants will be introduced to a variety of methods for assessing the visual clarity of graphics on small display screens. One of the methods involves simulating varying degrees of visual impairment in order to determine the visual clarity of the graphical details. The other method involves measuring how far away an assessor can stand and still view the graphical details 'quickly and with certainty'. It is hoped that attendees will learn these methods so that they can continue to use them in their work.

The majority of the workshop will involve using these methods to assess visual clarity within interactive exercises. The workshop is intended for anybody who commissions the creation of graphical materials, or anybody actually creates these materials, or anybody who writes guidelines that intend to ensure that visual materials are suitably clear.

Attendees will not need to bring any special materials.

# Integrating and delivering Universal Design in Agile UX software development teams

Dr. Enda Finn[1], Dr Gerry Coleman
[1]*Dundalk Institute of Technology*

*The Department of Visual and Human Centred Computing (DVHCC) at Dundalk Institute of Technology (DkIT), in collaboration with the Centre of Excellent in Universal Design (CEUD), has pioneered the development and delivery of Universal Design through Agile UX to undergraduate students in both 3rd year (Universal Design Project) and final year (Team Project) modules on the Honours Degree programmes in Computing and in Games Development.*

Modern software development teams are being tasked with creating sophisticated, highly interactive, visually rich apps, immersive 3D games, VR and AR simulations. The range and complexity of the application domains being considered and the specialist user needs addressed is rapidly increasing.  From rich social media apps, to immersive and well-being enhancing games to sophisticated engineering support tools, such diverse scenarios present  significant challenges related to interaction, modality, human factors and usability. These require both user-centred and user participative design. Through the integration Universal Design principles and design practices into modern Agile UX process and tools, significant progress can be made in achieving effective and innovative solutions by employing a deeper, more empathetic understanding of users' needs and capabilities.

This workshop provides an overview of the Agile UX development processes and tools used to integrate Universal Design thinking and practice into modern software development. Participants will consider a selection of sample projects, looking at specific design scenarios and user requirements, whilst evaluating and recommending alternative approaches based on application of specific Universal design principles.

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## Technology for an Inclusive Higher Education Experience – A Workshop to demonstrate the diverse range of technology for Learners.

Dr Catherine Deegan[1], Mr Trevor Boland[2], Ms Carissa Smith[2]
[1]Institute of Technology  Blanchardstown, Dublin, Ireland, [2]Dublin Institute of Technology, Dublin, Ireland

The Irish Disability Act (2005) places a statutory obligation on public service providers to provide access to services and facilities for people with disabilities. Under this act, people with disabilities are entitled to have their health and educational needs assessed and have individual service statements drawn up, setting out what services they should have made available to them.

Assistive technology is any piece of equipment, software, or product system that is used to increase, maintain, or improve the functional capabilities of persons with disabilities. In the educational context, it refers to items of technology that create a fair learning experience for all students. Many Irish higher education institutions have assistive technology units incorporated as part of their student services.

This technology can benefit all learners and educators, however, the difference it makes to those with disabilities is that often, it makes learning that was previously inaccessible, achievable.

We propose to run a workshop where a selection of the most commonly utilised educational technologies will be presented and demonstrated.

The workshop will demonstrate this range of technologies and match them to learner needs such as reading, writing and handwriting challenges as well as memory and organisation impediments. The technologies will be in several forms and match a diverse selection of learner requirements. These will include the built-in features and apps commonly found in smartphones and tablets and finally laptop supports in the form of software and browser plug-ins as well as hardware tools such as scanning and recording pens.

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## The Application of Captions and Transcripts as Interactive Learning Tools

Mr Michael Guy[1], Ms Bridgette Atkins[1]
[1]University Of Ontario Institute Of Technology, Oshawa, Canada

Video and audio captions are an important and often a legal requirement for accessibility purposes. Captions and transcripts, however, are less often thought of as a means to support and enable learning. Faculty and administrators in higher education are unlikely to be aware of the broad range of benefits that captions may provide university students (Gernsbacher, 2015, p.5).

This workshop examines the application of captions and transcripts as a means to enhance learning for all and provide a platform for meaningful interactivity in the form of, but not limited to comprehension, search and retrieval, recommendation engine, study notes, language translation, and learning activities.

Alignment to the Universal Design for Learning (UDL) Guidelines of engagement, representation, and, action and expression will be made throughout the workshop.
Participants will discuss case studies from existing literature, learning activities, and the challenges of faculty and institutional awareness towards captioning. Hands-on activities will be developed to demonstrate these alternative applications.

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## UDL Math and Science to empower and engage your students

Mr John Mcgowan[1]
[1]Texthelp, Antrim, United Kingdom

I think of UDL as a framework that provides choices for students to respond in the method they prefer. In this workshop, Texthelp's STEM Product Manager will detail how you can engage and empower students in math and science through digital notation and leveraging technology in the classroom. You'll also learn the best methods to increase student communication and decrease the feedback time for teachers -- all while increasing the quality of the feedback by using EquatIO and other digital tools. Your students will give better responses and you will be giving better feedback to your students fast

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## The Old Wild Place: Stories from Colorado elders help uncover the importance of place throughout the landscape of your life.

Nichole Kain[1]
[1]Home And Place Project, , United States

Join environmental gerontologist and occupational therapist Nichole Kain as she takes us on a journey through the Rocky Mountains of Colorado, speaking with elders about the importance of their home and place. Throughout this 2-hour workshop, we will witness stories unfolding and reflect on them through group discussions and personal drawings (no artistic abilities needed). This experience will help us to become more aware of deep connections to places that run throughout the landscape of our own lives.

As experts in the field of universal design for the built environment, we directly affect the feeling of a place. To understand our own connections to homes and places becomes a powerful tool in the way we look at and impact the built environment. This intimate look at the elders we serve will help deepen our understanding of the regional cultural narrative of the people who live in the mountains of Colorado.

Themes: importance of place, place attachment, aging in place, environmental autobiography, gerontology, storydwelling

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## The role of Community Development in challenging Climate Change: Collaboration with Sustainable Development to inform State funded Community Development

Dr Liam McGlynn[1]
[1]*Institute Of Technology Blanchardstown, Dublin, Ireland*

The workshop will focus on a post-graduate Masters by Research project currently being undertaken by the author and postgraduate research student at ITB on the role community development can play in tackling climate change.

The research question asks:
What role can the community development sector play in addressing the challenge of climate change through state and EU funded development programmes in Ireland ?

The workshop will include input, small group discussion, action planning, feedback, and plenary

Input will cover a number of themes (from literature):
- Community development  and local development in Ireland.
- Ireland's obligations under the Paris Agreement and other international climate change agreements through the EU.
- Identification of any gaps in sustainable development or climate mitigation goals in state funded programmes for community and local development e.g. SICAP Programme (Social Inclusion Community Activation Programme), Leader Programme.
- Canada's obligations under the Paris Agreement and experience of addressing climate change in Canada.

Discussion (small gorup and feedback)
- What role does community development play in challenging climate change?
- How might community and local development programmes be 'proofed' to ensure climate protection and sustainable development are key cornerstones of these state programmes.

Feedback and Plenary
- What role can our higher education institutions play in engaging with community development ans sustainable development actors to address the climate change challenge.
- What specific actions could be undertaken by the Ireland Canada HE partnership, the Universal Design and Higher Education in Transformation Congress and CHERPP to address climate change.

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## Facilitating International Collaboration

**Dr Jordanne Christie**[1], Mr. Robert Savelle[1], Dr. Cormac Doran[2], Ms. Claire Mac Namee[2]
*[1]Durham College, Oshawa, Canada, [2]Institute of Technology Blanchardstown/Learning and Innovation Centre, Blanchardstown, Ireland*

In this workshop, presenters from Durham College, the Institute of Technology Blanchardstown (ITB), and the Learning and Innovation Centre (LINC) will provide a brief background on their shared experience of developing a collaborative General Education course with an international exchange component.  Insights gained and lessons learned from this project will also be shared.  Workshop participants will be asked to share their own experiences with collaborative international initiatives and we will discuss common challenges that arise when working together across diverse institutions and within different educational systems.  Working as a group, the participants will brainstorm potential solutions to the identified challenges, and develop a set of recommendations that can be used to guide further collaborative projects within their own contexts.

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## It's the economy stupid! Designing employability into your students' educational experience through extra-curricular events.

Mr Paul Dervan[1], Ms Bairbre Brennan[1], Ms Amanda Dixon[1], Mr Tom Mulvey[1], Mr Tom McGrath[1]
[1]Institute Of Technology Blanchardstown, Blanchardstown, Ireland

The core purpose of higher education has been transformed with Higher Education Institutions (HEIs) increasingly being held to account for their contributions to the economy.

Accordingly, HEIs are introducing work placement opportunities as part of their curriculums and embedding effective workplace skills as part of their graduates' attributes.  Moreover, in the USA colleges such as the University of Oklahoma and North Eastern University are using the preparation of their students to be effective in the workplace as a differentiator.  Significantly, students themselves see higher education as a route to a good job.

It is against this backdrop that the School of Business at the Institute of Technology, Blanchardstown (ITB) developed a one day 'Pathways to Success' career event for 600 students.  The event comprised three components:
1.        Six concurrent programme-specific colloquiums at which students were exposed to the thinking of industry practitioners relevant to their programme.
2.        A plenary session at which students were addressed by a keynote speaker (Dr Nora Patten), as well as ITB's President and the Head of School of Business.
3.        Linkedin, CV and Interview skills workshops (for students departing in 2018).

The purpose of this proposed UD2018 workshop is twofold:
1)        To review original research based on feedback from students who participated in the 'Pathways' event and staff who organised it.
2)        To provide a platform for knowledge sharing, discussion and the development of ideas on how best HEIs can be effective in assisting all students in securing employment and on being effective employees.

# Bridging the Gap Between Research, Industry and Student Engagement Using a Global Classroom Platform

**Prof Joanne Spicer**[1], Prof Lon Appleby[1]
*[1]Durham College, , Canada*

In November 2016, the Durham College Victimology Program, National Victim Justice Network and Durham College Global classroom piloted a unique event; the VJN Global Classroom Project.

The Global Class at Durham College is an interactive, high definition livestreamed class allowing learners and community partners an opportunity to interact free of outside influence and geographic boundaries. Our Global Class event brought students, researchers and our community partners together in real time. Students had the opportunity to learn from, and interact with expert researchers and victim service workers on a National level. Recognizing that students, clinical practitioners, and law enforcement officials require access to emerging research trends on assessment and treatment practice, the GC event allowed for feedback and questions from professional practitioners via Twitter. As well, the project provided access to an educational experience otherwise reserved for those attending costly conferences and webinars. The project acted as a conduit for the dissemination of information crucial to students entering their vocational field and provided professional practitioners and community stakeholder's real time access to an expert researcher.

This workshop will discuss and demonstrate the Global Classroom at Durham College and highlight the two VJN Global Classroom Projects completed in November 2016 and June 2017. Participants will have an opportunity to see portions of the events and discuss the functionality of the technology and process of the GC. The presenters will discuss our view of the best practice and lessons learned as we move forward with our students and national community partners.

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# A 'Grassroots' Experiential Learning Project in Food and Farming Education:  Workshop Panel Discussion of Student, Faculty and Community Outcomes

Mr Jay Fisher[1], Mr Ryan Cullen[1]
[1]Durham College, Oshawa, Canada

'Experiential Learning' refers to action-based teaching and learning traditionally focused on benefits for two main groups:  the student and the employer.   A co-curricular initiative at Durham College established unexpected outcomes for a third stakeholder group – the community.  Project 'Grassroots' launched as a collaborative project involving Durham College students, staff, faculty members, and community partners. From 'seeds' planted a year earlier by students engaging with the community, this initiative seeks to achieve a full cycle of impact by making a positive difference in this same community through new experiential opportunities related to food and farming.

This workshop, achieved through activities and a panel discussion, will examine this group's journey from initial community engagement through to the establishment of a formal service learning project, and to the implementation of a community-based food hub.  The workshop will examine the outcomes achieved for each stakeholder group, and how they related directly to various elements of experiential learning including course, service, volunteer, and community-based activities.  Also outlined will be valuable, but unexpected, impacts related to both social innovation and student entrepreneurship.

The workshop and discussion will achieve the following outcomes:

1.      Identify how models for experiential learning can be developed by students in collaboration with their community;
2.      Develop frameworks for service learning opportunities using methodologies in partnership with Enactus – a student-driven organization for social innovation; and
3.      Recognize opportunities for experiential learning within an existing project or community relationship, and build capacity through needs assessment, student actions, and measured impacts.

Active Learning Workbook
# Practical Strategies for Higher Education Workshop

Mr Shaun Ferns[1], **Mr Robert Hickey[1]**, Mr Mark Keyes[1], Mr Joseph Smith[1], Mr Richie Ryan[2]
[1]*Institute of Technology Blanchardstown, , Ireland, [2]Carlow Institute of Technology, , Ireland*

The flipped classroom phenomenon in Higher Education has forced many educators to re-consider on how to best utilize lecture time. Many students are also voting with their feet with low attendance figures being recorded in many institutions. During Higher Education in Transformation Conference 2016 (HEIT 2016), there were several highly energised debates and instructions/examples on how to implement active learning. A key point that emanated from these discussions was that lectures needed practical direction on how to embed active learning strategies into the lecture room. With the ambition of meeting this challenge, the authors of this workshop have commenced the creation of a practically based workshop book, Active Learning Workbook, Practical Strategies for Higher Education, which will include full instructions and examples for the delivery of active learning strategies for higher education. It is hoped that this book, and engagement with several strategies during the proposed workshop, will allow lecturers to redesign the time available for students to enhance their learning experience.

The aim of the workshop is to allow the participants to engage with several of the active learning strategies developed for the Active Learning Workbook, Practical Strategies for Higher Education. The workshop facilitators have previously presented the key theoretical aspects of their approach at Higher Education in Transformation 2016, International Conference on Engaging Pedagogy 2015 and EdTech 2015.

The objective of the workshop will be to:

1.      Demonstrate a variety of Active Learning Strategies as shown in Active Learning Workbook, Practical Strategies for Higher Education workbook.

2.      Demonstrate how these techniques can be used effectively for a variety of group sizes.

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# How we beat the Ontario Building Code – Creating housing options today for tomorrow

<u>Ms Lorene  Casiez</u>[1], Ms Steph Bonic[2]
*[1]Human Space, a divsion of Quadrangle , Toronto, Canada, [2]The Daniels Corporation , Toronto, Canada*

Toronto is in the midst of a building boom and further densification. This housing surge contributes to a vibrant public realm and creates opportunities for more people to live in high-rises, including families. Toronto is quickly shifting to a vertical city, where more and more people are choosing to live close to the downtown core in order to access the best of amenities, services and economic opportunities the city has to offer. However, as Toronto moves through this transition it has become apparent to Daniels and Quadrangle that the rapid development fails to consider the current population demographics and need for inclusive housing options.   As the number of people with a disability continues to rise and with this population already catastrophically underserved in housing options and in combination with our aging demographic, the current housing stock will not meet the needs of its inhabitants in the future.

The Daniels Corporation has built more than 27,000 award-winning homes and apartments, master-planned mixed-use communities, along with commercial and retail spaces, and has earned its standing as one of Canada's largest and preeminent builder/developers. In collaboration with the Accessibility Specialists of Quadrangle's sub-consultancy, the team has identified gaps in the governing standard, the Ontario Building Code (OBC), and have developed a set of standards for all future developments which exceed the minimum requirements in the OBC.

In this talk, Steph and Lorene will describe how Daniels shifted away from meeting the minimum OBC requirements to create the ground breaking Daniels' Accessibility Designed Program (ADP).  The goal of ADP is to provide Ontarians with the option to create flexible individual units to meet the needs of persons using mobility devices at no extra cost. For some time now, Daniels has been looking at various best practices in its public realm spaces, but this would be the first step into creating truly useable spaces for people with physical disabilities who use mobility devices. As the program begins rolling out in various developments in 2018, Daniels and Quadrangle will also continue to explore other design strategies that enhance the usability of these new spaces.

The goal of this talk is to spark discussion around typical housing typologies and to dispel the common misconception that meeting the minimum requirements of the Ontario Building Code addresses the needs of people living in Ontario. Discussion will focus on various technical requirements but will also explore how to create resilient housing options that will support people throughout their lifespan.

Attendees will be engaged in discussing best practice strategies, then will consider areas in the built environment that are not commonly addressed and brainstorm solutions for removing these barriers.

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# Introducing Better Living Design, A New Approach for Market Savvy Universal Design Acceptance

William Owens[1]
[1]Better Living Design Institute, Asheville, United States

A new movement is underway to lead the housing industry towards better design of projects. Better Living Design is a program that rebrands universal design, specifically how UD is presented to the consumer. Our goal is to offer products and programs that reveals UD as aspirational for a household. That is, from the client's point of view, taking "needs" and turning them into "wants". BLD is a fresh approach in how UD is presented to the client. With deliberate transparency of inclusions, we have created criteria that insure a project is not only universally usable but also looks and feels great. By approving designs that meet specific criteria, including strong aesthetic appeal, and long term flexible and adaptable by design, the BLD brand will gain market presence rapidly. Builders, remodelers and designers will be able to differentiate themselves by offering BLD-approved designs and the public will know there is value in seeking out homes that carry the "BLD Approved" designation. BLD is how homes will be built in the future, and the future is here, now. Learn about BLD, BLD approval Tiers, how to design and build Better, and how to be one step closer to the future in your marketplace.

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## Design for All or Design with All? A Hands-on Workshop

**Liz Sanders[1]**,
[1]*Ohio State University*

The workshop will begin with a short presentation and discussion about the similarities and differences between two design approaches: Design for All and Design with All.  Participants will then form teams and work collaboratively to visualize their thoughts, feelings and ideas about the approaches. A co-design toolkit with a wide range of visual and verbal materials will be provided for each team.  The teams will present their visualizations and a discussion will follow.

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# Promoting active learning in the classroom - making the transition from PowerPoint presentations to real-time digital inking

B.A.Sc., B.Ed., Ph.D. Caroline Ferguson[1], B.A.Sc., B.Ed., Ph.D. Olga Bulakh[1]
*[1]Teaching and Learning Centre, University of Ontario Institute of Technology, Oshawa, Canada*

Despite advances in technology, many classrooms remain a passive learning environment where the instructor clicks through pre-made bullet points on a PowerPoint presentation. This discourages spontaneous discussions and student input. For science, technology, engineering, and mathematics (STEM) subjects, a key component in the learning process involves observing the professor think in real time, as he or she develops a problem solving strategy and completes the solution to a problem step by step. Student engagement is enhanced when students are encouraged to contribute to the professor's solution, ask questions when a key step is unclear, and work through the solution in their own notes simultaneously. This is what transforms a passive classroom into an active learning environment.

A Tablet PC combines the features of a traditional notebook computer with the simplicity of pencil and paper. When equipped with a stylus pen, the user has the ability to input electric ink drawings by simply writing on the screen. For STEM - based courses that require problem-solving, real-time digital ink can provide a better interface to support active learning in the classroom than pre-made PowerPoint presentations. When lecture notes are delivered through OneNote, they can be sent directly to a student's cell phone or laptop in real-time.

In this workshop, participants will learn how to promote student engagement by incorporating active exercises into their classroom. They will receive a hands-on introduction to the use of OneNote to deliver their lecture material, and will be tasked with creating short active learning exercises that can be used in the classroom.

# Workshop: Learning Analytics Capacity within your VLE Platforms

**Dr Geraldine Gray**[1], Mr. Daniel McSweeney[1], Dr. Markus Hofmann[1], Mr, Mohammed Ibrahim[1]
*[1]Institute Of Technology Blanchardstown, Dublin 15, Ireland*

Cross-institution adoption of learning analytics is rare and can be a daunting task. Commonly cited barriers to greater adoption of learning analytics in Irish institutions included: limited resources with other business critical priorities taking precedence; a perception of lack of expertise in developing learning analytics capacity; a perception that learning analytics requires a significant capital investment; and a lack of awareness of learning analytics capacity within virtual learning environment (VLE) platforms already in use. However, learning analytics was ranked within the top five institutional priorities for Irish HEIs over the next three years.

The aim of this workshop is to break down some of those barriers. We will demonstrate options for simple, inexpensive, learning analytics that all academics can apply, using their VLE activity logs. It will be a hands-on workshop looking at the data typically captured by a virtual learning environment such as Moodle, and some simple reports that can be generated from that data to identify student disengagement and other performance indicators. Anonymized log data will be provided based on a Moodle activity log. Participants are also invited to bring their own VLE activity logs, provided it is in compliance with their institution's data protection guidelines.

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# The Margins to the Mainstream: Universal Design in University College Dublin and Dún Laoghaire Institute of Art, Design and Technology

Dr Lisa Padden[1], Dr Anna M. Kelly[1], Ms Denise Mc Morrow[2], Mr Colm Olwill[2]
[1]University College Dublin, Dublin, Ireland, [2]Dún Laoghaire Institute of Art, Design and Technology, Dublin, Ireland

This workshop will provide an overview of how Universal Design is being embedded in two Irish Higher Education Institutions: University College Dublin (UCD) and Dún Laoghaire Institute of Art, Design and Technology (IADT), with input from senior colleagues at both institutions.

In this workshop participants will have the opportunity to hear about the strategies we have employed and the lessons we have learned in our endeavour to embed Universal Design and inclusive practice across the four pillars of our institutions:
• Programme Design, Curriculum Design, Teaching & Learning
• Information Technology Systems and Infrastructure
• Physical Campus and the Built Environment
• Student Supports and Services
We will discuss how we developed our work in this area using both a top-down and bottom-up approach. We will share with participants how through an iterative process we continue to identify important levers of change and opportunities to influence the practice across our institutions. We will show how we moved the conversations on from theory to practice and from problems to solutions.
Learning Outcomes
1. Participants will learn how to identify key areas for change and collaborative partners.
2. Participants will be invited to identify areas for change in the four pillars of their own institutions and draft a plan of action.
3. Participants will be given tools with which to approach those at the highest levels in their own institutions to begin the process of embedding Universal Design at all levels, including institutional strategy.

## Designing inclusive Functional Ambiant City Streets

PhD Berry Den Brinker[1], Mr Peter van Rijn[2]

[1]*Free University of Amsterdam, Amsterdam, Netherlands,* [2]*University of Applied Sciences, Rotterdam, Netherlands*

Functional Ambiance proved to be an elegant method for designing vibrant city streets. A crucial part of the method is the 'spider graph', which is used as a communication tool for the members of the multidisciplinary team during the design process.

Each leg of the spider represents one of the eight essential properties of the functional and ambient city street. Traffic engineers, town planners and other professionals who use to fight about the destination of the public space – is it for cars or is it for people? - were able to cooperate using this tool during the whole design process. The method is taught at the University of Applied Sciences in Rotterdam.

A new challenge is how to incorporate the concept of accessibility in the design process. The presenters have different views on how to incorporate accessibility in the tool. Berry den Brinker, expert in the visual accessibility of the built environment, proposes to add an 'Accessibility' leg to the spider graph. Marc Verheijen, with a long experience as traffic engineer and architect and engaged as co-inventor of the tool, adheres another approach to incorporate accessibility in the design process.

To become familiar with the concept of the spider graph, the workshop opens with several examples of large scale projects in designing functional ambiant city streets. After this introduction, the presenters continue their dispute, each of them looking for support from the audience. The presentation will help to develop Functional Ambiance 2.0 and new followers. See also www.functionalambiance.nl

Translation in English is in progress

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## Putting Universal Design for Learning (UDL) at the heart of education – embedding UDL across the curriculum

Dawn McGuckin[1], Anna Natoli[1]
*[1]Durham College, Oshawa, Canada*

This workshop will examine the use of the principles of Universal Design for Learning (UDL) as a fundamental design element of a teaching certificate program for new full-time faculty hires at an Ontario college. In this workshop, participants will be introduced to exemplars from the delivery of the courses in the certificate that highlight the use of the principles of UDL to support a discussion about the importance and significance of modeling the principles of UDL in the delivery of the courses that support the extension of the learning to students in the classroom. The culminating activity will be the opportunity for participants to create and/or revise existing learning activities, the presentation/representation of content, and evaluations/assessments to showcase and engage in peer feedback. Participants should come prepared to discuss existing content and/or ideas to ensure their full participation in the workshop.

Keywords: faculty development, modelling UDL, teaching certificate program, Universal Design for Learning (UDL), learner centered approach

# Building Capacity for Student Resilience

**Dr. Brenda  Gamble[1]**, Dr. Wendy Stanyon[1], Mr. Harry van Bommel[1], Mr Dan Crouse[1]
*[1]University Of Ontario Institute Of Technology, Oshawa, Canada*

Resilient students are dedicated to learning and are focused on academic success.  A team of educators and academic advisors at the University of Ontario Institute of Technology, industry and community partners in the Durham Region, Ontario Canada are developing and implementing strategies and curricula to support and enhance student resilience. We are informed by the literature on resilience that identifies communication and problem-solving skills, emotional intelligence, and mental health and well-being as key characteristics of a resilient student.

Purpose of the workshop: This interactive learning experience will present the interdisciplinary approach taken and the tools and strategies developed and implemented to support students in acquiring and sustaining resilience.

Workshop description: Overview of the team and the overall rationale and approach taken to support capacity building for student resilience. We will invite workshop participants to experience first-hand the tools we have developed including, mandala drawings, graphic novels, programs to assist transition from secondary to post-secondary education, and the incorporation of mindfulness in the curricula and as a virtual resilient resource. Integral to the workshop will be the opportunity for participants to provide feedback on the approach and tools experienced during the workshop, as well as the opportunity to brain storm additional strategies and skills to enhance student resilience.

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## Experiences of third level students of an inclusive education programme in a Dublin college.

Ms Deirdre Bonar[1], Ms Siobhan Cleary[2], Mr Fergus Comerford[1]
[1]*Institute of Technology Blanchardstown, Blanchardstown, Ireland,* [2]*Daughters of Charity Disability Support Services, Blanchardstown, Ireland*

Since 2009 a collaborative programme has been run in the Institute of Technology Blanchardstown (ITB). This programme recruits 6 students with intellectual disabilities from with the Daughters of Charity disability support services in Dublin 15. Students attend ITB on a full time basis for 2 years, completing 7 modules validated by QQI (Level 3). A significant part of the programme involves attending and participating in tutorials across a range of programmes in ITB including Social Care, Sports Management and Therapeutic Horticulture. Students are also encouraged and supported to get involved in all aspects of college life.

This workshop will be delivered by Social Care students and students from the Daughters of Charity programme, who worked together in a Creative Studies module, over one semester (January 2018 – May 2018). Taking a narrative approach, students will detail their learning and experiences in this integrated programme. Working in pairs, students will reflect on their role and lived experience as college students. Students will further focus on how they supported each other, how they learned from each other and what being part of an inclusive programme meant to them.

A short documentary on the inclusive programme will also be shown as part of the workshop.

# Dungeons and Diplomas: using Roll20 to design imaginative learning environments

**Mr Rob Makinson[1]**, Mr. Bryan Jordan[2]
*[1]Okanagan Library, University Of British Columbia, Kelowna, Canada, [2]School of Interdisciplinary Studies, Durham College, Oshawa, Canada*

First developed as an online platform for tabletop roleplaying games like Dungeons and Dragons, Roll20 also contains everything required to simulate real-world events. This free, browser-based platform allows participants to collaborate to solve problems: moveable objects, advanced graphics, a chat window, and embedded group video are just some of its features. In short, Roll20 allows players to simulate anything they can imagine – and most importantly, they will have fun while they learn.

The presenters successfully adapted the program to create an online simulation for an assignment in an event management course at a large Canadian college: a virtual space where students could discuss, annotate, and plan the management of events at real-world locations, complete with aerial maps. Students were able to view and manipulate the environment, controlling elements like security personnel and emergency services in response to surprise events: uncontrolled fires, riots, and armed strangers controlled by the instructor.

During this workshop, the presenters will take you through a tour of a completed simulation, which you will experience from the student's perspective; then we will flip the classroom, and you will become the developer. Whether you create a simple training module or design a fully-realized world from the ground up – complete with free online graphics, background music, and scripted events – you will leave this workshop armed with the tools necessary to create functional, collaborative simulations that empower learners and unleash their collective imagination to solve problems together.