



Cultivating the Possible: Reimagining Education and Society

3rd International Conference of Possibility Studies

July 17-21, 2023
Dublin City University, All Hallows

Book of abstracts

Possibility
Studies
Network

DCU
School of
Psychology



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Monday

*Monday, 09:00 - 09:45
Room Possible (AHC.SG05)*

Welcome & introduction to the event

Vlad Glaveanu
Dublin City University

This talk introduces the conference and the field of Possibility Studies and welcomes participants to DCU's All Hallows campus on behalf of the three organising partners: the Possibility Studies Network, the School of Psychology at Dublin City University, and Creative Ireland. Building on the Manifesto recently published in *Possibility Studies and Society* (Sage), it outlines five key questions for this emergent, transdisciplinary field: 1) What kinds of psychological, social, material, technological and cultural resources and processes enable our engagement with the possible? 2) How do individual differences, environmental contexts and situational factors 'collaborate' in shaping experiences of the possible? 3) What is the relation between individual, group, community and societal forms of becoming aware of and exploring possibilities? 4) How do power relations structure our imagination of the possible and with what consequences for how self and society are constituted? and 5) What is our guide in deciding which possibilities to enact and which to reject, which possibilities are valuable and which are harmful? These and other questions will be explored throughout the five days of a unique conference that brings together 150 participants from over 25 countries, a wide and vibrant community of academics, practitioners, researchers, educators, social entrepreneurs, artists, activists and dreamers.

With contributions from:

Pamela Gallagher
Dublin City University

Clelia Petracca
Palgrave

Monday, 09:45 - 10:15
Room Possible (AHC.SG05)

Principles of Circus Workshop: Movement Creativity

Marion Cossin **Naila Kuhlmann** **Melanie Stuckey**
École nationale de cirque *École nationale de cirque* *École nationale de cirque*

Over the course of three 30-minute workshops, we will introduce three key principles of circus arts: movement creativity, collaboration and risk/trust. You will be invited to explore these principles through a series of short, simple movement activities. Each activity will be introduced and debriefed, drawing links to our respective research and practices.

Imagining at the margins: An anarchic and queer cabaret of possibility

Kieran Fenby-Hulse

Teesside University

In this performative paper I draw on ideas and practices from queer theory, queer cabaret, and punk subculture to explore the anarchic and radical imagination (Levy and Newman, 2019; Beer 2014) in relation to an organised or constrained public imagination (Weick 2010, Miller 2015). With increasing recognition of role imagination and creativity play in shaping our socio-cultural and socio-economic futures by funding organisations, charities, and policymakers (Joseph Rowntree Foundation, National Lottery Community Fund, Esmée Fairburn Foundation, Arts Council England), this paper and micro-cabaret tests an approach to community engagement that encourages extra-ordinary, playful and imaginative responses and acts that are uncanny, unexpected, unorthodox and unsettling. The paper plays with the idea of the “public imagination as focus group” (Johnson, 1996) to highlight how radical imaginative techniques are needed if we are to create deep and meaningful engagement with some of society’s most wicked problems (Rittel and Webber, 1973). Through music and performance, I seek to foster a holistic and pluralistic responses to the UN’s Sustainable Development Goals by bringing together body and mind, placing theory and thought and emotions and desires side by side. The aim is to unsettle the focus(ed) group, weaving and leaving traces of a queer, radical and anarchic futures in mundane spaces such as the classroom, roundtable, meeting room, and conference hall. Referencing recent work done on the Inner Development Goals (Ekskåret Foundation, The New Division and 29k Foundation, 2020) that focuses on the skills individuals need to tackle these challenges, I encourage participants to think of what else is required of us in creative and imaginative terms if we are to make and remake diverse futures that are inclusive, open, shifting, and queer. This work builds on my previous work on using cabaret and imaginative inquiry to explore issues of equity, diversity, and inclusion (Fenby-Hulse, Hills, Caruthers, Collins, forthcoming 2023). Part paper, part workshop, part performance, learning is through both listening, participation and experience. Attendees will likely be asked to sing.

Towards a post-neoliberal concept of creative education

Shannon Steen

University of California, Berkeley

In her book *In the Ruins of Neoliberalism*, political theorist Wendy Brown elaborates the disorienting novelties of the current social and political moment, including the ways that political analyses of authoritarianism have largely failed to fathom how neoliberalism paved the way for its rise in so many global locations. Brown argues that “the ruins” in which we find ourselves are the result of incessant attacks on the social and the democratic and the unabated insistence on and idealization of the individual, and that these facets of contemporary life have all been enabled by the embrace of neoliberalism. But what if neoliberalism has operated so successfully because it seduces, not attacks? In this talk, I argue that our concepts of creativity have operated as one of the key mechanisms for neoliberal seduction, particularly within the world of education. As several researchers have noted, “creativity” is a term that has come to hold particularly close associations with neoliberalism, especially around the idealization of the individual at the expense of the social, as a mechanism for the transformation of labor into “human capital,” and as a camouflage for the rise of austerity policies. This history leaves us with the question of whether not concepts of creativity can help restore “the ruins” they have helped to create. Are these concepts so irredeemably compromised that they need to be abandoned, or could they be remade to carry different associations? And if so, with what? I focus on the need to redefine creativity in two key ways: first, as a practice of social relations (and not as the foremost exercise of individualism, self-expression, and self-fulfillment); and second, as a mechanism through which educational institutions might counter what Brown describes as the relentless nihilism of our current social moment. In particular, I will discuss how the restructuring of arts education – with its potential to teach students symbolic worldmaking, ethical exploration in both the thematic sense and in the collaborative process, and the capacity to work with ambiguity, uncertainty, complexity, and nuance — has the ability to enrich the social sphere. But these contributions are only possible if artists themselves recalibrate the long association between creativity and the individual. This process would involve a reconsideration of the potential creativity has to

advance not just self-identity, self-expression, and self-fulfillment, but its capacity to build ethical social formations.

An alternating attention-driven theory of creativity: A sensory-processing approach for Higher Education

Rocco Acocella

The Edward de Bono Institute for Creative Thinking & Innovation

A substantial level of distraction not only has contributed to developing a societal inability to concentrate, but it is also leading our attention span to decrease time by time. This article advances a summary of the Alternating Attention-Driven Theory of Creativity. The core aim is introducing the concept of alternating attention-driven creativity which can be defined as the creative attentive performance enabled by merging sensory information-guided (the input) with goal-directed tasks (the process) through the aid of flexible cross-network interactions (the mediator). At the beginning, the article provides a brief introduction of attention as a cognitive phenomenon, its characteristics and its exogenous-endogenous polarisation. Subsequently, it gives an overview of the reasoning leading on to designing the Alternating Attention-Driven Model of Creativity (AA-D / MC). The model is composed of the following three main components: (a) The Input - embodied by the default-mode network's (DMN) cognitive processes mental imagery, autobiographical memory and mind wandering; (b) The Mediator - embodied by the salience network's (SN) cognitive processes cross-network interactivity, temporal and cognitive flexibility and spatiotemporal diversity; (c) The Process - embodied by the central-executive network's (CEN) cognitive processes working memory, relational integration and alternating attention. In the end, practical relevance of the proposed theory and its sensory-processing approach will be further discussed in terms of direct application within higher education.

Becoming a poetics of possibilities. Using art interpretations to reverse-engineer the creative act and mind

Nicole Derikx

House of Art and Agency

[...] it is an equally apt means of directing our attention to the essential alchemy of art, which is to make what is not out of what is, and to make what is out of what is not --**Alfred Gell**
The Technology of Enchantment and the Enchantment of Technology (1992, p. 53)

I ask you to take the dream as an abstract painting, to look at it as pure form and motion --**Rollo May**
The Courage to Create (1975)

Poetics [Gr. poiësis, "making"] refers to the becoming of what did not exist before. The blooming of the blossom for Heidegger, a two-way process for Bachelard, resisting the oscillating tension between tricky dichotomies as subject and object, mind and matter, active and passive, as imagination is simultaneously receptive and creative. The two are inextricable, just as making and interpreting art require receptivity and creativeness parallel. Creativity is the brain's showpiece, as the most important capacity also the most difficult to assess, just as works of art are the most complex and mysterious artifacts to fathom. Doing art, the brain is running full speed, hitting on all 8 cylinders, so being able to figure out what happens to the brain on art immediately provides a lot of information about the brain's functioning. Also, the field of creativity studies is currently best served by fundamental research and a wider set of tools (and stimuli) --else how do we know what we know about creativity?

Because it helps to better understand the phenomenon by examining how it works, this call, to empirically examine the underlying mechanisms of creativity specifically based on works of art. Abduction, a practical reasoning tool working in reverse from effect to cause, plus a combined set of heuristic methods (e.g., Bayesian inference, grounded theory, performance philosophy), could in turn expand theorizing and knowledge about creativity. To arrive at performance specifications in empirical assessments of transformational capacities, potentially operationalizable parameters were filtered from various

frameworks and branches of aesthetics, anthropology, evolutionary biology, film and literary studies, physics, psychology, and philosophy, from Aristotle to Žižek, among others, overlapping with and complementary to models representing the theory of creativity. In particular, abracadabra, agency (“doing”), bribes, broken symmetry, criticality, contraband, inspiration, interpretation, intuition, possibilities, transformation, and, perhaps amazingly, “taste and tackiness,” surfaced first.

COVID-19 and what might have been: Counterfactual thinking during a global crisis

Nuala Walsh

*Mary Immaculate College
University of Limerick*

Suzanne M. Egan

*Mary Immaculate College
University of Limerick*

Counterfactual thinking is the ability to think hypothetically about what might have been and is a regular and spontaneous part of everyday thinking, particularly following the experience of a negative event or an unfulfilled goal (Byrne, 2016). However, little is known of the process of counterfactual thought generation in response to the COVID-19 pandemic. The present research aims to address this gap in the research literature by exploring the various types of counterfactual thoughts generated in response to the global crisis. As part of this online study, participants were asked to recall and describe their positive and negative experiences of the pandemic, and then to consider the ways in which these experiences could possibly have been better or worse, and why they had these thoughts. A qualitative approach involving theoretical reflexive thematic analysis was used to analyse participant responses. Utilising the six stages of coding and theme development outlined by Braun and Clarke (2006; 2020) several latent themes were generated. While some people thought about how things could have been worse during the pandemic by imagining a possible COVID-19 related scenario that did not occur (i.e., an imagined possible negative event), others described actually experiencing a negative event but imagined how it could have been possibly even worse than it actually was (i.e., an imagined worse negative outcome). In contrast, others focused on how things could have been better and described re-evaluating or improving a previous negative aspect of their life. Thinking about how things could have been better with a focus on the self or others, and other external agencies such as the health service or government, were also explored along with the positive and negative affects experienced as a result. This research offers insight into how individuals interpret their lived experience of the COVID-19 pandemic through the process of counterfactual thinking, and how these experiences could have been better or worse. The implications of these findings are discussed in relation to the functional theory of counterfactual thinking (Epstude & Roese, 2008) and for adaptive coping responses to a global pandemic.

“Where are we going?” Irish Traveller men imagining a traveller utopia

Paul Walsh

*School of Applied Psychology,
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Angela Veale

*School of Applied Psychology,
University College Cork*

Irish Travellers were officially recognised as an indigenous ethnic minority in 2017, which was hailed by representatives of the Traveller community as an important symbolic and positive step in acknowledging the uniqueness of Traveller identity. Yet to the present day, Irish Travellers continue to experience inequalities in health, housing, employment and mortality when compared to the general population. This research was undertaken to explore Traveller men’s imaginings of the future both for themselves and collectively, for their community. Six Irish Traveller men were interviewed, ranging in ages from 23 years to 65 years. All interviews took place at the halting sites of the participants in the South East of Ireland. Data was analysed using thematic analysis (Braun and Clarke, 2012) and drew on Zittoun & Gillespie’s (2015) concept of the imaginative loop. Master themes that organised the data included School days are over; The creation of a Traveller hero; The rocky road to a Traveller utopia and Liminality and imagination. A picture emerged of how, based upon personal experiences of past and present events as a Traveller man in Irish society, participants experienced challenges in their imagining of a positive future. The implications of this exploratory study are briefly discussed.

Possible worlds. Something more than mere existence

Pier Paolo Bellini

Università del Molise (ITA)

There is no experience without expectation: this datum of the human condition is at the root of an irreducible and constant tendency to transcend the present state of affairs. Various sociological inquiries and theories (in collaboration and sometimes in contrast with other disciplines) have investigated the subjective and social consequences of this phenomenon: thus, its root has been identified in the dynamism of "aspirations," delving into both its "pre-reflective" and sociocultural aspects. On the first side, it was thus arrived at establishing (in an ideal line of authors ranging from Merleau-Ponty to Franco Crespi to Hans Joas) that creative action is made possible by "pre-reflective aspirations" deposited in the body itself, or rather in the development of "relations between bodies." On the second side, however, the process through which the sociocultural context comes to interact with the structural dynamism of aspiration has been investigated, establishing that the imagined alternative reality is always "situated," taking shape in culture, providing for complex and even fortuitous constraints of "accessibility" to knowledge and its tools: psychoanalysis speaks promisingly of an "inner group," an "us" deposited in the subject interacting with his or her living environment. A third element has long been fielded in the study of creative processes and imaginative capacity: the concept of man's constitutive "eccentricity," which differentiates him from animals and projects him beyond the natural "given." Creativity would in this case be the most effective way to delineate what is beyond the limit, what does not yet exist. Artistic languages would, in this perspective, be the communicative forms least inadequate to this "approximation" to that "something more than mere existence" (to put it à la Adorno), something more than "the orders of the world to which humans are hopelessly bound." A case study of the production of the writer group Boa Mistura in the favelas of São Paulo, Brazil, is analyzed as exemplifying narrative and artistic visions of possible worlds and as forms of communication and creative cultural practices: in their activity, aspects related to the drive of subjective aspirations, the influence of sociocultural constraints and their overcoming take aesthetic form and communicative effectiveness. The experience described is also valid

attestation of a final aspect of the "visionary" potential of creative production: its collective dimension. For some sociologists (in different eras), being part of a "world of others" implies the fact that the sphere of "We" is "naively presupposed": in an ideal line from Schütz to Duvignaud to Joas, "primary sociality," "Weness" underlies all human capacity for action, particularly creative action. Several psychological and psychoanalytic approaches, on the other hand, speak of creative action as "challenging the separation between the self and the other."

Comparing algorithmic & human curation at the algorithmic pedestal exhibit

Laura Herman

University of Oxford/Adobe

Artists have long been at the forefront of adopting emerging forms of technology. The past year alone has seen hype cycles of NFTs and Web3-related art, art produced within and for the “metaverse,” and—most recently—artists leveraging generative AI tools. The quick successive releases of AI-based models like DALL-E2, Stable Diffusion, and Midjourney have led to fever-pitched speculation about the future of art in the face of automation. Meanwhile, technology companies have been quick to integrate these generative models within their extant tools, roundly claiming that “now, anyone can be an artist.” This hype cycle, like many before it in the art world, will soon quiet down. What will remain, however, are the entrenched effects of algorithmic platforms on artistic culture. Though these platforms similarly rely on AI, they are not generative—that is, they are not creating art. Instead, they are making decisions about art, such as who sees what when, which may have an even larger impact on visual culture. Indeed, many artists are experiencing increasing pressure to succumb to algorithmic preferences. For example, once artists become aware that platforms will show their work to a wider audience if they post more often, use brighter colours, or include faces in their artworks, they may gradually begin to pander to these algorithmic tastes (Herman, 2022). In this way, algorithmic platforms become the gallerists or museum curators of yore, dictating which pieces are seen by an audience— and the very content and aesthetics of the pieces being created. To question this algorithmically-shaped culture, I take a practice-based research approach, resulting in an exhibit that compares human curation by an artist with machine curation by an algorithm. Drawing on the Metropolitan Museum of Art’s open access collection, artist Fabienne Hess and Instagram’s algorithm curated a selection of images for the exhibit. Sorting through thousands of images, they each chose a collection of images to display in a particular order and layout. This exhibit produced a gallery experience in which creatives were invited to reflect on algorithmic platforms’ influence on their work through one-on-one interviews. Simultaneously, exhibit visitors were surveyed on the experiential differences between algorithmic and human curation. Many of these algorithmic platforms,

such as social media platforms like Instagram, were not created with the intention of artistic display. They have very different goals: enabling connection between friends, selling ads, gaining attention, serving as a marketplace, and so on. This means that the underlying formulas according to which they operate (that is, the algorithms) are not tuned to artistic considerations of aesthetics, beauty, novelty, or even creativity. We are outsourcing decisions about our visual culture to an inanimate machine with very different ways of seeing without pausing to consider the audience impact. The resulting data from my exhibit, *The Algorithmic Pedestal*, seeks to address this urgent question. I look forward to sharing the results of my interviews with artists reflecting on the impact of algorithmic curation, as well as the results of a questionnaire completed by hundreds of exhibit visitors.

Creative agency at the interface between cognitive systems, the world, and future

Markus F. Peschl

University of Vienna

Department of Philosophy & Vienna Cognitive Science Hub

What are the sources of creativity, knowledge creation, and innovation? This paper proposes to conceive of these processes as socio-epistemic activities that occur when a cognitive system or a group of cognitive systems interact with their material and social environment, resulting in the creation of artifacts and/or practices. The paper also explores the concept of a future-oriented approach to generating novel and sustainable knowledge/innovations on the basis of future potentials/possibilities, both on an individual and collective/organizational level. When examining and questioning traditional approaches to creativity and innovation, we will adopt concepts based on the enactivist approach to cognition, such as De Jaegher's (2007, 2021) participatory sense-making or engaged epistemology, and Malafouris' (2013) Material Engagement Theory. Taking these concepts further, they suggest that a cognitive/creative agent, whether individual or group, does not primarily aim to impose their preconceived ideas or knowledge onto the world or matter during the creative process. Instead, they engage in a process of "creative thinging" (Malafouris 2014) by actively interacting with the world, making sense of it, and co-creating artifacts (in the broadest sense) or "things". Through this process, they tap into not yet realized unfolding (future) potentials and "learn from the future as it emerges" (Scharmer 2016), resulting in the emergence of novelty; the becoming of reality turns into a source for novelty/novel knowledge. This turns the classic (mostly hylomorphic) understanding of creativity and knowledge creation on its head, as „creative agency” is—at least in part—shifted from the creator's mind to the environment and to interacting/engaging with the world. As a consequence, (epistemic) control has to be given up (or at least reduced) in favor of openness to the affordances and potentials of a world in becoming. Creative activities have to be conceived as processes of co-becoming, undergoing, and correspondence with the world (e.g., Ingold, 2013, 2014). In this context, the notion of resonance (e.g., Rosa, 2019; Susen, 2020) introduces an aspect of both future-orientedness and sustainable development as the involved systems

co-create their future in the form of mutually beneficial environments and niches. This paper will discuss theoretical issues as well as (practical and educational) consequences of such a perspective in terms of necessary alternative cognitive skills, mindsets/attitudes, and enablers, such as developing a sense for potentials, openness, „epistemic humility“, or creating enabling environmental (infra-)structures, etc.

Precrime, Neuroprediction and the AI Minority Report: Ethical, legal and societal considerations of using brain data to predict who will commit a future crime

Lorraine Boran

Dublin City University

In the movie *Minority Report*, three clairvoyant siblings (PreCogs) experience a similar vision of the future when someone is about to commit a crime - the guilty mind (*mens rea*) is penalised without ever committing a guilty act (*actus reus*). The PreCogs' vision predicts who (offender, victim), what (*actus reus*) and where (crime context) the prohibited act will occur. Contrary to most common law jurisdictions, the aggregated PreCog vision satisfies a legal threshold to arrest and detain the offender - without ever having committed a crime! But what if this is not quite science fiction? What if brain AI prediction models are sophisticated enough to act like those clairvoyant siblings and predict future violence [1], rearrest [2] and detention [3] because of dangerousness to society [4]. Do we have a failsafe *Minority Report*, or that alternative vision of another possibility - where the person does not commit a crime? Will it too be deleted if it makes the public mistrust neuroprediction and crime control? We are at the point that neurorights should be enshrined within our legal systems to protect against the abuse of neurotechnologies that can predict crime and punish before it actually happens [5]. Neuroprediction can also be used to erode our cognitive privacy - lie detection during interrogation, or to subpoena the brain when you remain silent [6]. Precrime and Neuroprediction could fundamentally change how we deter, punish, and rehabilitate criminal behaviour within our justice systems.

*Monday, Paper Presentations, Session 3, 10:30 - 12:00
Room Wonder (AHC.SG11)*

Framing silence as a room for the possible. Insights from Cultural psychology

Olga Lehmann

University of Stavanger

In this presentation I will draw into the theoretical and empirical investigations that I have carried out for over 10 years, following my curiosity about what silence is, what it is not, and what it can inform us about emotions and meaning. I will also describe silence as a room for the possible, and demystify the possible reasons we pursue it, we idealize it, we avoid it, or we impose it to one another.

Controlling the narrative of material agency: How do artists attribute causation?

Jennifer Ruth Hoyden

Teachers College, Columbia University

Art education scholarship has been expanding its focus on materials and the experience many artists report of feeling that material is a partner and influence in their arts practice. Some artists publicly encourage others to be more receptive to materials' directions. This has led to an intuitive leap that it would be beneficial to make art students more conscious of materials as agentive. Meanwhile psychology research has established the significant self-regulating benefits of experiencing personal agency, with effects on important aspects of learning. This raises the question, what are the possible effects of recognizing material agency on artists' sense of agency, and what implications for education can we draw from this? Based on interviews that capture artists' own constructed narrative around their arts practice, I have been exploring how and when artists assign agency to materials versus to themselves. Presenting from this ongoing investigation, I will report on my early observations on artists' attribution of agency to materials, and specifically whether it is constant across perceived success and failure in their art-making process. Importantly, I am working towards determining whether detecting material agency is a universal skill to be taught or a strategy to be used sometimes to support artistic breakthroughs.

Theoretical creativity & deep divergence

Kevin Molesworth

Buffalo State College (USA)

Master's Program: Creativity and Change Leadership

"A society grows great when old men plant trees whose shade they know they shall never sit in."
~ Greek Proverb

In early 2021 I formulated the concept of "theoretical creativity." If "applied creativity" is the coin's obverse, then "theoretical creativity" is the reverse side of that same coin. Similar to the oppositional relationship between applied physics and theoretical physics, where the former is rooted in the basic concepts of physical sciences and the intersection of known principles of practical devices and systems (e.g., engineering, technology, etc.) and the latter, in stark contrast, employs hypothetical models and abstractions to predict natural phenomena and behavior rather than the study of extant knowledge and its application, "applied creativity" and "theoretical creativity" are diametric. Borrowing from the definition of theoretical physics, "theoretical creativity" must also employ hypothetical concepts and abstractions rather than any existing knowledge, understanding, or experience. I assert that this can be achieved by exploring the deepest depths of divergent thinking. In the late 1480s, da Vinci designed a flying device that he dubbed the "aerial screw." This rotor-based flying device was essentially the precursor to our modern-day helicopter, which would not be a viable and practical invention until some 450 years later. Though there is no evidence that da Vinci ever constructed a physical version of his design, contemporary aerospace engineers that have studied his drawings have concluded that the aerial screw would fly. This is the essence of theoretical creativity. If applied creativity is "novel and useful," theoretical creativity could be described as "novel and not yet useful." To see so far into the future requires a mind capable of "deep divergence". The term "deep divergence" is a construct of my mind as one that tends to understand concepts from a visual perspective. I proffer a different semantic approach to what de Bono described as "lateral thinking," something I imagine as a journey on a horizontal plane. Whereas the word lateral is defined as "of, at, toward, or from the side or sides," I picture deep divergence as a black hole, the depth of which knows no bounds. So the question is, how far can the human brain go in its

divergence? I assert that divergent thinking is infinite. The primary reasoning supporting my position can be explained when one considers the function of convergent thinking: to identify a single, well-defined solution (or a finite set of solutions) to a question, problem, or challenge. Therefore, if convergent and divergent thinking work in opposition, the latter must be infinite. Still, the question remains, is the human brain capable of identifying an endless number of solutions, or does that reside solely in the domain of artificial intelligence and the future of quantum computing? I posit that the human brain, one that lives inside the skull of an individual trained adequately in creativity, can diverge infinitely in search of novel solutions. I aim to demonstrate that and the requisite techniques for doing so in my presentation.

Possible pathways to reformulating one's creative identity

Oana Velcu-Laitinen
Independent Researcher

To what extent do creators of all kinds - artistic and non-artistic, established or aspiring - recognize and act upon the multidimensionality of their creativity? Differently said, upon new insights into one's creativity, what factors need to be in place so individuals start to actively seek opportunities that make them feel they are the right creative persons involved in the right tasks? This paper looks through the life-span developmental perspective combined with the socio-cultural lens at how Pro-c professionals in non-artistic occupations develop their identities as creators. Identity is multiple and fluid over time, with moments of proactivity intertwined with the influence coming from interpersonal interactions, physical environment and economic and societal events. Therefore, the main purpose of this paper is to establish the basis of a theoretical framework on the intrapersonal factors that enable Pro-c experts in non-artistic domains to internalise the belief that creativity is more than artistic talent. To this view, we interviewed professionals with self-determination and unexplored creative potential - creative thinking, creative personality, interests and goals. We argue that insights into a new meaningful dimension of self-perceived creativity lead to creative action depending on one's existing work orientation. People who are emotionally committed to a career, cause or calling are more inclined to explore the societal space of occupational roles that provide the basis on which the creative identity is reformulated.

Researching (and teaching for) transdisciplinary creativities: what posthuman new-materialist enquiry makes possible

Pamela Burnard

University of Cambridge

Posthuman new-materialist enquiry decenters the human and invites thinking-with Karen Barad's (2007) entangled and co-constituting, entwined and intra-active relational concept of 'spacetime-mattering' and Donna Haraway's (2016) concept of 'worlding', with objects making them less ordinary. Together with other materialist posthumanist feminists such as Rosi Braidotti (2002), whose plea for meeting the posthuman challenge through becoming-with transdisciplinarity and Jane Bennett's (2010) 'thing-power', I argue that researching and teaching for transdisciplinary creativities makes possible future-making education. This assemblage of posthumanist new-materialist perspectives offers possibilities for illuminating a new relationality between materiality and how material forces are constituted in the generative meetings between all bodies, human and nonhuman and more-than-human. All have the capacity to affect and be affected by/through/with the material ways that constitute a diversity of transdisciplinary creativities. Using diffractive analyses I will share diverse enactments of transdisciplinary creativities that emerge from the material and embodied operationalising of the key concept of 'thing-power', a vital and performative new materialism, first introduced in the work of Jane Bennett (2010, p.5). She describes this phenomenon as the capacity material objects have to make things happen, and to exist in excess of their human meaning and allocated purpose. Material things can come together in a 'contingent tableau' with unpredictable consequences. I will argue for a re-seeing of the educational space beyond the delivery of pre-defined outcomes to reveal itself both as crafting and crafted by the distributed agentic work and authorings of transdisciplinarity. At the same time, I move the concept of transdisciplinary creativities in correspondingly more-than-human directions, which raises the issue of how to operationalise 'thing-power' as a central and critical tenet in educating for diverse transdisciplinary creativities. The study, conducted over a decade, combines a cartography of diffractive analyses from video recordings,

photographs, drawings, fieldnotes, and interviews with real-world artists, practitioners, students and teachers.

Monday, 13:00 - 13:45
Room Possible (AHC.SG05)

Keynote Address

Problem construction and the possible

Roni Reiter-Palmon

University of Nebraska at Omaha (UNO)

Problem construction (or problem finding, problem identification) is commonly seen as the first step in creative problem solving. Problem construction consists of two main aspects. The first aspect focuses on the identification of problems in ambiguous situations. The second aspect of problem construction focuses on the structure and description of a problem in order to then develop a solution. In this presentation, I will discuss the relationship between problem construction as creative problem-solving process and the possible.

Biography

Dr. Roni Reiter-Palmon is a Distinguished Professor of Industrial/Organizational (I/O) Psychology and the Director of the I/O Psychology Graduate Program at the University of Nebraska at Omaha (UNO). She is also the Director of Innovation for the Center for Collaboration Science, an inter-disciplinary program at UNO. She received her Ph.D. in I/O Psychology from George Mason University, Fairfax, Virginia. Her research focuses on creativity and innovation in the workplace, cognitive processes of creativity, team creativity, development of teamwork and creative problem-solving skills, and leading creative individuals and teams. Her research has been published in leading journals such as *Journal of Applied Psychology*, *Creativity Research Journal*, *The Psychology of Aesthetics, Creativity and the Arts*, *Human Resources Management Review*, and *Leadership Quarterly*. She is the former editor of *The Psychology of Creativity, Aesthetics and the Arts* and the current editor of *Organizational Psychology Research*. She is an associate editor for the *European Journal of Work and Organizational Psychology* and *Creativity Research Journal*. She serves on the editorial boards of *Journal of Organizational Behavior*, *Journal of Creativity*, *Journal of Occupational and Organizational Psychology*, *The Leadership Quarterly*, *Journal of Business and Psychology*, *Journal of Creative Behavior*, and *The Psychology of Creativity, Aesthetics and the Arts*. She has published four edited books on the topic of creativity, and is the editor of the book series "Creativity and Innovation in Organizations" published by Palgrave. She has obtained over 8 million dollars in grant and contract funding from government and businesses focusing on creativity, leadership, and teams. She is the president elect of Division 10 of the American Psychological Association (creativity). She is a fellow of Divisions 10 and 14 (creativity and SIOP) of APA, and has won the system wide research award from the University of Nebraska system in 2017.

Monday, 13:45 - 14:30
Room Possible (AHC.SG05)

The Creative Ireland Programme – Where it came from, where it is going

Michael O'Reilly
Creative Ireland

Sheila Deegan
Creative Ireland

Michael O'Reilly and Sheila Deegan will tell the story of how Creative Ireland came into being, both conceptually and operationally. They will explain its purpose and place in terms of policy delivery and community activation, as well as its future vision - with a particular focus on three aspects: its role as an all-of-government initiative, its place in formal and informal education, and its mission as an activator of cultural engagement at community level.

Symposium

Creativity and technology: exploring new possibilities with our minds and bodies

Alla Gubenko
University of Luxembourg
(organiser)

Claude Houssemand
University of Luxembourg
(organiser)

Technology has many roles to play in human cognition. As new forms of artificial creative aids gain momentum and become accessible, it is time to ponder on the relationship between humans and technology and explore the affordances of new technology with respect to the human creative process and learning. How can new technology augment or hinder human creativity? How could we use new technological tools as a medium for artistic expression? What are the consequences of extensive overreliance on technology? This symposium aims to critically reflect on the impact of new technologies on our minds and bodies and outline ways we can be creative with artificial tools and build a healthy technological partnership.

Talk 1. Interactive music educational technologies: promoting musical creativity through movement and visuals

Luc Nijs

University of Luxembourg

Schools too often undermine creativity, said Ken Robinson, the educationalist who has changed thinking on schools. In his famous TED talk “Do schools kill creativity?”, he argues that the undermining of creativity results from being too focused on children’s heads rather than on their bodies. In line with Robinson’s observation, music education has been criticised for a lack of creative approaches, and a focus on disembodied learning experiences. In this theoretical paper, I first argue that the development of creative and embodied approaches to music education needs a deeper understanding of the embodied processes that underlie creativity, especially with regard to the use of the body in music learning. While several music educators have implemented the body and body movement in their music educational approaches, and while a body of literature has addressed the benefit of using music to develop musical understanding and expressiveness, far less has been written and investigated

about how body movement may spur musical creativity. Using a dynamic, relational, and action-oriented perspective on creativity, I present a novel approach to the conceptualization of musical creativity, connecting the creative interaction with music to the concepts of affordance navigation, metastability and cognitive flexibility. Next, I elaborate on how body movement may support creatively exploring the musical environment and developing a deepened musical understanding through purposeful affordance navigation. Finally, I discuss how interactive technology may help fostering this approach to creativity through a multimodal approach.

Talk 2. Behavioural learning analytics for the assessment of divergent thinking in human robot interaction

Margarida Romero

Université Côte d'Azur

The advent of powerful AI-based tools has revolutionized the creative realm, offering novel resources and platforms for artistic expression while transforming the way art is created and experienced. This experimental study aims to investigate the changes in creativity scores among students who passively observed art works (n=19) compared to those who actively engaged in an interactive AI-based art project (n=18). In this study, the control group was instructed to view slideshow, which featured a collection of various art pieces, while the treatment group participants were invited to upload their photos and transform them using a deep neural network through a dedicated website. In order to create interactive experience for the treatment group, we utilized Neural Style Transfer technology (NST), which involves transferring the style of one image to the content of another. By applying NST to the art images, we were able to create a more immersive creative experience for the treatment group participants. This study hypothesizes that the subjective experience of being physically engaged or virtually present within the artwork, has the potential to stimulate divergent thinking and augment creativity in students in comparison to passive contemplation of art.

Talk 3. DIY making strategies as a method of resistance against technological pain and creative deskilling

Alla Gubenko, *University of Luxembourg*

Dasha Ilina, *Center for Technological Pain*

Recently a variety of new creativity support tools (e.g., Midjourney, DALL·E 2, Stable Diffusion) has been launched, making the creative process increasingly accessible. Technology-mediated creative activity becomes more and more linguistically loaded and removed from materiality i.e., not requiring any physical interaction with artistic materials, tools, or media. This paper discusses the impact and cognitive consequences of digital technologies on our creative minds and bodies. We present projects led by artist Dasha Ilna and propose tinkering as a self-defence method against technological pains and creative deskilling.

When astronauts lose hope - exploring the possibilities of darkness in children's imagination and narrative

Trudy Meehan

*Centre for Positive Health Sciences, Royal College of Surgeons
University of Medicine and Health Sciences*

This is an ethnographic study, mostly autoethnographic, examining the experience of looking for and trying to develop cultural tools to support a child bereaved by suicide. The study narrows its focus to children's books. It examines the possibilities of imagination and narrative that can be engaged in through reading, being read to and looking at images in a children's picture book. While uncovering the possibilities, it also interrogates the cultural taboos and resistances to using play, imagination and narrative when working with children in educating and or supporting them through adverse childhood events. The author takes a narrative therapeutic and social constructionist view of stories. Human beings are constituted by stories and use stories to construct themselves socially in relation to others. Stories support agency and develop meaning and coherence. The study argues that children's books, when written to include stories of loss, darkness and troubling topics can make it possible for children to negotiate cultural spaces where they feel they belong and are recognised. The possibility is also scaffolded to have a conceptual and emotional framework for understanding what has happened and in so doing, start to narrate their own individual story and with that imagine an emerging story that is not purely dominated by the problem saturated story of their loss.

Multispecies flourishing in the time of the reaper

Heather Alberro

Nottingham Trent University

The presently hegemonic system that is global capitalism, as hegemonic systems do, creates an illusion of necessity and immutability, dismissing anything beyond its bleak borders as ludicrous fancy (Klein 2020). Yet, as the climate crisis continues to intensify and the sixth mass extinction gathers momentum, it's crucial to remember that this historically specific human construct is far from 'natural' or inevitable. Alternatives continue to, indeed always, abound in the form of the millions of indigenous peoples around the world fighting more land and life, in the fragmented visions of better worlds embodied by environmental movements, and in the glimmers of multispecies futures offered in ecotopian texts such as the ecotopian novel *The Fifth Sacred Thing* (1993) by American author, activist and ecofeminist Starhawk. The paper offers a brief, critical-posthuman analysis of Starhawk's novel, which depicts a precarious ecotopian enclave in San Francisco, California in 2048, whose inhabitants must continually contend with- and collectively reap- the consequences of ecological neglect sown by previous generations. Here the essential foundations of life- the water, air, earth- are thus deemed 'sacred', and inspired by indigenous ontological and ethical modalities, other-than-human entities are regarded as agentic kin worthy of protection rather than as inert resources for human ends. The novel is a powerful reminder of the enduring possibilities of any given reality which, however fraught with cataclysms and uncertainties, retains its hope precisely in the uncertain terrain ahead that always resists foreclosure. As Solnit reminds us, a better, multispecies-just future is always possible, but never guaranteed. Through collective action we can cultivate the possible.

Transformative, transgressive, transdisciplinary and together: Elaborating the nature of learning in co-constructing possible transformations to sustainability

Heila Lotz-Sisitka
Rhodes University

The need for more radical forms of learning-centred transformation is increasingly recognized in transformations to sustainability discourse. There have been various calls for further insight into the nature of transformative learning in a transformations to sustainability context, as well as how such learning emerges or can be expanded to strengthen collective agency for sustainability transformations at multi-levels and in situations of complexity and vulnerability. In elaborating on the nature of transformative learning in transformations to sustainability, this paper offers differentiations between transformative learning, transgressive learning and transdisciplinary learning, since these are often conflated under the general notion of ‘transformative learning’. The paper is constructed as a critical realist ‘theory mining’ review (Okoli, 2015) which offers a deepening of the object of study (namely the nature of transformative learning in transformations to sustainability) via progressively focused meta-analytical synthesis review at A: field-based literature (a review of research on transformative learning), B: theoretical and conceptual development (teasing out the relations between transformative, transgressive, transdisciplinary forms of learning and transformations to sustainability) to contend for a theory, and C: testing of this emergent theory with approximately 40+ intense and in-depth empirical studies of co-engaged T-learning processes in co-engaged community learning contexts. By T-learning I mean learning processes that were oriented towards transformation, transgression, transdisciplinarity and collective agency and co-creation of possibilities for transformations to sustainability. The bulk of the review draws from work undertaken in a nine country International Science Council funded ‘T-learning in times of climate change’ research programme which took place across four continents between 2016 and 2022 (extended period). The review also draws on findings on similar intensive T-learning case studies research undertaken in Rhodes University’s SARChI Chair in Global

Change and Social Learning Systems in South Africa (which led the T-learning project) and other synthesis studies of relevance to the core object of study. The methodology of this paper is constituted as a form of extensive research (Sayer, 2011) which seeks to identify regularities, common patterns and distinguishing features of a research object. In this paper I am seeking to elaborate the nature of transformative learning in co-creating possibilities in transformations to sustainability as indicated above. According to Sayer (2011) extensive research of this nature offers an account of ‘descriptive representative generalisations’ that may lack explanatory penetration, as in systematic reviews or large scale surveys. However, the extensive research in this paper is grounded in object-specific synthesis reviews and case study work generated in a large scale research programme (as outlined above) which is where the explanatory penetration arises; i.e. it is not just a broad literature review or typical synthesis review that seeks insight into a research object by reviewing existing publications on a topic, it is rather seeking to surface or make visible theoretical perspectives that are embedded in a body of theoretical, empirical and literature review work that emerged in response to a specific research problem.

Qualities of the queer imagination: Animating the pedagogical promise of queer creativity and potentiality

Matthew Isherwood
University of Exeter

Can imagination be queer? Deceptively uncomplicated, this question refuses a straight answer. In search of understanding, this paper looks to the work of several queer artists as potentially emancipatory sites of learning that engender aesthetic consideration and the contemplation of alternatives. It lays out qualities of what might be considered a queer imaginary capable of making sensible alternative fantasies, desires, and bodily relations. It considers how this reimagining of the social can allow new ways of thinking and understanding ourselves and others to emerge through the contradictory aesthetic, emotional, and affective meaning such artworks generate. Thus, by focusing on the imaginative practices of queer artists, the paper positions the inherent possibility of queer creativity as the means to reconfigure harmful and exclusionary ideologies and social practices. This paper would benefit educators interested in the promise and potential of aesthetic theory as a way to enhance more traditional educational frameworks—especially those interested in alternative queer-positive strategies that prioritize the experience of queer students. By taking up an aesthetic context, the paper calls for a rethinking and re-evaluating of how social justice topics are taught and what should be considered educationally important when speaking and discussing the lives of minority subjects. Although the paper is qualitative and exploratory, it also lays the foundation for concrete implications and the possibility of taking aesthetic consideration seriously in a school setting.

Envisioning possibilities: Inquiry-based learning for gifted and talented children

Alexandra Vuyk

*Aikumby Center for Giftedness and Creativity
Universidad Católica Nuestra Señora de la Asunción*

The traditional approach to education can be limiting, with a singular focus on finding the correct answer given by the teacher, especially in developing countries with limited learning environments. Unfortunately, in Paraguay, the educational system tends to be more traditional than innovative. However, gifted and talented children are natural critical thinkers who benefit from an inquiry-based learning approach that values exploring multiple answers and asking thoughtful questions. To address this, we developed an after-school enrichment program exclusively for gifted and talented children to encourage their curiosity and creative thinking. Through our program, participants had the chance to envision alternative futures and explore topics that interested them, such as giftedness, identity development, astronomy, geography, geopolitics, and algorithmics. The program comprised a two-hour weekly class led by a facilitator and a team of expert lecturers, while the students tracked their progress throughout the year. One of the significant milestones was the Project Fair, where each student conducted a research project and presented their findings. They were encouraged to ask questions, explore alternative solutions, engage with possibilities, and challenge the status quo. Participants were exposed to experiential learning and community involvement, which we found to be critical to talent development. By providing students with opportunities to explore multiple answers and continuous questioning, they could develop their creativity and critical thinking skills. In qualitative program evaluations with children, families and teachers, we saw an impact on participants' education, well-being, and social belonging in a group of intellectual peers. In conclusion, our inquiry-based learning program for gifted children in Paraguay showed the importance of providing students with opportunities to ask questions, explore multiple answers, and challenge traditional thinking. By enabling them to envision alternative futures and engage with possibilities, we can help cultivate the essential skills of creativity and critical thinking. We hope that our experience will inspire others to

replicate such programs and encourage the development of innovative educational systems that can change our future.

Rethinking an undergraduate psychology assessment to make it ‘more real’: Adopting an open pedagogical approach where students communicate knowledge to the public

James Brunton
Dublin City University

Megan Gaffney
Dublin City University

This study reports on the development and implementation of an open pedagogy assignment in an undergraduate developmental and educational psychology module. This module is part of an open, online undergraduate psychology programme in an Irish Higher Education Institution (HEI). Following the open pedagogy principle of empowering students to create and share useful information (DeRosa and Robison, 2017), the module team enhanced the assessment design such that its final assignment transformed from being an applied assignment in which students produced a ‘mock’ report for schools that was marked but not shared outside of the module, to one where they produce a communication to the public that was openly shared through a blog. Students are initially asked to develop a literature review on an identified topic. Secondly, students are asked to create a communication, in the form of a digital information pamphlet, poster, or an infographic, that can be shared with the public, for example, advising schools and educators on how to improve adolescent mental health and wellbeing. At the point of submission, students had the option to grant permission for the team to publically share these communications. A qualitative case study grounded in the constructivist paradigm was designed, with this research question: What are students’ perceptions of producing knowledge that is shared openly? Data was collected in three recorded, online focus groups over three academic years. Data was transcribed, prepared, and analysed in NVivo using a data-led analytical approach following Braun and Clarke’s (2006) six phases of thematic analysis, which involve a number of iterative steps: coding; generating candidate themes; reviewing and refining themes; assessing for internal homogeneity and external heterogeneity; and generating an overall thematic structure. Our findings indicate that the new assignment was viewed as a good idea, as ‘more real’, while also being viewed as challenging in terms of: the skills needed to

produce a digital pamphlet or infographic; and the way in which the assignment made them stop and ask 'who is the public' to whom this information will go? The prospect of openly sharing their work had an impact on how the participants thought about how they produced the information in their work, and in how they thought about their responsibility for it once it was shared with the public.

Developing a divergent persona

Kevin Molesworth

*Buffalo State College, Center for Applied Imagination
Master's Degree Program in Creativity & Change Leadership*

This session will describe how an individual can create a divergent persona to enhance the productivity of brainstorming sessions. Furthermore, the methods for implementing divergent personas into a group or organization will be detailed. The techniques I will be sharing will have the potential to vastly extend the boundaries of each attendee's divergent thinking abilities and productivity. Three Key Takeaways: · Attendees will learn how to CREATE a divergent persona to contend with any shortcomings within the creative climate of a given group and the ability of individuals within the group to defer judgment · Attendees will learn how to IMPLEMENT that divergent persona effectively within their group and organization · Attendees will gain an understanding of "deep divergence" and how its utilization will increase the number and quality of novel ideas in a brainstorming session. Each individual can easily recognize the various personas they portray to the world based on the diverse situations in which they find themselves and the people they are surrounded by. Examples of varied situational personas include how one behaves in a court of law or inside a religious institution versus being at a football match or in a crowded pub on a Saturday night. Similarly, the persona we put on display changes if we are in conversation with a romantic partner or a trusted friend when compared to a rude stranger on a crowded bus or a bank teller who refuses to help you when half of the money in your account has gone missing for no apparent reason. This innate ability to shift between personas is of enormous value in the realm of creativity. The very best actors utilize this skill to develop characters that are awarded Oscars and BAFTAs. Building upon George M. Prince's concept of "excursions," anyone can create a divergent persona to generate and develop novel and useful ideas. A well-crafted divergent persona gives way to a kind of freedom that explores "the acceptance of irresponsible ideas in the hopes of culling a good one" without the fear or anxiety of criticism.

The Polyployee - the transformative power of multipoential employees in companies

Florian Stummer

Apsley Business School London

Build a niche. Algorithm yourself. Hyperspezialize. The work environment of the 21st century becomes a place of boxes, labels and tags, with leaders on top who are far beyond the capability to direct or steer, but rather react on risk scenarios, market losses and an overarching change aversion. However, as the Universe's medal has two sides by nature, there is an opposing force that came to light in the last years: Generalism. Not only as a term. Through the centuries unique individuals were able to learn faster, adapt rapidly and synthesised ideas quicker than others, namely: Polymaths. These individuals are part of the working world. Unfortunately, most of them live unheard and uncared for in organisational settings around the world. This study undertakes a first attempt to shed light on the lived experience of individuals with polymathic tendencies and their experiences with different leadership styles in corporate settings. By applying Zinger's Framework for employee engagement (Zinger, 2012) twenty-eight self-defined individuals with polymathic tendencies worldwide were asked to answer questions in an online survey about their experiences. The resulting themes were structured and presented to six accomplished Polymaths in a second tier. The qualitative analysis was conducted with MAXQDA. The results provided evidence for misconceptions and misunderstandings in how Polymaths are understood by leaders in organisational settings in the fields of: (1) autonomy in the workplace, (2) the prevailing leadership style, (3) finding meaning in one's work, (4) input developing organisational skills, (5) communication in the workplace, (6) importance of praise, (7) negative perceptions of leaders and (8) teamwork skills. The unused potential of Polymaths in corporate settings are highly linked to the grade of engagement companies are willed, to establish. This includes human resource development strategies, two-way communication, getting rid of micromanagement and flat hierarchies. Satisfied employees are committed, become engaged and deliver better results. Polymaths however can take a company to a whole new level in a world of broken specialisation promises.

Possibilities in the light of materialized performance requirements

Julie Nørgaard
Aalborg University

Perceived pressure from performance requirements affects employees' experiences of possibilities in the workplace. Performance measurement systems materialize in everyday life as indicators of preferred actions and key performances, and in this regard also as indicators of preferred creative action and performances. This lightning talk will draw on a Ph.D.-project in progress, where field studies are conducted in diverse Danish organizations, exploring how employees and managers do creativity in light of materialized performance requirements. The talk shares findings from studies of social practice in a factory hall, at a Danish logistics company. The findings give voice to production staff and managers to show how "creative doings" unfold as social and humanizing activities at an industrial venue. As a low-voiced employee-driven way of both coping and resisting to meaningless performance requirements creative doings arise where bodies, tools, and social practices intersect and cultivate a sense of the possible.

The importance of experiential learning and networking in entrepreneurial education: Evaluation of the SCE incoming week

Min Tang <i>University of Applied Management, Germany</i>	Joel Schmidt <i>University of Applied Management, Germany</i>	Bettina Maisch <i>Strascheg Center for Entrepreneurship, University of Applied Sciences Munich, Germany</i>	Andres Rueda <i>Strascheg Center for Entrepreneurship, University of Applied Sciences Munich, Germany</i>
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In May 2022, over 60 students from 12 different countries participated in a five-day entrepreneurial networking program at the Strascheg Center for Entrepreneurship (SCE) of the University of Applied Sciences Munich with the aim to explore the startup eco-systems of Munich and exchange knowledge and experiences of startups. Of them, 37 (40.5% females, Mage = 22.97, SD = 2.78) participated in an evaluation study applying a longitudinal design involving three measuring points: a pretest on the first day of the program, a posttest on the last day of the program, and a follow-up study six months after the program. Paired sample t-Tests revealed that the program had a positive direct effect on the knowledge (Hedge's $g = 0.87$), entrepreneurial self-efficacy (Hedge's $g = 0.35$) and entrepreneurial intentions of the participants (Hedge's $g = 0.24$). The 6-month follow-up study, using ANOVA with repeated measures, showed that the effect of the program was sustained only for the entrepreneurial self-efficacy, but not knowledge, entrepreneurial intentions, or grit, which maintained high through all three measuring points. These results confirm the stability of the participants' entrepreneurial intention and behaviors as well as the susceptible nature of entrepreneurial self-efficacy. Descriptive data analyses provide further evidence to the persistent impact of the program. Six months after the program, the majority (73%) of the participants reported active contacts with peer friends, 27% with start-ups and 20% with collaboration partners. The participants remained in frequent contact with the network, with 60% reporting that they used the network at least 2-3 and 13% almost once per month after the program. Experience of the program underscores the importance of experiential learning and networking in entrepreneurial education and calls for further development and research on this topic.

Monday, 16:15 - 17:00
Room Possible (AHC.SG05)

Keynote Address

Uncertainty x Design: Educating for possible futures

Ronald A. Beghetto
Arizona State University

Realizing possible futures starts in the here-and-now. The purpose of this presentation is to describe how we can support young people in becoming the creative authors of their own lives by approaching current and future uncertainties with an unshakeable sense of the possible. More specifically, this presentation describes how students can benefit from opportunities to exercise possibility thinking in the face of uncertainty by design. Insights for how to design educational experiences aimed at helping young people learn how and when to act on possibilities now and into the future will also be discussed.

Biography

Ronald A. Beghetto is an internationally recognized expert on creative thought and action in educational settings. He holds the Pinnacle West Presidential Chair at Arizona State University, USA, and is a Fellow of the American Psychological Association. He has been named one of the Top 200 University-Based Scholars in Education by *Education Week*.



Tuesday

Keynote Address

Transformational Creativity

Robert J. Sternberg
Cornell University

The field of creativity has made the (serious) mistake of overemphasizing the measurement and development of creativity without paying sufficient, or often, any attention to the purposes for which the creativity is deployed. Pseudo-transformational leaders, from Adolph Hitler to Vladimir Putin, have shown some creativity, but have directed it toward toxic and destructive ends. It is not enough to pass the buck to those we teach, or simply to offer our wares and hope for the best, meanwhile collecting our salaries and promotions and eking out our (hopefully) middle-class existence. We have a responsibility as scholars and educators to recognize that the same creativity that advantages some individuals in the achievement of their own goals often can severely disadvantage others who become targets of manipulation (e.g., via massaging of social media to maximize revenue) and destruction (e.g., via violence and wars). We need to teach for positive and even transformational creativity that makes a world better, not worse. Otherwise, it is not clear what future, if any, humanity has.

Biography

Robert J. Sternberg is Professor of Psychology in the College of Human Ecology at Cornell University and Honorary Professor of Psychology at Heidelberg University, Germany. Previously, Sternberg served 8 ½ years in academic administration as a university dean, senior vice-president, and president. Before that, he was IBM Professor of Psychology and Education and Professor of Management at Yale and Director of the Yale Center for the Psychology of Abilities, Competencies, and Expertise. Sternberg is a Past President of the American Psychological Association, the Federation of Associations in Behavioral and Brain Sciences, the Eastern Psychological Association, and the International Association for Cognitive Education and Psychology. Sternberg also has been president of four divisions of the American Psychological Association and Treasurer of the Association of American Colleges and Universities. Sternberg's BA is from Yale University summa cum laude, Phi Beta Kappa, his PhD is from Stanford University, and he holds 13 honorary doctorates. Sternberg has won more than two dozen awards for his work, including the James McKeen Cattell Award (1999) and the William James Fellow Award (2017) from APS. He also is the winner of the Grawemeyer Award in Psychology (2018). He is the author of over 1800 publications. He was cited by research.com as the #10 top psychological scientist in the US and #20 in the world. He also was cited in an *APA*

Monitor on Psychology report as one of the top 100 psychologists of the 20th century and in a report in *Archives of Scientific Psychology* by Diener and colleagues as one of the top 200 psychologists of the modern era. He was cited by Griggs and Christopher in *Teaching of Psychology* as one of the top-cited scholars in introductory-psychology textbooks. According to Google Scholar, he has been cited over 224,000 times with an index of 230. Sternberg is a member of the US National Academy of Education and the American Academy of Arts and Sciences. He is a Fellow of the American Association for the Advancement of Science.

Tuesday, 09:45 - 10:15
Room Possible (AHC.SG05)

Principles of Circus Workshop: Collaboration

Marion Cossin **Naila Kuhlmann** **Melanie Stuckey**
École nationale de cirque *École nationale de cirque* *École nationale de cirque*

Over the course of three 30-minute workshops, we will introduce three key principles of circus arts: movement creativity, collaboration and risk/trust. You will be invited to explore these principles through a series of short, simple movement activities. Each activity will be introduced and debriefed, drawing links to our respective research and practices.

How senior executives improvise in response to major crises: The creative and adaptive paths

Ana Luisa Ilha Villanova

Universidade de Nova de Lisboa - Nova School of Business and Economics

The COVID-19 pandemic was a sudden and unprecedented event that severely affected the ordinary course of society, challenging individuals to find solutions to unexpected problems and increasing the opportunity to accelerate new ideas while motivating to promote creativity. Based on the experience of fifty-four senior executives dealing with events caused by the coronavirus pandemic, we unveiled that senior executives respond to major crises by enacting strategic improvisations depending on their problem-solving style and the extent of the crisis' impact on organizational environments. Significant crises can generate problems and opportunities that affect the organizational environment at different levels. At the same time, some challenges are common to several companies; others may affect a particular business. We identified that executives respond to challenges faced by their business undertaking two major improvisational routes, creative and adaptive. Most senior executives showed a more adaptive behavior focusing on maintaining a sense of normality inside their organizations and enacting improvisations without significant deviation from previous practices. At the same time, although on a smaller scale, some senior executives leveraged the crisis' upside potential approaching tasks from unsuspecting angles, finding new avenues of solution, and enacting creative improvisations that, in some cases, generated organizational innovation. Improvisation processes are considered creative activities that intend to generate innovative products but may or may not succeed in generating a creative outcome. Therefore, we argue that when executives prioritize actions to comply with established routines in order to maintain the usual ways of working during a crisis, they may prevent the organization from exploring the positive potential of a crisis inhibiting creative solutions and learning from disruptive events, weakening companies' capacity for innovation. Additionally, a major crisis can generate problems and opportunities that similarly affect multiple organizations. In this regard, we introduced the concept of networking improvisation to describe executives' collaborative efforts in exchanging information to interpret the facts better, enabling similar responses to challenges that cross organizational boundaries.

Building sustainability futures: can designing personas help envision future possibilities?

Carmen Bruno

*Department of Design
Politecnico di Milano*

Lisa Pace

*The Edward de Bono Institute for
Creative Thinking & Innovation,
University of Malta*

The challenge to achieve a digital, green, and sustainable transition and reach climate neutrality by 2050 requires organizations to explore new solutions and innovate their portfolio of products and services. Today companies are called to rethink their norms and values, embracing digital innovations and harnessing technology's potential to develop environmental innovations, sustain health and wellbeing and in so doing meet the UN's sustainable development goals. A sustainability transition may be uncharted territory for many organizations as sustainable development and sustainable futures are often perceived as complex and future user needs are highly uncertain and distant from those of the present day. To navigate these uncertainties, organisations require tools and strategic approaches to anticipate future possibilities, and to understand today how markets will evolve and how customer expectations and needs for future products and services might shift market demand. This research in progress explores the role of personas in anticipating future user needs and in creating future sustainability scenarios to assist strategy building. Personas represent a tool used in design thinking to depict users' latent needs and target future user groups by creating solutions users are likely to adopt. In recent years, the integration of foresight and design thinking methodologies has received increasing attention as an approach to help companies build strategy and create alternative future scenarios based on people's needs and anticipating new sustainable products or service on the market. However, the notion of user needs, which is a critical feature of design thinking, remains largely unexplored in foresight. Indeed, foresight acknowledges the importance of the context and the signals and drivers in the external environment and their influence on the direction and speed of innovation and change, without sufficiently focusing on people's desires and needs. It has become important to study how future needs can be identified in a foresight exercise and how to project these needs into scenarios of the future as input for a digital and green transformation. Drawing from both design thinking and future thinking, this

research-in-progress investigates the role and uses of personas in foresight to inform decision-making and strategy when building sustainable futures. The research question driving the research is “How can the personas method be deployed to assist organizations in envisioning and building more sustainable futures?” We analyze relevant literature to explore the use of personas in futures exercises and scenario building. We searched for publications using ‘personas’, ‘foresight’, and ‘futures’ as keywords to explore whether the notion of personas is adopted in the context of foresight and futures studies and the rationale for using personas and how these contribute to constructing future scenarios. We identify that personas method in foresight could be potentially adopted for: representing fictional users that support a deep understanding of future possible scenarios implications; generating and shaping debates and reflections around complex and wicked problems such as climate change and sustainability issues; bringing scenarios to ‘life’ by describing how characters might experience futures as part of everyday life. This research contributes to integrating personas method in foresight with the aim of enhancing the relevance of scenario process and outputs for organisational planning and strategy, in view of a digital and green transformation.

Dr. Carmen Bruno's contribution to this work is supported through the *Made in Italy Circolare e Sostenibile* - MICS Project. MICS is an Extended Partnership of the Ministry for University and Research (Ministero dell'università e della ricerca) funded by the European Union under the NextGenerationEU program and it represents one of the projects of the PNRR under Mission 4 “Education and Research”.

Resisting the visions of assimilationist urban policy: A psycho-social analysis of speeches from Danish anti-ghetto-law demonstrations

Thomas Madsen
University of Copenhagen

My talk concerns a social movement emerging in the wake of a Danish legislation from 2018, the ‘parallel society agreement’, also known as the ‘ghetto-laws’. This policy aims at bringing the more affluent, educated, and ‘Danish’ middle-class into deprived public housing areas with high percentages of ethnic minorities – the so-called ‘parallel societies’ - to push their assimilation into ‘mainstream society’. Estates designated as ‘parallel societies’ face evictions, demolition, and privatization of housing to forcibly improve the ‘social mix’. Within this context, a social movement called ‘common resistance’ (in Danish, *Almen Modstand*) emerged as a response to the legislation and its consequences: stigmatization of people and places, commodification of public housing, forced relocations, and ethnic discrimination. The movement was formed by tenants in affected areas throughout Denmark. Its activities range from organizing and mobilizing demonstrations, distributing petitions, and fundraising to assist affected tenants with legal fees. My talk revolves around my in-depth participant-observation in the collective actions of this movement in Copenhagen between 2020-2022. Coupled with this fieldwork, the other main empirical material is speeches recorded at a series of anti-ghetto-law protests that I attended during this period. I conceptualize urban policy as a meaning-producing exercise that spells out possible visions of society and ‘the good city’ with accompanying distributions of value for people and places. I articulate how such visions are contested, resisted or rejected in the activities of the social movement. The goal is to understand psychosocial processes involved in collective actions aimed at resisting or slowing down the sedimentation of such visions into collective practices and institutional facts. That is, processes aimed at affecting what visions and possible worldviews become mapped onto future urban places of our times. The analysis is guided by dialogical strands of social representations theory. The main analytic goal is exploring the alternative conceptualizations of future urban spaces as conveyed by speakers. To link such visions to underlying principles of the social and

political context, I emphasize how, in conveying such visions, speakers reference knowledge and viewpoints of specific 'others' (e.g., the state, housing organizations), 'the public,' and the affected communities.

Tuesday, Paper Presentations, Session 2, 10:30 - 12:00
Room Curiosity (AHC.SG10)

Symposium

Cultivating creative ruptions: Improvising with an emergent future

Chris Turner Ursula Crickmay Caroline Welsh Sarah Chave

Creativity and Emergent Educational-futures Network (CEEN)
University of Exeter

This interactive symposium shares our desire to highlight creative approaches to education, to cultivate spaces of possibility for the future and to seek how best to bring ruption and change to existing practices. Ruption, in our context, is a breaching, a breaking-open or a bursting-through, as opposed to a disruption which suggests just an interruption to events or a pause. Ruption more clearly implies the emergence of radical, unpredictable and irreversible change. Each of our speakers is the author of one of the chapters in a forthcoming book (Chappell et al, 2024) and gives a taste of how we challenge the limitations imposed by an epistemology or pedagogy which focuses on knowledge about the external world. Instead, we emphasise a mutual and complex engagement *with* and *through* a world within which we are inextricably entangled (Murriss, 2016).

We aim to offer direct educational responses to the major ecological and social challenges that continue to emerge in the twenty-first century and to prepare educationally for them. The contributors all work from complex philosophical bases but aim to balance the richness of their approaches by translating the theory into practice based on ethical (care-ful) action. Rather than relying on probable futures we argue for a mode of radical thinking arising from the possible, and even the not-yet-possible, by bringing together theory and practice.

Although the symposium has a number of speakers, each with their own perspective, we will operate as an interactive collective in which the key themes of the session – emergence, creativity, ruption, ethics, space and time – are woven through the presentation to illustrate the breaking down of boundaries and to exemplify the notion of connectedness.

Contribution 1 opens the main part of the symposium and sets the scene by involving participants in exploring how there needs to be spaces in education for *bewildering questions*. These are questions where no-one-yet knows the answers, or where it is hard to even form questions as language, and existing dominant conceptions are insufficient to allow their articulation. This proposition draws on Arendt's (1974[1958]) conception of 'spaces of appearance', Snaza's (2013,2020) 'pedagogy of be-wilderment' and the Crex Collective's (2018) 'wild pedagogies' to explore ways to cultivate care-ful entanglements with all others; ruptures in the educational status quo and possibilities for re-imagining the future (Chave, 2021). Using a combination of presentation and participatory, creative (hands-on) craft practices the presenter examines how encouraging *aporia* – literally lacking a *poros*, a path – can contribute to opening up ruptural spaces which embrace *doubt* and see within doubt 'the questions that make a new understanding possible' (Burbules, 1997, 40).

Contribution 2 vividly brings aspects of this theory to life in a present moment provocation of alternative educational futures. In this practice improvised, emergent, creative and care-ful responses entangle with each other in re-imagining contemporary and future educational challenges. This work is rooted in improvisatory music and research in which the presenters meld creative experience, the sonic and the material aspects of music making. You are invited to join them in a response-able (Haraway, 2016) encounter with words, sounds, images and ideas and to 'diffract' this practice through posthuman theory (Mazzei, 2014). They identify this moment of encounter as a liminal space, a betwixt and between of transitional moments, a co-creative space for the emergence of future possibilities. They invite you, as audience, to share in these creative encounters and to immerse yourself in the potential of ruptive experience.

Contribution 3 employs music and music making to create a ruption in Western hegemonic knowledge structures. This is through an exploration of *Utu*, a Kiswahili term describing a philosophical framework that emphasises music and music making as an *aesthetic of life* – not only a reflection of life, but life itself (Nketia 1984). The contention is that it is more than a human right to participate in life through music making - it also has an important temporal dimension in which the present can be captured as a representation of what it can potentially become in emergent futures. Therefore, through the principles of relationality and connectivity in

Utu, aesthetics is described as a creative process of being and becoming through doing for transformation, not only cognitively and physiologically, but for the whole being. This holistic process cultivates a creative rupture which opens a path to the emergence of radical newness hitherto not brought to reality in Western, hegemonic cultures.

We wish to end the session with a joint reflection that allows us to engage with the vulnerability of a process that is open and emerging (Haraway, 2016). While engagement with the arts is used as a means to exemplify our respective philosophies these presentations have wider ramifications and messages to bring to bear on thinking about educational futures. We start with the premise that the future is a largely unknown space full of creative possibilities – live places of interaction and engagement that continually exist on the edges, in the margins and in the spaces of liminality. We do not accept that the past, present and future act in a linear manner but instead are subject to chaos and flux. It is the space of chaos that can become a creative harbinger of the new and through these spaces we seek fundamental and creative changes to the ways in which we view futures thinking in the educational landscape.

The interactive effect of pluriculturalism and creative perception on creative potential: Empirical evidence for Plurilingual Creativity paradigm

Anatoly V. Kharkhurin
HSE University

Valeriya Koncha
HSE University

This study continued empirical investigation of the Plurilingual Creativity paradigm. This framework expands the horizons of the study of the relation between language and creative practices. Specifically, it investigates how the agency of the individual in the interaction of languages and cultures can influence one's creative capacities. The previous findings demonstrated a significant contribution of plurilingualism and pluriculturalism to creative potential, and identified various personality related factors that moderate this impact. The current study makes one step further and focuses on the moderating role of creative perception in the relationship between pluriculturalism and creative potential. Two hundred and sixty-one individuals (47 male and 214 female) aged between 17 and 66 ($M=27.64$, $SD=11.98$) participated in the study. Participants responded to assessments of multicultural experience (measured by Multicultural Experience Questionnaire), intercultural competence (measured by Integrative Intercultural Competence Survey), creative perception (assumed as preference for complexity and asymmetry and measured by Barron Welsh Art Scale), and creative potential (assumed as divergent thinking and measured by Guilford's Unusual Uses test). A series of moderation analyses demonstrated that creative perception moderated the link between pluriculturalism and creative potential. Specifically, preference for complexity and asymmetry moderated the prediction of originality in divergent thinking by the following intercultural competence components: intercultural stability ($\beta=-.0162$, $p<.01$), intercultural interest ($\beta=-.0124$, $p<.01$), and management of intercultural interaction ($\beta=-.0168$, $p<.01$). Further, the significant association between intercultural stability ($\beta=.431$, $p<.01$), management of intercultural interaction ($\beta=.382$, $p<.01$) and originality was found only among participants with low levels of creative perception. These findings suggest that intercultural competence may

strengthen the contribution of creative perception to creative potential. The findings are discussed in a larger framework of Plurilingual Creativity.

Creativity, aging, context, and culture: Reimagining creativity in older adults

Carolyn E. Adams-Price
Mississippi State University

Linda W. Morse
Mississippi State University

Creativity has long been stifled by definitions tied to older ways of thinking about the construct. These definitions have hindered taking a broader perspective of what it means to be a creative person, as well as limiting the impact that creativity has on the individual and the culture in which the person lives. This perspective calls for a freeing of possibilities rather than traditional limited views. This is especially evident in the study of serious hobbies (and crafts) and the benefits they offer both personally and culturally. However, despite the interest in creative aging, little connection has been made between gerontological research and general research and theory on creativity. In the first part of this paper, we will explain why 20th century psychological concepts of creativity were inadequate to describe the impact of creative participation for older adults, and how they perpetuated stereotypes of old age as a non-productive and non-creative time of life. In the second part of the paper, we will discuss theory and research from life-span developmental psychology on why creative activities are important, and how new broader theories of creativity can guide researchers in their quest to determine how and when creative participation can benefit older adults, and the culture at large. This position paper reviews older and newer definitions of creativity with a focus on the meaningfulness of serious hobbies or crafts and how they impact older individuals through life satisfaction, identity, and skill acquisition. Older definitions, rooted in divergent thinking, underestimate the psychological and social growth that can occur when older people participate long-term in creative hobbies. While divergent thinking is likely one component as Glaveanu has suggested, it lacks a larger or more robust view of what happens when creative tasks are generated in the context/ culture in which they occur. Serious hobbies and crafts have been shown to have positive effects on the individual, particularly in the area of identity, which is likely to develop over the whole lifespan, rather than becoming fixed early in life. While the paper will discuss the issues with existing definitions, it will also highlight the importance of culture and context on understanding creativity. For example, Glaveanu has made a point of arguing that the culturally specific artifacts called crafts

deserve to be considered “creative” even if they do not seem to be particularly novel. He argues that crafts, which are frequently created by older people, especially women, are cultural artifacts or heirlooms that can hold meaning for generations. In summary, this paper will review definitions and problems with existing views of creativity, particularly as they relate to aging and serious hobbies. We will highlight the work of Glaveanu to illustrate the broader perspective on what it means to be creative. This review will illustrate the possibilities that are offered through serious hobbies, and the positive impact they have on individuals and society.

Creative families: Understanding how the family business context enhances the psychological capital to create and innovate

Michelle Cowley-Cunningham

*National Centre for Family Business,
Dublin City University*

Eric Clinton

*National Centre for Family Business,
Dublin City University*

Hereditary giftedness is synonymous with famous creative families. What would English literature be without the Brontë sisters, music without the Bachs, or chemistry in the absence of the Curies? These families and the question of whether geniuses are born or made has long fascinated humanity. Taking creativity to mean the production of a significant novel and appropriate change in a given field (by an individual or collective), we investigate the creative entrepreneurial family as a unique testbed for understanding the nature-nurture debate. Family business research has long established a link between firm performance and its creativity. Whether it be banking and the Rothschilds, rail and the Rockefellers, children's entertainment and the Disneys, a family's entrepreneurial creativity engenders transgenerational continuity, enduring competitiveness and long-term orientation. We recognise that individual, group and organisational factors may interact to generate or suppress individual and collective creativity within a family business. That said, experiencing positive intimate relationships and creative achievement may satisfy core psychological needs such as safety, affiliation and self-fulfillment. Family businesses also possess a repository of resource availability, transgenerational knowledge and opportunities for successors to engage in extensive deliberate practice. We demonstrate how these unique conditions provoke possibilities to 'nurture' entrepreneurial creativity, working together to promote psychological capital conducive to creative process.

Symposium

Reimagining the possible in education: self-directed education

Rachel Kuhn

*School of Applied Psychology
University College Cork
(organiser)*

Gayle Nagle

*School of Applied Psychology
University College Cork
(organiser)*

Talk 1. Self-directed education: Mapping the territory **Rachel Kuhn and Wicklow Democratic School team**

In my presentation I would like sketch the broad outline of the contemporary self-directed education movement, focusing on the following aspects: -Defining features of self-directed education that set it apart from familiar mainstream (forced) education; -Different forms of self-directed education, in particular, democratic schools and unschooling; - The history of the movement (especially recent development in Ireland and across Europe); -Relevant psychological and educational research (concerning motivation, role of play in learning, individual differences, etc.) which suggest self-directed learning may be a feasible alternative to forced education; -Future directions for research into self-directed learning.

Talk 2. Child at the centre: Learning to allow **Amor Santovena** *independent homeschooler*

Why would a married mother who has two degrees and an MA decide that she would not send her daughter to school? Why did I choose to unschool? It certainly does not make my life any easier. Or does it? This is an honest account of what I needed to overcome to be able to allow my daughter to be herself, as much as I could. It is a story of what it takes to step out of the system to go on your own, doing something that is not the norm when no one around you is doing it. My daughter is 10+ now. As of 2023, she is still unschooled and she has never been to school. Pablo Picasso famously said: "Every child is an artist. The problem is how to remain an artist once we grow up". Why is that a problem? Why is it so difficult to remain an artist? How does a child learn when left to her own devices? How has she evolved through time? What do others say about

her? What have I learned from observing her create and living with her 24/7? What are the benefits of this type of education? What are the drawbacks? What does the future hold for us? Where do we go from here? I would like to make some suggestions for further research.

Talk 3. Democratic education: Sligo Sudbury School experience

Gayle Nagle and Sligo Sudbury School team

In our submission we would like to trace the origins of our school and its development over the first five years to date. We will cover the following: 1)The original rationale of the school founders: reflections on experiences working in mainstream schooling and home educating 2)The process of establishing the school: assessing viability, sharing the vision and acceptance within the community 3) Connections with the Irish State: becoming an Independent school under TUSLA 4)The emergence of a community of self-directed learners: day to day experiences of students and staff 5)The research and practice: self-determination theory, self-regulation, intrinsic vs extrinsic motivation, autonomy and well-being.

Talk 4. Cultivating the possible: Reimagining education and society in our schools

Helen Healy

Wicklow Democratic School

I would like to share the perspective of a counsellor working in a democratic school. I will focus on how our schools cater to the wellbeing of the student in and of community, exploring the following issues: • Change is the new constant: Navigating the inner/outer landscapes of a rapidly changing society to include responsibility/response-ability. • Democratic education: Potential for community, connection, communication • Agency through belonging, freedom, exploration, fun, empowerment, cultivating the intellect • From survival to thrival (thrive-all /all thrive) • ‘Mission impossible’ to ‘Mission I’m possible’.

*Tuesday, 13:00 - 13:45
Room Possible (AHC.SG05)*

Keynote Address

Creating lives: The possibilities of human freedom

Barbara Kerr
University of Kansas

The common theme of studies of creative individuals is the search for both individual freedom and social connection. Schooling should help students toward both self-determination and interdependence. This presentation introduces the possibility of reclaiming the opportunity to live as humans evolved to live. For 200,000 years, most of us worked only a quarter of the day for food and shelter. We spent the rest of our time performing those behaviors we evolved to enjoy, including gossiping, playing, telling stories, making things, making love, and altering consciousness. My research on happy families, creative communities, and innovation hubs in Iceland shows how groups of people can choose to support one another's freedom. Let's discuss ways to expand liberty in our families, schools, and communities by embracing these primal needs and creating good lives.

Biography

Barbara Kerr holds the highest rank in her field as Williamson Distinguished Professor of Counseling Psychology and is Co-director of the Center for Creativity and Entrepreneurship at the University of Kansas. One could summarize the goals of her laboratory as centered on the question, "What does it take for people to fulfill their highest potential as humans?" The Counseling Laboratory for the Exploration of Optimal States (CLEOS) team investigates this question at the individual level of abilities, personality, and privilege; at the group level of positive families and schools that optimize freedom; and at the national level by studying societies that support well-being, equality, and creativity. She is an APA Fellow; winner of Torrance Award for Creativity; a founding member of the United States White House Nation of Makers; World Conference on Giftedness, Talent, and Creativity International Scholar award; Visiting Scholar at Monash University in Australia and a Fulbright Arctic Scholar and Fellow. She has authored ten books and over a hundred peer-reviewed articles and papers.

*Tuesday, 13:45 - 14:30
Room Possible (AHC.SG05)*

The Creative Ireland Programme – Creative Communities

Amanda Pedlow
*Heritage Officer,
Offaly County Council*

Deirdriú McQuaid
*Senior Executive
Librarian,
Monaghan County
Council*

Michelle Carew
*Arts Officer, Cork City
Council*

The Creative Communities initiative has delivered notable successes in engaging creativity as a strategy for wellbeing, social cohesion and economic development. *Creative Communities* has brought about new areas of delivery working across local authorities, as well as supporting local authority innovation and new partnership development. Since its establishment in December 2016, the Creative Ireland Programme has worked with various Government Departments and agencies to make significant progress in embedding creativity in public policy and delivering on the ambition of Government. Working collaboratively, the Creative Ireland Programme has focused on both supporting direct engagement with creativity (e.g., on education, institutions, industry) as well as creativity as a way of engaging with broader societal issues (e.g., mental health, social marginalisation, rural isolation, poverty, isolation of the aged, individuals with disabilities or special needs, migrant integration, intercultural dialogue, climate action, biodiversity loss). Three Creative Ireland Coordinators who have led programmes on behalf of local authorities for the past 5 years will discuss the flexible and agile approach to embedding Culture and Creativity into public policy at a local level.

Symposium

Inclusive design - Challenges and opportunities for an uncertain future

Darragh McCashin (organiser)
Dublin City University

There is a growing recognition of the key role co-design can play in addressing key research, policy, and societal challenges. However, across disciplines, there is a wide variety of concepts, frameworks and theories that try to capture the principles of co-design – these are not limited to: participatory or human-centred design within the computer sciences, co-design and public-and-patient involvement within the health and social sciences, or service user involvement within research-to-practice domain. At the essence of all such approaches is the idea that one designs ‘with’ the individual, as opposed to ‘for’. The explosion of design thinking across both industry and academia has raised questions about how inclusive (co-)design is, or even should be given the many resourcing constraints facing stakeholders. This session will critically discuss these issues from the perspectives of different researchers who are addressing inclusivity within their projects. The following key themes will be addressed:

- How do we recognise, address and prevent the dangers of (perceived) tokenism in participatory research?
- What are best practices in navigating the principles of inclusive co-design across disciplines?
- How can we appraise the available evidence for the effectiveness of such approaches?
- What is the underlying theoretical, philosophical and ethical positioning of co-design?
- What are the key considerations for inclusive co-design across different population groups (for example, vulnerable groups such as those experiencing illness, or sensitive research topics with children)?

Talk 1. Environmental ethics and the possibility of re-enchanting the world

Fiachra O'Brolchain

Dublin City University

Moral ideas – ideas around what is valuable, around ways of living – will always inform our ideas of the possible. Moral thinking and possibility are intimately connected, when we think about how we might live, about what would constitute a good life, and what ends we should pursue, we think about whether these things are possible. These connections are worthy of exploration and elaboration. However, in addition to these connections between morality and possibility, the opportunity to develop new moral frameworks, informed by cutting-edge discourses in environmental philosophy, will be outlined. This latter aspect – the possibility of novel ways of thinking about our relationship to the rest of nature – is amongst the most exciting of the many areas of convergence between the philosophical study of morality and possibility studies.

Talk 2. “Asking the algorithm”: Understanding the help-seeking behaviours of young people on TikTok – A mixed methods co-design approach to optimise mental health and wellbeing

Orla McGovern

Dublin City University

Research has highlighted how children and young people (CYP) have a preference to access mental health information and support through informal avenues such as through social media. With TikTok being the fastest growing social media platform for young people, it offers potential to support help-seeking and provide mental health information and support to CYP. However, there is little research on how to do this. Co-design approaches can facilitate a collaborative approach to the design and development of mental health resources for CYP. This project aims to, 1) systematically review, across disciplines, research evidence in relation to the use of co-design methods with CYP to co-create online mental health interventions, 2) explore the experiences of CYP using TikTok when accessing mental health information and support, and 3) collaborate with CYP and other relevant stakeholders to develop best-practice guidelines for the representation of mental health information and support for CYP on TikTok. The systematic review is currently ongoing. Six databases were searched for studies. Empirical studies were included if they used a co-design methodology with CYP to design online mental health

interventions. The results of this review will be used to inform the design of the forthcoming co-design sessions. This talk will critically reflect on some of the emerging challenges and opportunities of co-design within the digital mental health space and with CYP.

Talk 3. How might we encourage progress in the Higher Education space through the application of co-design? A critical reflection on the Maynooth Innovation Lab pilot project

Threase Finnegan-Kessie

Maynooth University

In 2019, an interdisciplinary team of Designers and Anthropologists were awarded funding under the Higher Education Authority's Innovation and Transformation fund to establish the Maynooth Innovation Lab: the first innovation lab in the world which used a Design approach to understand and respond to the challenges facing members of the Higher Education community. Since the completion of the Mi:Lab pilot, the team are keen to offer their reflections on the experience of co-design in this space, focusing on the navigating the ethics of designing with the numerous stakeholders groups in the Higher Education community.

*Tuesday, Paper Presentations, Session 2, 14:30 - 16:00
Room Curiosity (AHC.SG10)*

Symposium

Reimagining Gifted Education - Allowing highly able students to reach their potential through partnership and diversity

Colm O'Reilly (organiser)
CTY Ireland, Dublin City University

Talk 1. Social experiences of gifted students

Colm O'Reilly, *CTY Ireland DCU*

Professor Jennifer Cross, *Center for Gifted Education, William and Mary School of Education*

Professor Tracy Cross, *Center for Gifted Education, William and Mary School of Education*

Dr Colm O'Reilly (CTY Ireland, DCU), Professor Jennifer Cross and Professor Tracy Cross (Center for Gifted Education, William and Mary School of Education) will talk about heterogeneity amongst gifted students. Understanding individual differences among gifted students allows for targeted support of their psychological well-being and, ultimately, their talent development. Many studies of gifted students have explored variables such as perfectionism (Fletcher & Speirs Neumeister, 2012), self-concept (Dai & Rinn, 2008; Rinn et al., 2010), or social coping (Matthews, 2014). While this research offers clues into the needs of gifted students, a blanket approach based on these findings is likely to miss its mark. New research methodologies have allowed us to focus on the students themselves, rather than on the constructs of interest. In more than a decade of research with students attending programs at DCU's Centre for Talented Youth-Ireland (CTYI), we have identified patterns of psychological characteristics through person-centred analyses. Gifted students vary significantly in their personalities and their self-confidence, for example. While some students have profiles that reflect positive psychological adjustment, others have profiles that suggest psychological support may be needed.

Talk 2. Gifted disadvantaged students

Leeanne Hinch, *CTY Ireland DCU*

Prof Jonathan Plucker, *Johns Hopkins University*

Dr Leeanne Hinch (CTY Ireland DCU) and Prof Jonathan Plucker (Johns Hopkins University) will discuss gifted disadvantaged students and how they can be supported. Often families of gifted children must seek out alternative educational opportunities for their child to ensure they are adequately challenged. This is often particularly difficult for families from socio-economically disadvantaged backgrounds which contributes to the “excellence gap” we see where certain demographics of students at the advanced level achieve lower scores. Recent research has recommended that socio-economically gifted disadvantaged students need different kinds of support than their peers (Plucker & Peters, 2016). CTYI has run multiple projects focusing specifically on high ability children from socio-economically disadvantaged backgrounds. To better advocate for and accommodate these students, CTYI and Professor Plucker have carried out numerous studies on the various supports that exist for gifted socially economically disadvantaged students. This presentation will highlight the findings of several of these studies and provide recommendations for what accommodations and supports can be made for children in similar situations so that they can achieve to the best of their abilities. The presentation will also explore the challenges faced by teachers and educators in identifying gifted students from disadvantaged backgrounds, and provide insights into effective identification strategies.

Talk 3. University based approaches for gifted students

Catriona Ledwith, *CTY Ireland DCU*

Dr Kim Lansdowne, *Arizona State University*

Dr Catriona Ledwith (CTY Ireland, DCU) and Dr Kim Lansdowne (Arizona State University) will discuss how out-of-school opportunities for gifted students supplement school curriculum allowing students to engage with subjects on a deeper level than in a traditional classroom setting (Olszewski-Kubilius & Clarenbach, 2012; Subotnik, Olszewski-Kubilius & Worrell, 2011). Examples of out of school programmes include Saturday classes and summer camps. They will also discuss an exchange programme setup between the Herberger Young Scholars Academy at Arizona State University and the Early University Entrance programme at Dublin City University. Both of these institutions are examples of university-based programmes for gifted students while they are still at school. Starting in 2016, the exchange was set up to bring together gifted teenagers as part of the Transatlantic Higher Education partnership. The talk will discuss how universities can offer gifted students greater depth in their learning and

access to better resources and facilities and how international experiences broaden the horizons of these students.

Talk 4. Gifted LGBTQ students

Orla Dunne, *CTY Ireland DCU*

Prof Niamh Stack, *Mary Immaculate College, Limerick*

Dr Orla Dunne (CTY Ireland, DCU) and Prof Niamh Stack (Mary Immaculate College, Limerick) will discuss the experiences of gifted LGBTQ young people and how schools and organisations can better support this population. Gifted LGBTQ young people can be particularly sensitive to revealing their identity to others (Tuite et al., 2021), fearing rejection from peers (Hutcheson & Tieso, 2014). Identity development struggles can affect gifted LGBTQ students' sense of self, leading to increased mental health issues (Sedillo, 2018) and affecting positive social and emotional development. Gifted students who diverge from heterosexual and gender role norms face difficulties with peers that may require interventions to prevent bullying and to promote self-esteem (Kerr & Multon, 2015). Without a supportive environment, which acknowledges and supports their talents and skills, gifted LGBTQ students can engage in inappropriate coping strategies, such as denying their talents, underachieving, or masking their giftedness from classmates to gain peer acceptance (Cross & Swiatek, 2009; Peterson & Rischar, 2000). Therefore, it is important to provide this student population with an affirming environment in order to support their talents. This section of the symposium will discuss the key factors which create this type of environment, with particular reference to current research with gifted LGBTQ students in Ireland.

Engaging with students, staff and ‘critical friends’ to identify creative solutions to improving accessibility and inclusion in open, online, undergraduate, psychology teaching and learning

James Brunton

Dublin City University

Chloe Beatty

Dublin City University

Sophia Pallaro

Dublin City University

Online, open education generates transformative possibilities for students with diverse learning needs who would otherwise not be able, or would prefer not, to attend on-campus higher education (Lee, 2017). However, while open and online programmes have facilitated students’ ability to access higher education institutions (HEIs), numerous barriers in teaching and learning approaches and in the uses of educational technology can impact negatively on levels of accessibility and inclusion within programmes (McKeown & McKeown, 2019). Although some progress has been made around accessibility and inclusion in higher education, it is necessary to continuously improve teaching and learning practices to ensure education is as accessible as possible (Batanero-Ochaita, 2021). With such continuous improvement in mind, the aim of this study is to review and redevelop elements of the teaching and learning approaches relating to accessibility and inclusion within a fully online, open education, undergraduate psychology programme in an Irish HEI. The review and redevelopment are based on feedback gathered from key stakeholders: students; staff; and critical friends with expertise and experience of enhancing accessibility and inclusion in HEIs. The study employs an action research methodology, which has gathered data through written feedback, interviews, and focus groups with students and staff involved in the programme, as well as with critical friends. Collected data was analysed to identify possible changes to the design of modules designed to improve accessibility and inclusion. After the initial redevelopment of the modules, following UDL principles, feedback on the implementations was gathered from the participants as part of the evidence-based reflection and planning cycle. Both staff and students were regarded as co-designers of the online learning experience. All project activity, observations, and materials were recorded and included as data in the study. The main outcome of the study, the redevelopment of the modules in the

online, open education programme to improve their levels of accessibility and inclusion, has facilitated and enhanced the learning experience not only for students with specific learning needs, but for all students in the programme. The findings from the study have been summarised in an open-access guide on enhancing accessibility and inclusion in online teaching and learning practices, which is of interest to researchers, policy-makers, or those coordinating online higher education programmes or courses that implement a blended learning approach.

Embodied creativity, hybridity, and the academic incubator building-that-teaches

Laura Malinin

Colorado State University

Leah Scolere

Colorado State University

As higher education institutions (HEIs) seek ways to better prepare students for meaningful and productive work in the future economy, many are constructing academic incubators (AI) to provide a physical context, curriculum, and culture to support multi-disciplinary creative collaboration through experimentation, hands-on skills acquisition, and strategic partnerships with industry. However, as physical platforms for creativity and 21st century skills development, these facilities remain comparatively understudied. Furthermore, some AIs are designed to function as a building-that-teaches, with the physical environment acting as a third teacher (Malaguzzi) to stimulate curiosity, encourage creative behaviors, and enact learning through person-environment interactions. In this presentation we share outcomes of an AI building-that-teaches constructed in January 2019, including results of a recently completed research study involving the co-design and evaluation of an augmented-reality phone-based application intended to make physical environment affordances more explicit to AI users. From this broader research project, our presentation will focus specifically on our as yet unpublished findings centered around the concept of imagined affordances and the potential for co-creators of space to use AR to hack space, test temporary spatial concepts, and leave digital traces within the building. We position these insights with respect to future research grounded in embodied creativity and niche construction theories. These findings suggest opportunities for occupants as co-creators of space to foster a “fast” sense of place and belonging in academic incubators.

A living laboratory: Exploring affordances of an academic incubator as a physical-digital metaverse

Laura Malinin **Leah Scolere** **Brendan Kelley**
Colorado State University *Colorado State University* *Colorado State University*

The metaverse presents a vision for a technological future with persistent virtual and hybrid environments; however, the focus has primarily been on proposals for virtual worlds. This begs the question: What is the role of the physical university campus in the future metaverse? This presentation describes a proposal for an academic incubator building housing an interdisciplinary center for design thinking and collaborative creativity. We describe how the building has been used as a living laboratory for engaged scholarship and interdisciplinary research projects since it opened in 2019. Framing the building as a hybrid technological platform-for-learning, we position case examples of these projects that afford person-environment interactions with respect to various points along the hybrid environments continuum - from fully digital (e.g., virtual reality), intersectional (e.g., digital twins, mobile augmented reality, spatial sensor technology/IoT), to fully physical (e.g., the constructed/ built environment.) We describe outcomes from these past and existing programming, with respect to our novel conceptual framework to illustrate how AIs and learning spaces might be reimaged on a physical-digital continuum to enact learning. We propose how this framework might inform future co-design processes, guiding architects, interior designers, facilities planners, computer scientists, educators/administrators, and other stakeholders to reimagining learning space design.

New technologies and creative learning: an educational neuroscience perspective

Sara Lal

*University of Technology
Sydney*

Bem Le Hunte

*University of Technology
Sydney*

Barbara Doran

*University of Technology
Sydney*

Creativity and creative minds, when combined with ubiquitous technologies, results in innovation and ideas. How do we continue to re-imagine technologies so that they extend the possible instead of stifling our imagination with pre-fabricated creativity? How do we continue to harness the power of technology to express our humanness and retain our ability to create the future we want? As we move beyond COVID-19, ubiquitous technologies, even more so now, are shaping the possible by shaping the future of learning. As the education sector embraces a transition towards remote and hybrid modes, enabled with the growth of AI, robotics, human-computer interface and multiple other smart technologies, we are rapidly facing the challenge to re-imagine the future of creativity.

Creativity has always driven human progress, innovation and possibilities. For example, the human ability to tell stories is posited as the ultimate tool to fast-track the evolution of our species (Harari 2015). With advancing technology, 'creative learning has rocketed' and with the sudden turn since 2020, educators and learners from different parts of the globe are brought even closer together in a 'world that is shrinking' while 'technology is expanding', but how will human creativity fare with this technological explosion?

Hence, as we get engulfed by ubiquitous technology-based education; associations to foster creativity and resilience, with 'mindfulness in mind', no pun intended, the discipline of neurosciences becomes an overarching driver in social/emotional teaching and learning to foster and drive creative solutions. The need to foster creativity in a mindful way becomes ever more important when we are proposing uses of technology such as in brain-targeted teaching utilising virtual reality, robotics, visual arts, gamification, physical movement, etc.

This paper will take a transdisciplinary approach that encompasses the disciplines of education, psychology, neuroscience, engineering, including AI and machine learning to understand how creative learning can continue to flourish in our digitally enhanced world. Attention, performance, fatigue, decision making, mindfulness, emotion, mood and personality, amongst others are some areas to explore, as well as guide the development, design, ethics, and security aspects of progressive future technologies in education.

*Tuesday, Paper Presentations, Session 4, 14:30 - 16:00
Room Future (AHC.SG14)*

Symposium

Participation and the possible

Edward P. Clapp (organiser)

Project Zero

Harvard Graduate School of Education

How might we encourage young people to recognize participation is constructed and be agentic designers of their participation? How might we support them—and all of us—to reimagine our own participation in systems in order to challenge obstacles and leverage possibilities? Drawing from the JusticexDesign project's framework and pedagogical tools, we will emphasize what is made possible when we engage in critical and courageous inquiries around participation that foreground our inherent, yet often overlooked, identities as designers. The JusticexDesign pedagogical framework approaches participation as the activation of one's power. In order to activate power(s), we must first uncover the complexity and multidimensionality of power. This work demands individual and collective resiliency, nuanced criticality, and a willingness to confront discomfort along the path to co-liberation. Looking closely at examples from classrooms, museums, and the nonprofit sector, we will consider the implications of some of the JusticexDesign pedagogical principles and practices for supporting and provoking exploration into the possibility of co-creating more just and compassionate futures—futures that may rely on both the subtle and radical re/designs of our participation.

Talk 1. Potential and creative participation

Michael Hanchett Hanson

Teachers College, Columbia University

In a famous debate between the humanistic psychologist Carl Rogers and the existential philosopher Martin Buber, the concept of individual potential arose. Rogers admitted that his goal of unconditional positive regard for therapeutic clients was not always possible, but he could maintain such esteem for the clients' "potential." Buber contended that people did not have a single potential or even a generally "good" or "bad" set of potentials. Instead, we all have polarities of potential in which the generally considered "good" and generally

considered "bad" define one another and could be expressed differently depending on context, especially the contexts of relationships. For creativity theorists: a mentor, specific opportunity, or shift in world conditions can all make substantial difference. Buber's view generally aligns with the Participatory Framework, which sees individual creative potential as contingent on context – our "fit" in the creative ecosystems in which we participate. This view differs from some of the currently prominent uses of the idea of creative potential as contained within the individual and measured through tests like divergent thinking. Is there a way to think about "creative potential" that remains meaningful without collapsing into unrealistic individualist reduction or mere projections of our own values onto others or onto our own futures? Using case study data from real-world creative work, we will consider the ways we can think about and research this thorny idea.

Talk 2. Cultural participation

Edward P. Clapp

Project Zero, Harvard Graduate School of Education

Whether buying a ham and cheese sandwich at the corner deli or submitting a ballot at the local election box we as individuals are always participating in culture. "Culture" is a thorny issue, of course. Some may merely describe culture as social interactions, whereas others may describe culture from the perspective of heritage and ethnicity. In this presentation, culture will be described as the coming together of people with a range of shared (or not) beliefs, traditions, and humanity. Cultural participation, then, may be described as in engaging in the worlds of culture. Cultural participation can be understood as actively or passively engaging with a community of people through one's actions. Questions emerge based on this definition. Is cultural participation a series of decisions one makes, or something that just happens to the self—or some combination of the two? Further questions of diversity, equity, and inclusion emerge as we consider the concept of cultural participation, as do issues of entitlement and privilege. At the end of the day, participation is power. The potential for each person to engage in participation is directly related to the potential each person has to shape their worlds—and the worlds of others.

Talk 3. Creative ecosystem framework: A case study of World Creativity Day

Felipe Zamana

Université Paris Cité & Université Gustave Eiffel, Paris

Ecosystem's domain became well known since cross-industrial collaboration became the main driver of innovation and economic evolution. But the importance of the ecosystem's approach to creativity can be identified in the increasing emergence of collaborative platforms, in which creativity is the main feature for bringing change about. With that in mind, how individuals participate in these same platforms –what roles they engage with– becomes a central question. According to the participatory creativity perspective, it is related to a wide variety of possible roles within distributed social systems. To examine them, a case study was conducted focused on the individuals' roles regarding the creation process and in the development of collaborative creative work. Based on the findings, circumstantial roles are proposed and presented in an integrative model. The study concludes with possible consequences for participation within a creative ecosystem and how it can make open up new forms of collaboration and social interaction.

Tuesday, 16:15 - 17:00
Room Possible (AHC.SG05)

Keynote Address

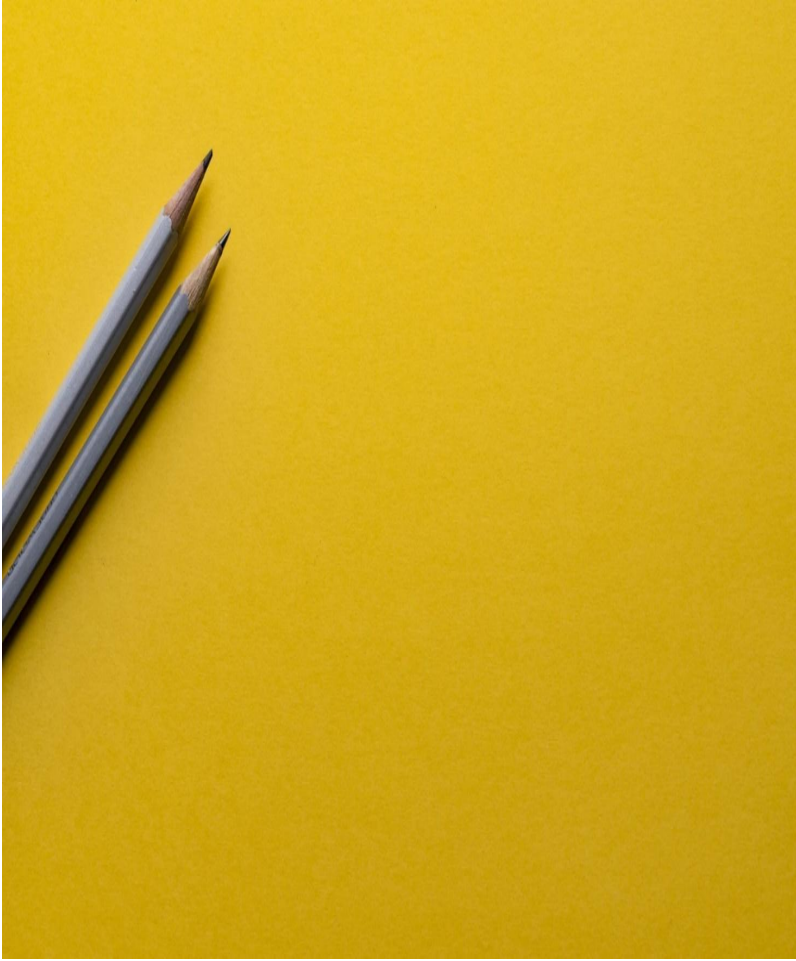
Navigating difference in education: Engaging with the possible through teacher training and development

Luciana Dantas de Paula
Institute of Psychology, University of Brasília

As educational systems continue to grow and diversify, the need to navigate differences in the classroom has become increasingly crucial, yet still challenging in practice. Teachers often lack the necessary training to deal with the challenging situations that arise in schools, such as conflicts, prejudices, and discrimination. In fact, teacher education frequently overlooks the development of resources to effectively navigate these tensions. This may appear to be a minor issue on the surface, but it is a significant problem, especially given that explorations of the possible are grounded in difference. Our inability to navigate these tensions, in education and society, may limit our ability to cultivate the possible inside and outside the classroom. Therefore, this keynote will explore these issues through a teachers' lens on their classroom experiences. The presentation will draw on a research project that involved fourteen teachers from various states in Brazil who shared their perspectives on difficult situations in the classroom. Eight focus group sessions were held, covering a wide range of topics related to dealing with differences in the classroom, as well as three follow-up interviews with teachers. A significant result was achieved, over two months, with teachers from various backgrounds having developed practical strategies and having gained new perspectives to more effectively address prejudice, conflict, and discrimination in their work. That was achieved through collective reflection and open dialogue. Lessons from this collaborative process can inform teacher education programs, empowering educators to achieve one of the fundamental aims of education - scaffolding human possibility.

Biography

Luciana Dantas de Paula is a doctoral researcher in the Developmental and School Psychology Graduate Program (PGPDE) at the Institute of Psychology of the University of Brasília (UnB). She graduated in Psychology from Centro Universitário de Brasília (UniCEUB) in 2016. She is an active member of the Laboratory of Dialogical and Cultural Psychology Research (LABMIS) at the University of Brasília, and of the Dialogical and Cultural Psychology research of the National Association of Research and Graduate Studies in Psychology (ANPEPP). She is the Communications Officer for the Possibility Studies Network. She is the founder and coordinator of the Early Career Network (ECN), an international network that brings together graduate students from around the world with common interests in the topics of creativity, psychology, and human development. She is an assistant editor of the journal *Possibility Studies and Society*, Springer Publishing. Her interests include human development processes, deconstruction of prejudices, dialogical and cultural psychology. Outside academia, she has facilitated Nonviolent Communication processes for various groups and companies.



Wednesday

Keynote Address

“Failing” to succeed: How rejected possibilities are used to build solutions

Thomas C. Ormerod

University of Sussex

Like much of creativity research, possibility studies faces two philosophical challenges: the homunculus problem, in which switches in mental activity cannot depend on an internal autonomous decision-making device (which itself would need such a device, ad infinitum); and the frame problem, in which choices of where to explore fruitfully for new ideas in a potentially infinite space of possibilities must somehow be constrained to areas of relevance that cannot be pre-determined prior to commencing exploration. In this talk, I will present PRODIGI (Progress and Discovery of Ideas In Generating Insights), a computational model implemented in ACT-R that seeks new possibilities in the products of its own failures to solve, comparing the properties of failed attempts, extracting dimensions of variability that differentiate alternative failures, and using these dimensions to discover new possibilities. The model is the first computational implementation that can find solutions to an insight problem without being provided with solution-relevant knowledge from the outset. I will illustrate how PRODIGI addresses the homunculus and frame problems with computational and behavioural data from two puzzles: the Nine-Dot problem and the Cards problem, the latter an analogue of the challenge faced by Mendeleev in creating the periodic table of chemical elements.

Biography

Thomas Ormerod (BSc, MSc, PhD, C. Psychol, F. BPs) is a Professor of Psychology at the University of Sussex, UK. He is a cognitive psychologist with research interests in human thinking and expertise. He has published over 100 peer-reviewed journal articles on expertise, systems design, and human decision-making, and has managed over £10m external research funding, with a focus on creative expertise, problem-solving and decision-making. His current theoretical work focusses on the development of computational models of insight during problem-solving, while his applied focus is on investigative expertise in the criminal justice system. He was elected a Fellow of the British Psychological Society in 2013. His current role at Sussex is as Director of the Applied Behavioural Science unit (www.appliedbehaviouralscience.co.uk), which provides Psychology as a service to industry, commerce, government and NGOs.

*Wednesday, 09:45 - 10:15
Room Possible (AHC.SG05)*

Principles of Circus Workshop: Risk & Trust

Marion Cossin

Naila Kuhlmann

Melanie Stuckey

École nationale de cirque École nationale de cirque École nationale de cirque

Over the course of three 30-minute workshops, we will introduce three key principles of circus arts: movement creativity, collaboration and risk/trust. You will be invited to explore these principles through a series of short, simple movement activities. Each activity will be introduced and debriefed, drawing links to our respective research and practices.

aBC - a Business of creativity: Business modelling for architects and designers

Armina Popeanu

Ion Mincu University of Architecture and Urban Planning, Bucharest RO

Architecture is liberal profession with a long way of specializing that requires resilience and grit to be able to practice as an architect at the end of 6 years of integrated studies. Nowadays with CCI (Culture and Creativity Industries) as a rising sector in Europe business education is mandatory for architects and designers along their Bachelor and Master Studies. As a highly creative profession, Architecture and Design is usually relying on networking within the construction sector to get clients. But is this a sustainable business model nowadays? The interdisciplinary PhD research in Business of Architecture, that intersects with 2 other main domains: Creativity and Economics proposes a more adapted business model to this fast changing industry we are living in these days. Also, it presents some case studies of how Business of Architecture is done in Romania versus European Union. At the end we suggest some directions of how Business of Architecture could be taught in Universities in the next few years.

Creativity predictors in organizational contexts: An empirical study in creative ecosystems

Felipe Zamana

Université Paris Cité & Université Gustave Eiffel, Paris

Creativity is an incredibly complex phenomenon, explored from multiple fields and in an array of perspectives across time. With the increasing complexity of possible perspectives to address it, some researchers proposed a model to synthesize creativity as a whole system made of different components (Rhodes, 1961; Glaveanu, 2013; Lubart, 2017). Considering creativity as a dynamic “set of distinct components with specified relationships” (Stahl & Brower, 2020, p. 464), this study aims to determine what are the essential predictors for creativity to happen in complex systems. Gruber (1981) said that “without any one of a number of vital organs, the individual dies; without any one of a number of vital components, an argument fails” (p.5). So, what are the “vital organs” of creativity? Based on the Evolving Systems Approach (Gruber, 1988), Investment Theory (Sternberg & Lubart, 1991), and Componential Theory (Amabile, 2013), we propose a comprehensive model of analysis for these necessary predictors. Considering creativity as something both novel and appropriate for a specified context, our hypothesis is that three predictors—curiosity, learning, and adaptation—are necessary for the three main components of creativity—knowledge, motivation, and social environment—to be explored and exploited. To test this hypothesis' validity, the Experimental Vignette Methodology (EVM) (Aguinis & Bradley, 2014; Atzmüller & Steiner, 2010) was adopted to manipulate the predictors and components. First, general definitions for the predictors and components are provided based on the three creativity theories cited. Then, prototype group creativity behaviors within organizational contexts were designed using EVM (showing either predictors, components, both, or neither) and validated. Finally, the results are analyzed according to Necessary Conditions Analysis (NCA) (Dul, 2016). Focusing on aiding future systemic, contextual, and dynamic approaches to creativity, the study concludes with possible consequences for professional environments.

How creativity can become the engine of organizational adaptability

Oana Velcu-Laitinen
Independent Researcher

How can leaders prepare their organizations for the future? In a world of volatility, uncertainty, complexity and ambiguity, becoming adaptable is necessary for leaders and their teams. And to be best prepared to react with appropriate behaviours when faced with the unexpected, what if leaders support their experts to adopt a proactive attitude to change? Even better, what if leaders became role models in exercising the ability to anticipate possible sources of improvement and growth within and outside the company? The aim of this paper is to explore the possible contexts when leaders are likely to associate behaviours of creativity with the efficacy of their roles.

From work to wonder: a new creativity infrastructure for innovating in the future of work

Theo Edmonds

University of Colorado Denver's Imaginator Academy

An international network of transdisciplinary scientists, artists, and business leaders are developing a multi-year “field building” research intervention to understand how social processes for group creativity in companies can be designed to enhance organizational-level innovation outcomes within the brain economy. The Creativity Infrastructure Project (CIP) is led by CU Denver’s Imaginator Academy (IA) in collaboration with the Brain Capital Alliance. IA organizes and sponsors scientific research and creative works investigating how social and emotional well-being of teams drives business creativity and produces new value for companies. Our focus is on organization level processes and outcomes that produce a Brain Capital triple play for business: creativity, culture analytics, purpose-rich human experiences. IA’s long-term goal is to establish a new relationship between arts, science and private sector corporations for longitudinal future of work research, executive team training, and knowledge sharing focused on unlocking creativity across every industry sector as an innovation multiplier. CIP advances a multi-national research idea arising from the 3-day Imaginator Summit at CU Denver (October 2022). CIP’s development approach devises and tests a measurable, replicable, scalable creativity infrastructure framework capable of supporting long-term future of work research and growth among transdisciplinary teams. The work will be in collaboration with global experts from arts, science, and business. Together, we advance private sector partnerships to build brain capital (brain health + brain skills) in companies with a specific focus on the brain skill of creativity and the social processes that transform it from latent capacity into innovation (new economic and social value) across diverse industries. Up to twenty companies across two cities, Denver, and Barcelona (Brain Capital Alliance headquarters), will be recruited to participate in the research. Our initial 4-year effort serves as a pilot upon which to build further public-private research collaborations, establishing new prestige and value for creativity sciences and arts across diverse industries/communities. Grounded in state-of-the-science brain capital

research from neuroscience, economics, social sciences, and humanities, CIP employs a mixed-methods approach towards three primary objectives. Objective One: Validate quantitative brain capital skill assessment tool for use in companies to maximize ROI for innovation investments. (Imaginator Index) Objective Two: Design a randomized control trial centered on Artist Innovation Residencies (AIRs) targeted on building brain capital inside private sector corporations. Research will investigate: 1. Artists' mediating impact on team-level novel ideation and cognitive capacity (e.g., creativity, cognitive flexibility, semantic memory); and 2. the antecedent cultural conditions of work environment (e.g., team social well-being) suggested across diverse research disciplines as mechanisms for converting brain capital skills into new organizational-level value. Both economic value produced through the commercialization of products/services and social value produced through areas like corporate social responsibility will be considered.

The wonder-full education questionnaire: Do primary school UK teachers promote wonder in their classrooms?

Marina Bazhydai
Lancaster University

The Wonder-full Education Questionnaire is a novel measure for teachers and school leaders assessing the importance of fostering the sense of wonder in schools (Egan et al., 2014; Wolbert & Schinkel, 2020). It was developed and validated in the Netherlands with teachers of 9-12-year-old children (Conijn et al., 2021) and has two parts. The Teacher WEQ has 24 self-report items forming 8 subscales which correspond to distinct strategies theoretically reasoned to stimulate wonder in children: teacher as a role model, teacher sensitivity to wonder, exploration and experimentation, defamiliarizing the familiar, meaning making, stimulating the imagination, creating enriched environment, and stimulating contemplation. The School Policy WEQ concerns the collective part of school practices, measuring to what extent the 18 statements it consists of characterise the daily practice and values of the school. Teachers' responses indicate the degree to which they use these wonder-full education strategies during the school day, and the degree to which they perceive their school's environment as fostering or hindering the use of these strategies in their classrooms.

Here we present a study validating the Wonder-full Education Questionnaire (WEQ) in the UK sample of Key Stage 2 (children aged 7-11) teachers (data collection ongoing, planned N = 150, current n = 100). Teachers completed an online questionnaire comprised of the Teacher and School WEQ, as well as the Learning and Engagement Questionnaire investigating teachers' goal directed learning, task selection, intensive teaching, teacher responsiveness and planning the learning environment (LEQ; Keen et al., 2011; Gallagher et al., 2017), and the Tolerance of Ambiguity scale (McLain, 2009). The results of this study will demonstrate the psychometric properties of the WEQ in the UK sample, which was also expanded to the full range of the four year groups' teachers within Key Stage 2. It will further enable us to explore how the teachers' propensity to create conditions for wonder-full education relates to

other learning and teaching strategies, complementary or instead orthogonal to wonder, as well as their own personality trait of tolerance to ambiguity. We expect that the teachers' greater use of the wonder-full education strategies and the favourable school policies will be positively related with the teacher's own tolerance of ambiguity and their flexibility in teaching. The implications of this research pertain to improvement of learning and teaching conditions and rethinking approaches to quality of education evaluation.

“In hindsight, I would have asked for help earlier”: Reflective practice and thinking about how things could have turned out differently

Suzanne Egan

Mary Immaculate College, University of Limerick

Reflective practice is an important component of many areas of professional practice and multiple fields of academic study. However, little research to date has focused on the cognitive processes underlying it. The aim of the current study was to explore how counterfactual thinking about how things possibly could have turned out differently plays a role in reflective practice. Data was collected from 20 undergraduate students in Study 1 and 195 undergraduate students in Study 2 who each wrote a reflective piece on their experience of group work during an academic module. Study 1 used brief and basic instructions and asked participants to reflect on their work while Study 2 used more detailed instruction regarding reflective practice. The research aimed to examine the extent of counterfactual thinking and the different types of thoughts students generated as part of the process of self-reflection on academic work during the module. Findings showed that participants tended to generate more thoughts about what might have been possible following a negative, rather than positive, experience and a higher frequency of these thoughts was associated with higher academic grade for the course work. Few studies have explored this topic previously and we argue that a greater understanding of the cognitive processes underlying self-reflection may support the effectiveness of this practice in multiple fields in academia, as well as in professional practice.

Creative learning: Features and practices

Andé Mestre

University of Bergen

Ingunn Ness

University of Bergen

Described by Anna Craft in 2011 as a term “in search of meaning”, creative learning has continued to inspire educators, captivate researchers, and find its way into the language of educational policy makers. In this presentation we share the findings of a configurative review of creative learning and explore how the term has been operationalized in education research during the past decade. We will discuss the most common features associated with creativity-in-learning as described in the academic literature as well as the prevalent methodological strategies orienting teaching. Our results illustrate how the conceptual vagueness of creative learning has proven productive and frustrating in similar measure. Despite significant theoretical progress, creative learning remains a blanket term describing vastly different educational priorities and conceptual understandings. We suggest, however, that hidden in this conflicting picture there is a degree of localized consistency exemplified by a number of salient features, methodological trends, and existing communities of practice. We will end our contribution by looking back at some of the earliest definitions that have been offered for creative learning and will offer a reflection on the future directions for research and educational practice.

Navigating the possible: Self-regulation of the anticipated creative action

Aleksandra Zielińska
University of Wrocław

Maciej Karwowski
University of Wrocław

How do people anticipate navigating through the possible? In this talk, we will demonstrate that people not only differ in how they imagine guiding a creative action would look like but that their expectations relate to their perceived chances of pursuing a creative outcome in the future. We conducted an online study with $N = 560$ participants (59% women) where we asked them to imagine themselves as writers—specifically, as authors of a novel that was published and received enthusiastic praise from critics and readers. We prompted participants to think about and write down various details of their imagined novel, such as the color of the cover, the number of pages, the title, and the genre it represents. Additionally, participants were asked to imagine what working on this novel would look like and report on their anticipated self-regulatory behavior (Zielińska et al., 2022, 2023). We also asked participants to estimate the likelihood of being able to actually write an original novel in the future. The perceived chances for creating an original work were significantly linked with trait openness ($r = .31, p < .001$), and components of creative self-concept (Karwowski & Beghetto, 2019): creative confidence ($r = .46, p < .001$), and creative centrality ($r = .41, p < .001$). Importantly, we found that the perceived chances of writing a novel were associated with anticipated self-regulatory mechanisms, including lower obstacle expectations ($r = -.12, p < .01$) and higher scores on adjusting approach ($r = .17, p < .001$), managing ambiguous goals ($r = .17, p < .001$), emotion regulation ($r = .26, p < .001$), and readiness for sharing ($r = .25, p < .001$). Furthermore, latent profile analysis revealed distinct configurations of anticipated self-regulatory tactics, including more-and-less flexible and dysregulated approaches. Crucially, the profiles identified in this study were consistent with patterns found in previous research where self-regulation was measured retrospectively in the context of completed creative projects (Zielińska et al., under review). Moreover, the distinguished configurations differed in terms of the perceived chances of creating an original novel in the future, with people anticipating a dysregulated approach perceiving the lowest chances. In our talk, we will delve into the theoretical and empirical implications of these findings, highlighting the

importance of self-regulatory perspective in supporting possibility thinking and acting.

Self-fulfilling prophecies: Misanthropy and optimism as possibilities

Alexander D. Shenderov

Ph.D., Self-employed

Here's a possibility to consider: a positive or negative self-image of humanity may lead to, respectively, thriving or collapse of human civilization. If true, that would make influencing this self-image – education – a very important business indeed. Golem effect is the self-fulfilling prophecy of low expectations leading to low achievement. It has a mirror companion: the Pygmalion effect, meaning that setting high expectations stimulates higher achievement. These self-fulfilling prophecies appear to work at large scale, too. The positive, yes-we-can spirit of the Apollo era has brought about the crown achievement of human civilization to date: stepping on another celestial body. It's perhaps not a coincidence that the prosperous world we currently live in – including the World Wide Web – is largely enabled by the developments started during the peak of optimism in the 1960s-70s. Half-century later, despite continued improvement in all objective measures of human condition, the mood soured. It became fashionable to treat humanity with cynicism and contempt. Negativity bias is well documented, and its exploitation by media and politicians inevitably affects the rest of us. And it's hard to escape the feeling that human civilization is stagnating. As Peter Thiel has put it, “we wanted flying cars, instead we got 140 characters” (meaning Twitter messages). We have lost the Apollo program and Tevatron and the Arecibo radio telescope. In wealthy countries, birthrate is falling, - and in the US, so is life expectancy. Doomsday prepper supply industry is doing brisk business. Tech billionaires buy islands remote enough to watch the last sunset of humanity from. There was a country where the prevalent mood was that of cynicism and misanthropy. This country, the USSR, is no longer on the map – despite the vast territory and natural resources it used to have. Is the story of its demise a cautionary tale to the rest of us? Are we feeling as cynical about ourselves as Soviets did before the collapse of that empire? Are going to end up the same way? Perceptions matter. Perceptions about humans matter a great deal. After all, if you believe that you live among 8 billion locusts gobbling up the last remaining resources of the finite planet, the only rational course of action is to gobble up what you can, while you still can. Misanthropy is, quite literally, self-defeating. Meantime, the

most numerous, prosperous, healthy, peaceful and knowledgeable humankind ever inhabits this planet now. Can we develop a positive self-image, one that would encourage development of humanity rather than stagnation and retreat? A humanist hypothesis is presented. According to this hypothesis, an ambitious civilization climbing the Kardashev scale to the stars is its home biosphere's evolutionary adaptation. Space is a shooting gallery, and every life-bearing planet will one day be sterilized one way or another. The only way a biosphere can immortalize itself is to evolve a civilization that can protect it from global catastrophes - and/or plant its copies elsewhere. For Gaia today, that's us humans.

Does broadening thinking increase meaning in life?

Avi Ben-Zeev

London Metropolitan University

People often categorize instances at the basic level (e.g., tree) versus at the subordinate- (e.g., oak) or superordinate- (e.g., nature) levels (e.g., Mervis & Rosch, 1981). The basic level provides a ‘cognitive economy’ and is thus habitual (a tree can be a stand-in for other instances of its kind). We ask whether widening everyday categorization to the superordinate level would increase meaning in life. Participants recruited from MTurk (N = 97) completed a meaning in life (MIL) measure and were randomly assigned to view six images for 550 milliseconds, preceded by either a basic, superordinate, or subordinate label. Participants then completed the MIL again. A 2 X 3 mixed factorial ANOVA revealed a significant interaction, $F(2, 94) = 3.85, p = .025$. Furthermore, simple main effect analyses indicated a statistically significant increase in MIL from baseline in the superordinate ($t[46] = 2.31, p = .023$) only versus in the basic and subordinate conditions ($ps = ns$). Thus, thinking more broadly might increase eudaimonic aspects of happiness. The theory-based underpinning (and fodder for future directions) is this: priming exemplars with higher-level categories likely increases perceptions of connectedness (e.g., “A tree is part of nature, and so am I”), wonder, and promotes transcending the self.

Cultivating the possible by questioning the implausible

Stefan Gaillard

Radboud University, Nijmegen, the Netherlands

To cultivate the possible, we need to be mindful of not paying too much attention to the impossible and implausible. Overpromising and hype surrounding nanoscience and nanotechnology can result in misallocation of both public and private resources, damaged reputation and trust in the field, and can limit which alternatives come to mind for technological implementation because of a single-minded focus on just one possibility. Alternatively, one could argue that overpromising can help the field forward, bringing in funding and enthusiastic researchers who will contribute to solving research problems.

There is a fine line between enthusing promises, which may serve to cultivate the possible by rallying people and resources around a common cause, and overpromises, which present a particularly optimistic albeit implausible vision for one technology and, consequently, shift focus away from visions about other technologies. This can lead to opportunity costs, but also runs into the problem of path dependency, i.e. when the choice has been made for one technology over the other such that the development or implementation of other technologies becomes increasingly difficult due to dependence on the overpromised technology. Other possibilities for the future may seem impossible or may not even be contemplated as possible due to focus on impossible or implausible promises instead.

It is therefore important to critically assess promises that we come across. However, often there is information asymmetry between the promiser and the promisee; the promiser often knows more about the promise than the promisee. And while it does not take much for a promiser to make (over)promises, promisees need time and effort to gather additional information to assess promises.

To combat this problem, I provide a conceptualization of overpromising and its relation to other types of overpromising, and propose a framework which

allows promisees not only to be more critical of promises, but shows them *how* to be more critical, thus allowing them to gather the additional (required) information in a more efficient manner.

Finally, I present a possible tool I'm developing to actively look for overpromises which are continuously iterated over time, to detect which conceptions of a possible future are continuously promised and thereby draw attention away from other possible and perhaps more plausible conceptions. The tool consists of a search query which when applied to a corpus detects which predictions about the future have been made over time and can be the starting point for reassessing and cultivating the possible by allowing us to question the implausible.

Complex thinking for a science of possibilities

Ana Teixeira de Melo

Centre for Social Studies, University of Coimbra

The need for transformative change is increasingly recognised at both local and global levels. We need to bring forth worlds affording conditions of well-being and justice, peace as well as individual and collective flourishing for all beings. In this presentation, we approach the necessity of exploring new worlds of possibilities, moving from the sciences of “what is” (from particular perspectives) towards the sciences of “what could be”: a science of possibilities, strongly coupled with and grounded in “real-world” contexts. We build upon a proposal for operationalising complex thinking as a mode of thinking that is isomorphic with the nature of complex systems (e.g., non-linearity; context dependence; recursivity; emergence), exploring the implications for how science can bring forth new worlds through new modes of coupling with its subjects and realities. We explore how the potential of complexity to generate surprise and novelty can support creative and abductive leaps into possible new worlds, opening new landscapes for experiencing, knowing and acting. We discuss the implications of the practice of (these relatively more) complex (modes of) thinking for creative and abductive interdisciplinarity and transdisciplinarity (CAID) and for the training of researchers, considering which processes, methods and tools could support a science of possibilities.

A user centred approach to fostering sustainable creative mindsets in product design education through the development of pre-ideation skills

Dermot McInerney
University of Limerick

Creativity is considered fundamental to all design disciplines; however, the teaching of creativity in design education is often implicit rather than explicit. Furthermore, the tools and methods of creativity have been proven to be ineffective for inexperienced users, who demonstrate a preference for unstructured creativity methods such as relaxed attention, and dislike of structured creativity tools. The aim of this proposed research is to re-imagine how we foster sustainable creative mindsets in product design students through a user centred approach in the development of pre-ideation skills. Pre-ideation activities such as, question asking, design inquiry, problem exploration, problem construction, and problem framing, have a positive correlation with creativity but get little attention in design education. This research will also consider the development of sustainable mindsets (mind-shifts) in which students positively alter creative perspectives and creative thinking over time.

Competitive mindset in school

Jean-Christophe Goulet-Pelletier

University of Ottawa

In school, students' have goals which sometimes align with their academic environment, but not always. Some students may strive to achieve a specific career, explore ideas, have fun, be accepted by fellows, improve their skillset in sports or arts, or be more fluent in a language. Although extensive research has been done on goal setting and goal progress, the creative ambitions of individuals — in particular their exploration tendencies — have not been integrated in goal models. The current presentation proposes and tests a new framework composed of three interacting mindsets, namely competition-, criterion-, and exploration-driven mindsets. It is proposed that any activities are approached with more or less competitive intentions (competition-driven), a desire to meet externally defined criterion of success (criterion-driven), and a desire to explore possibilities (exploration-driven). The current paper investigates the utility of this framework through Latent Profiles Analysis (LPA) with a population of university students. The profiles were subsequently used to predict a variety of academic and creativity outcomes. From a sample of $n = 283$ university students, we found five profiles. A profile high on all three mindsets endorsed high approach and avoidance achievement goals, academic self-concept, and performed well on the creative divergent thinking tasks. In comparison, a profile only high on exploration showed generally lower endorsement of the academic outcomes, whereas a profile low on exploration but high on the other mindsets showed generally high endorsement of the academic outcomes. During the presentation, I discuss the pursuit of external criterion of success in school against a desire to explore and their effects on creativity.

Developing a fluency in the language of possibility in the face of inertia and resistance: A transformative professional learning meta-model for hope

Eimear Holland

Dublin City University

Purpose: Increasingly, professional learning (PL) designers and facilitators are expected to acknowledge and address the complexity of PL implementation for teachers, who, facing potential resistance and /or inertia, become overwhelmed by a sense of professional hopelessness. The paper explores how teachers, having developed a fluency in the ‘language of critique’ and subsequently a critical consciousness of barriers to PL implementation, can avoid ‘learned helplessness’, by developing a fluency in the ‘language of possibility’ and a sense of ‘learned hopefulness’. This paper explicates how the meta-design of a ‘Transformative PL Model’ can prospectively balance bi-lingual capacities, assisting teachers to see their world through a hopeful lens and in so doing, prevent PL washout and waste of capacity, quality and change. Methods: This paper examines the partial PL journey of 12 cooperating physical Education teachers who were hoping to implement Teaching Council Guidelines on School Placement (2013). Engaged in a participatory action learning action research mentoring community of practice (PALAR M-CoP), they attended four two hour workshops over the space of 13 months. Whilst different PALAR processes and activities were adopted at various stages of the journey, for the scope of this paper, those informed by Hope Theory which supported teachers to develop a critical motivation and fluency in the language of possibility are reported on, namely: ‘problem exploration’, planning for ‘problem solving’ (goal setting and re-goaling) and ‘evaluation (continuous)’. Data were generated through: questionnaires with stimulus recall, pre-workshop questions, workshop observation, workshop artefacts, reflective journals, learning journey plans, and extended focus group discussions. Data were analysed via constant comparison of codes and categories. Findings and Conclusion: A ‘fluency in the language of possibility’ was developed through a variety of transformative PL processes, which sought to develop a problem solving mindset, a coping intelligence and a critical motivation to enact change. Processes which the community engaged with collaboratively, included: problem exploration, conflict management, resource mapping, stakeholder analysis, goal conceptualisation,

target setting and action planning, (re-)evaluation, all the while focusing upon the 'adjacent problem; and 'adjacent possible'. As teachers yarned and updated one another about their contextually described triumphs, they co-reflected upon implementation strategies, co-constructing how they might be applied, adapted, prepared for or paused for better time. This study found that such PALAR processes and activities armed the teachers with an arsenal of solutions for setting targets to overcome resistance and inertia, and in so doing, raised their perception that they may be able to influence their PL outcomes. Data analysis concluded that cooperating teachers transcended from 'submissive' to 'pre-critical' consciousness and as a result, no longer felt that their social world was constructed as normal and unchanging but instead, expressed a sense of dissatisfaction accompanied by a belief that change may be possible and that their PL efforts may have some impact.

Keynote Address

What's my motivation?

How understanding characterisation can help model possibilities

Kim Wilkins
University of Queensland

Some of the complexities of foresight arise from human actors: possibilities are always contingent on the socio-material circumstances of the people who make choices that shape those possibilities. Defaulting to the probable can mean we reach for under-nuanced stereotypes while trying to predict human choices in a given scenario. Borrowing creative writing techniques to imagine backstory and extrapolate motivation may enrich foresight capability. If anticipating possibilities around human actors were laid out as an equation it might look like this:

Given [back story], if [circumstance], the character will [X]

X is the unknown part of the equation, and where the most value in modelling and foresight may be gained. There may in fact be many different variations of X, as this is an open-ended rather than a closed equation. Best-case scenarios, worst-case scenarios, and medium-case scenarios are all valid tools for analysis.

What goes in the 'circumstance' part of the equation may be determined by the parameters of the research or experiment the creators are conducting. This paper will lay out the theory of characterisation, show its application to foresight, and engage the audience in a simple collaborative game around motivation, pressure, opportunity, and anticipating possibility.

Biography

Professor Kim Wilkins researches in the field of creative writing, book culture, and imaginative technology foresight at The University of Queensland, Australia. She is also a prolific and award-winning creative writer, having published more than 30 novels and been translated into more than 20 languages. She has held grants from the Australian Research Council and the Commonwealth Department of Defence

Science and Technology Group. She has a particular interest in the social and creative opportunities associated with science fiction and fantasy fiction. Her most recent book is *Genre Worlds: Popular Fiction and 21st-Century Book Culture* with Beth Driscoll and Lisa Fletcher (Massachusetts UP). Along with Helen Marshall, she runs the WhatIF Lab at The University of Queensland, which provides contract research and consultancy for research teams and organisations who want to find new and imaginative perspectives on problems.

*Wednesday, 13:45 - 14:30
Room Possible (AHC.SG05)*

The Creative Ireland Programme – Measuring impact: Creative schools

Regina Murphy
*Institute of Education,
Dublin City University*

Eemer Eivers
*DCU Futures,
Dublin City University*

Mags Walsh
*Programme Director for
Creative Schools at the
Arts Council of Ireland
(moderator)*

Creative Schools is a flagship initiative of the Creative Youth strand of the Creative Ireland Programme to enable the creative potential of every child. Creative Schools is led by the Arts Council in partnership with the Department of Education and the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media. In 2023 Dublin City University will publish an evaluation of the programme by Dr Regina Murphy and Dr Eemer Eivers. The evaluation draws on the experiences of a range of participants in the programme including teachers, creative associates, children and young people. This presentation will look at the challenges that surface when you seek to measure impact.

The Creative Ireland Programme – Reflections on the art-science-engagement nexus

Alexandra Revez
Research Fellow UCC

To meet the complex challenge that climate change represents includes among other things the promotion of interdisciplinary exchange, multi-stakeholder dialogue and creativity in order to reframe knowledge across the art-science-engagement nexus. We provide insights and examples of real-world innovations in this space drawing from a deep dive analysis of the Creative Climate Action Programme in Ireland. We will follow this overview with a deeper consideration of how the creative tools can help re-frame our perspective and our visions of change, the future and sustainability. Some of the areas of enquiry we hope to explore include:

- Evaluating creative approaches to behaviour change and social practice
- The value of enabling a collective culture of care
- Pressures, drivers and/or opportunities to trigger sustainable changes and innovation in practical contexts

The Wonder Chart: a new validated measure of primary school children's wonder

Marina Bazhydai
Lancaster University

Wonder is an emotionally laden mental state of pondering with astonishment and excitement about embarking on deeper inquiry about an encountered phenomenon (Bazhydai & Westermann, 2020; Gallagher et al., 2015; Glăveanu, 2021). Empirical studies of wonder have been stymied by the lack of valid and reliable assessment. In particular, the investigation of children's wonder is in its infancy, hindering progress in understanding the unique role of wonder in education and psychological well-being as theorised in philosophy and education fields (Schinkel, 2020; Weger & Wagemann, 2018).

Here we present a newly developed measure of wonder in upper primary school children, originally designed and validated in the Netherlands (Broekhof & Schinkel, in prep) and recently in the UK (Bazhydai, Barker, & Rothwell, in prep). The Wonder Chart is a digital self-report instrument designed to map children's sense of wonder. It consists of ten vignettes (5 written and 5 video-based) spanning across the topics of nature, special achievements, technology, art, and malicious behaviour. These were determined by qualitative research designed to identify affective, cognitive, and behavioural aspects accompanying the experience of wonder in children (Broekhof & Schinkel, in prep). Each vignette is followed by ten questions related to various experiential aspects of wonder, such as "I am surprised"; "I am silent for a moment".

In the UK-based validation study, the participants were 436 children aged 9-11. The study comprised of measures of wonder, curiosity, creativity, and the need for cognition personality trait, as well as caregiver-report measures of their children's curiosity and the Big 5 personality traits. The results indicate the Wonder Chart's good psychometric properties, as well as convergent and discriminant validity. The internal consistency was excellent ($\alpha = .904$), with high individual vignettes' and moderate to high inter-item correlations. Children's wonder index as measured with the Wonder Chart was moderately positively correlated with self-reported wonder, supporting its convergent validity, but unrelated to anger, happiness, sadness, or fear, supporting its

discriminant validity, and indicating that unlike other emotions, wonder was distinctly captured with the Wonder Chart. Further, children's wonder was positively related to their self-reported measure of attitudes towards curiosity, desire to resolve ambiguity in a behavioural measure of curiosity, need for cognition, and creativity. Wonder was unrelated to children's propensity to choose more ambiguous stimuli as a measure of curiosity and to the caregiver-report measures of curiosity and personality subscales of conscientiousness, neuroticism, agreeableness, extraversion and openness to experience. These results will be discussed in light of the methodological considerations related to the Wonder Chart, its relationship to personality traits, as well as the measures of curiosity and creativity used in the study. Furthermore, the conceptual links between wonder, curiosity and creativity will be considered (Bazhydai & Westermann, 2020; Glăveanu, 2019). In sum, the Wonder Chart shows promise as a reliable and valid measure of children's wonder and may be used in future studies examining the role of wonder in children's learning and well-being.

Becoming curious: How can we talk about positive ignorance-based processes

Selene Arfini

University of Pavia, Department of Humanities, Philosophy Section

There is a gap in the English language that is interestingly telling of our ability to speak about ignorance. While at least a few words can describe how agents acquire knowledge – through learning, studying, insight, and understanding – we do not have the same verbal capacity to describe how agents become ignorant. At best, we can say people forgot or unlearned something, or we can say that they ignore something, but these words do not really describe the processes in which ignorance is the outcome. In fact, they are only used to describe their final epistemic state. The question at this point is: does this lack of terms reflect a lack of epistemological possibility or a lack of lexicon? Are we unable to progressively become ignorant, or are we only limited in the way we speak about it? Moreover, does becoming ignorant only encapsulate an (epistemic or moral) negative process? In my talk, I will address these questions by discussing “to-ignorance processes” – which I will describe as cognitive processes that allow people to shift from a state of partial knowledge or unaware ignorance to another state of ignorance. In particular, I will focus on positive to-ignorance processes, which I argue support curiosity, surprise, and wondering, maintaining that if we can frame our ignorance as not only the result of a process but a crucial part of our reasoning, we could understand more how cognitive agents can productively approach new possibilities.

Testing what's possible: A new scale for Possibility Thinking

Ron Beghetto

*Arizona State
University*

Vlad Glaveanu

*Dublin City
University*

Maciej

Karwowski
*University of
Wroclaw*

Wendy Ross

*London
Metropolitan
University*

Experiences of the possible are defined by a complexity and open-endedness that, for many, defy measurement. And yet, like any other phenomenon, our engagement with possibilities leaves cognitive, emotional, social and behavioural 'traces'. Sociocultural approaches consider this kind of engagement in terms of a) becoming aware of what is possible, b) exploring what is possible, and c) maintaining a state of openness to and excitement about the possibilities that emerge in the interplay between awareness and exploration. Taking these as key dimensions for 'possibility thinking' (PT), this talk presents preliminary evidence for the validity and reliability of the newly constructed Possibility Thinking Scale (PTS). Based on two extensive studies conducted on a sample of Polish and English-speaking participants, we analyze the factor structure of the PTS, as well as its associations with creative self-concept and personality factors of openness and extraversion. Our results show that, while some future scale alignments might be necessary, it provides a promising way to measure various dimensions of PT. Implications for a range of domains, from education to organisations and society, are discussed in the end, as well as for how we might conceive of measurement in the emergent, transdisciplinary field of Possibility Studies.

There's no place like home: Nationality and statehood in post-apocalyptic fiction

Cara Linley

University of Canberra

Post-apocalyptic fiction presents worlds experiencing intense crisis and significant change. Often central governments no longer exist which means that there are no longer any entities to manage and rule nation-states. Without the national borders that contemporary nation-states traditionally defend, individuals and communities no longer have the benefit of a third party to determine where they are and are not entitled to own and control land. This means that they often struggle to identify and allocate rights to land amongst fellow survivors. The extended thought experiments that appear in post-apocalyptic fiction explore these struggles and often reflect a particular tension in determining how relevant nationality and citizenship of previously existing nation-states should be in making decisions around resource allocation. Despite often containing general statements acknowledging that these states no longer exist, there are many examples in the fiction where characters continue to rely on and accept claims to ownership and control based on nationality. This provides insights into serious non-fictional problems such as climate change and climate change “refugees”. At the same time, there are small signs of more radical thought in some texts. Some contain notions of transferred governmentality whereby national governance follows populations as they move as opposed to staying within fixed boundaries. Others explore the possibilities of a world where mobility and nomadic lifestyles have become normalised. In doing so, readers may be able to start to imagine worlds where national boundaries are less relevant.

Landing possibilities – a transdisciplinary perspective

Hossai Gul

TD School

University of Technology Sydney

Bem Le Hunte

TD School

University of Technology Sydney

This presentation explores and analyses a selection of stories from transdisciplinary practitioners – stories that ask knowledge workers how they take the possibilities in their practice from idea to realisation. Taking the Implementation Science lens on Possibility Studies, we will focus on drawing on themes that our diverse disciplines enact in order to implement innovation or apply knowledge in practice. Implementation Science is an interdisciplinary field that provides us with mega theories and frameworks in the form of workable tools for knowledge translation. Many disciplines have answers and ways of seeing the implementation problem. Indeed, implementation itself is a wicked problem and there is no single solution. Yet, as knowledge makers, it is every person's business to translate their knowledge into action – to take the possible and turn it into impact. This presentation combines narrative methods with Implementation Science and a number of other disciplines to ask: how do we land possibilities into reality from our disparate practices – how do we realise our possibilities?

From anticipation to Design Fiction: How to create our future

Cynthia Bagousse
Aix-Marseille Université

As human beings, we are endowed with anticipation capacities necessary not only for our cognition (Riegler, 2001) but also more broadly for the construction of our culture (Vale et al., 2012). We are able to spontaneously envisage so-called 'conventional futures' (Voros, 2006), i.e., probable futures (what will probably be), preferable futures (what should be) and even plausible futures (what could be). In contrast, making potential futures (what is conceivable up to the limits of possibility) is less accessible at first sight. Probable futures explore the possible evolutions and consequences of current trends. Preferable futures, which are more emotional, express our desires for the future and form possible utopias and hopes for change (Badaan et al., 2022; Fernando et al., 2018). Plausible futures are influenced by our current understanding of the world and reflect what we consider reasonable. Finally, potential futures, which appear more difficult to conceive, require being able to extend our reflective and imaginative cognitive functioning to the limits of possibility. It is necessary to perform a thinking exercise that links creativity and criticism by taking advantage of the novum and estrangement of situations thus imagined (Suvin, 1979). According to Arthur C. Clarke, a science fiction author, the only way to discover the limits of the possible is to go beyond them into the impossible. Such testimonies of science fiction authors are of interest since when we read, write or watch science fiction, we shape a mental representation of the fictional universe by drawing on our memories and performing associative reasoning. This literary and cinematographic genre implies an acceptable irrationality, the focus is on reality, a kind of shifted but rational ontology, confronting us with something plausible and compatible with our world. *The Black Mirror* series, for example, invites the viewers to reflect on the society that surrounds them, by offering them the possibility of taking an introspective look, and more globally, a social and societal look at the use of new technologies. Thus, the mere fact of considering another situation than the one we know, transports us to a kind of thought experiment in which our creative and critical thinking are activated. It is therefore not surprising that the French Army has set up a RED TEAM, composed of science fiction authors and scriptwriters working closely with scientific and military experts, with the aim of imagining potential threats for the 2030-2060 horizon, whether technological, economic, societal or

environmental areas. Science fiction shifts the limits of the plausible by increasing the cursors of the possible by freeing itself from the impossible, with the freedom to consider why it could be possible. Many companies or associations are trying the adventure of possibilities by using the prospective method of Design-Fiction to explore the possibilities of the future (Bleecker, 2009). Design-Fiction, starting from our essential cognitive characteristic, anticipation, exploring the game of possibilities as far as possible by using a diegetic artifact from science (Bréan, 2020). We will argue in this paper that taken broadly, Design-Fiction is not only a way to innovate but more generally to critically think about our future and to build new possible futures, from individuals to societies by bringing back the imagination of tomorrow into our way of thinking (Rumpala, 2010).

**If you don't have hope, where is your future?:
An interpretative
phenomenological analysis of the experience of
living with terminal cancer**

Lucy Hayden
Dublin City University

Simon Dunne
Dublin City University

Pamela Gallagher
Dublin City University

Each year, over 30,000 people die in Ireland, with approximately a third of deaths caused by cancer, with a large number of these following a terminal cancer diagnosis. For terminal cancer patients, the awareness of their approaching death may lead to emotional, social and spiritual distress as patients attempt to come to terms with their advancing illness as they move towards death. This study aimed to investigate the phenomenon of living with terminal cancer. Ten (N = 10) semi-structured interviews were conducted with terminal cancer patients to explore their experiences of living with terminal cancer. Following interpretative phenomenological analysis, five group experiential themes were identified including: gaining an increased awareness of time, navigating through an identity crisis, finding comfort through connections, recovering control in uncertain times, and journeying with hope. The experience of terminal cancer reflected a dynamic journey with hope from the perspective of participants. While initially several participants highlighted that they felt hopeless as they learned about their terminal condition, as they continued to live with terminal cancer, hope was identified as an important aspect of their lives that helped them to live well. Hope helped participants to move forward in times of challenge and despair and to live life with optimism, despite the uncertainty of the future. The findings of this study may be used to develop interventions in care services and for the introduction of psychosocial and spiritual support teams being introduced.

Symposium

Transdisciplinary approaches to opening new possibilities for research and creation: examples from the circus arts

Marion Cossin (organiser)

*Circus Arts Research, Innovation and Knowledge Transfer (CRITAC) /
National circus school of Montréal*

Talk 1. Facilitating equity, inclusion and belonging through circus creation

Melanie Stuckey

National circus school of Montréal

Since its inception, innovation has been considered a core component of the circus. Circus artists aim to relate to and create an inclusive space with the audience through their performance, but since innovation in circus tends to be in the realm of the extraordinary, they may paradoxically create a space of alienation or exclusion. Social innovation, on the other hand, strives to solve social challenges and can be applied in circus to challenge traditions, shift the perspectives of the audience, and create a feeling of belonging. We created a framework for equity, inclusion, and belonging in performing arts and tested it in two different contexts: 1) a collaborative research-creation project with students at a professionalizing circus school; and 2) a hand-to-hand duo exploring techniques to challenge traditional gender roles in partnering performance. Testing in both contexts supported the use of the framework to facilitate innovation that prioritizes equity, inclusion, and belonging.

Talk 2. Uniting scientific research and lived experience of illness through the circus arts

Naila Kuhlmann

National circus school of Montréal

Introduction: Traditional means of knowledge dissemination within health research are inaccessible to non-academic audiences, hampering meaningful dialogue with and uptake by community stakeholders. Moreover, the subjective experience of illness is overshadowed by the disease-and-cure focus, contributing to social stigmatization of conditions such as Parkinson's disease

(PD) and dementia. Participatory, arts-based approaches offer potential to integrate diverse stakeholders in research, and to enable wider audiences to engage with the findings. Objectives: Piece of Mind brought together performing artists (circus acrobats, musicians, dancers), neuroscientists, people with PD and/or dementia, and their caregivers to co-create multi-media performances based on scientific research and lived experience. We aimed to 1) facilitate knowledge exchange and empathy between diverse stakeholders through creative collaboration and 2) co-create performances that could engage a wide audience on an intellectual and emotional level. Methods: Participants met regularly on Zoom over a 4-month period, in which creative, embodied approaches were used to explore scientific concepts, facilitate discussion, and identify key issues around PD/dementia to represent in the performances. Emergent themes were built on through structured improvisation, virtual and in-studio collaborations, and work-in-progress presentations. The resulting performances were filmed and disseminated on YouTube (>1600 views), with supporting materials to provide further context. To evaluate the potential of the performing arts as a knowledge translation tool, we examined both the process and the product. Semi-structured interviews were conducted to assess the impact of the creative process on participants, and an online questionnaire was used to evaluate the impact of the performances on viewers. Results: Our use of creativity and embodied approaches allowed participants to leave their comfort zones and cross disciplinary boundaries to engage with one another through curiosity and active listening, and move towards a common goal while integrating multiple perspectives. The performances elicited strong emotional engagement, promoting increased understanding of PD and dementia, and empathy towards people living with these conditions. Conclusion: An arts-based approach, including the unique affordance of the circus arts, allowed us to bridge the experiences and knowledge bases of disparate stakeholders. By presenting an accessible and emotionally-engaging perspective on PD / dementia research and lived experience, Piece of Mind acts as an important complement to traditional means of knowledge production and dissemination.

Talk 3. How does technological innovation offer new potential for circus creation

Marion Cossin

National circus school of Montréal

Technological innovation in circus falls into two spheres: acrobatic equipment and digital technologies (interactive technologies, AR/VR, etc). Circus

equipment represents an industry requiring innovations, as it can play an integral role in improving circus performances. The creation of new circus equipment presents many challenges and is therefore little. The transition of a new circus equipment to a well-established discipline practiced all over the world has been rare in the last few decades. A qualitative approach with companies and experts in Quebec allows us to better understand the ways and barriers to the innovation in circus equipment. The thinking developed in this article can help identify the innovation needs and opportunities achievable through technological advances. The circus apparatus can become a space for innovation and full play: it combines aesthetics, material aspect and performance tool, allowing the body to express itself. The advent of immersive technologies, such as virtual reality, has offered both artistic and economic potential for creating virtual and hybrid performances, but it is unclear how this radical change in format can impact the engagement of the audience. To answer this question, we measured the impact of different performance formats on audience attentional and emotional engagement. We evaluated audience reactions to in-person and virtual performances, using a quantitative approach, through physiological recording, and qualitative, questionnaires on two shows. Conducting this research in parallel with the companies' creative process has provided important insights into the audience experience and may help the companies adapt to the digital age.

Community Engaged Learning to transform, innovate and capacitate

Maura Adshead
University of Limerick

Lindsey Liston
*Technical University
Shannon*

Sinead McGilloway
Maynooth University

Background: Higher Education Institutions (HEIs) are intermittently involved in projects designed to support communities experiencing disadvantage. The UL-based Community Wellness, Empowerment, Leadership and Lifeskills (CWELL) initiative, is a novel, flexible, two-year curricular programme co-created with community stakeholders to help promote community engagement and personal, social and community growth, wellbeing and development, while equipping ‘non-traditional’ students with a university qualification (Diploma/MA). Aims: The aim of this paper is to present some key findings from the first formative (qualitative) evaluation of the CWELL initiative undertaken in 2022. Method: A total of 24 key stakeholders including current and former students and a range of community partners, were invited to participate in one-to-one interviews and focus groups in order to assess their views and experiences of CWELL. Data were transcribed in full and subjected to a Reflexive Thematic Analysis (Braun and Clarke, 2019). Results: Six main themes were identified relating to: curriculum content fit and attendant support structures; engagement with the community (including university civic engagement); educational access/ participation and skill building; career progression; health and wellbeing; and social capital development. Overall, the curriculum content and design were positively received and, in particular, the unique integration of community-based and academic expertise, as well as the opportunity for experiential learning and volunteering. The role of the CWELL Community Facilitator was considered pivotal in terms of providing much-needed practical support, encouragement and confidence-building for the students. All participants identified CWELL as having ‘opened the door’ into Third level education for early school leavers, while promoting professional skills development and positive intergenerational role modelling for their families and communities. The fully subsidised course fees were considered paramount. However, there was a clearly identified need for a greater focus on career progression pathways and career guidance within the current curriculum. CWELL was also seen as an important facilitator and

mechanism of community-university engagement, although there was a perceived need for greater continuity on the part of the university in this regard. Importantly, students also alluded to improvements in their physical and mental health as a result of participating in the programme, with recurring references to enhanced self-esteem, a strong sense of belonging and positive lifestyle changes. Another recurring theme was the role of CWELL in building social capital in some of the most marginalised communities in the country through, for example, equipping students with the skills and knowledge to 'lead change' and in enabling them to identify and develop community-led solutions. Notably, CWELL students have co-designed and delivered 10 community projects (of varying sizes) with community partners since 2018. Conclusion: The findings from this, albeit preliminary evaluation, suggest that CWELL is making an important and potentially transformative contribution to addressing social inequality and building social and educational capital in marginalised communities. It successfully attracts, and engages with, students who are typically excluded from participation in higher education, while the programme also provides an interesting and useful model in closing the gap between universities and their hinterland communities.

P2P in-TEEN-tional Coaching

Nune Magoyan
MAGOYAN CoNexus

The novelty of peer-to-peer intentional coaching for young adults is that it empowers them to take charge of their own personal and professional development in a supportive, non-judgmental environment. Peer-to-peer coaching is a unique approach that allows young adults to learn from and support each other. This is especially important in today's rapidly changing world where traditional sources of guidance and support may not be as accessible or relevant, or may not be as welcomed from adults. By equipping young people with coaching skills, we not only help them achieve their own goals, but also empower them to become leaders and agents of change in their communities and institutions. This was an exciting opportunity for young people to develop the knowledge and skills they needed to succeed in life and to cultivate a self-leadership mindset. As coaches and mentors, we have the opportunity to contribute to society by developing the next generation of leaders when they are just beginning their adult lives, by instilling a coaching culture and approach at the right time. My Work in Progress session showcases a unique and innovative approach to developing young adults' and teenagers' specific skill set through coaching, mentoring, and supervision. The pilot program was successfully delivered among IT programming students in Armenia. By empowering young adults to become peer coaches, this pilot program not only provided them with valuable coaching skills and experiences but also offered an opportunity for their peers to develop their own skills and achieve their goals. Furthermore, the program addressed the challenges and needs of young adults in today's society. As we know, young adults face various challenges such as navigating their career paths, building social connections, being productive in their studies, and managing their mental health. By equipping them with coaching skills, they better coped with these challenges and helped their peers to do the same. My session aligns with the conference theme of fostering individuals' and groups' sense of the possible, as it provides a practical and effective way to develop the knowledge, skills, and contributions of young adults. This is a long-term investment in the future of our society and education. By sharing my experience and insights, I hope to inspire and encourage fellow education, coaching and other professionals to explore the

possibilities of peer coaching among teenagers and young adults and its impact on developing human capital.

An alternative perspective on student engagement in higher education

Paula Alvarez

Mondragon University

The cooperative structure oriented towards social transformation to be found at Mondragon University provides an alternative model to public or private higher education institutions. At Mondragon University staff, students and local institutions have a say in decision making, and there is an emphasis on training for active participation in social transformation. The way of working at the university prioritizes the development of skills such as creativity and critical thinking. One innovative project has focused on analysing the relationships between the development of these skills in students and their degree of engagement. Engagement is a complex construct that encompasses research into practices linked to academic success. In the present project, student engagement is understood as the bond that is generated between the institution and the student and that depends on both external and internal influences and which is measurable in cognitive, social, affective and behavioural terms. Student success is re-examined and conceptually linked to active citizenship in the present project, along with the meaning of the term engagement. The results obtained to date have made it possible to identify a relationship between this holistic view of engagement and the confidence students show in their capacity to be involved in creative and critical processes. This redefinition of the term engagement might provide a new perspective for educational structures and practices leading to enhanced social impact.

Ecology and education. Notes on Aldous Huxley's *Island*

Elisa Fortunato

Università degli studi di Bari

Aldous Huxley gained fame as the most cultivated and complex writer of his time. After the publication of *Brave New World* in 1932 his work became increasingly difficult to categorize as it began crossing the boundaries that separate art from science, religion and mysticism. Throughout his literary life he was concerned with one question, that which his grandfather (the famous biologist T.H. Huxley) called “the question of questions for mankind”: what is the place “man occupies in nature [...]. Whence our race has come; what are the limits of our power over nature, and of nature’s power over us; to what goal are we tending?” (in Deese, 2015). It is not surprising therefore that, highlighting this ecological thread, Peter Mortensen entitled his essay on Huxley *Tripping Back to Nature* (2016) and Dana Sawyer in 2008 called him an ‘environmental prophet’. What is more interesting is the label that Aldous Huxley gave to the environmental and ecological issues he dealt with; he saw them as by-products of our world view, anticipating what environmentalists later defined as the ‘belief paradigm’ of our culture (Sawyer, 2008). This paper studies the link Aldous Huxley draws between this belief paradigm and the value he assigns to education in his last novel *Island* (1962). It is in this ‘utopian’ novel, in fact, that he eventually explores in greater depth the themes addressed in his previous essay-writing (from *Ends and Means* to *The Human Situation* collection of essays), in particular the encounter between humanistic and scientific culture and Indian philosophy through what he calls “education for freedom” (influenced especially by his studies of Montessori’s ‘cosmic education’, Skinner and Dewey). Throughout the novel, in fact, the protagonist finds himself listening to the history of the constitutional monarchy of Pala, the name of the island, discovering that its educational system is based on a continuous learning process in which mind and body have the same relevance and that aims to train individuals instead of specialised technicians (such as: physicians, mathematicians, economists, philosophers, and so on). In a sort of Morrisean dream, Huxley depicts a society where thanks to the education system the gap between soul and body has been bridged, hunger and overpopulation do not exist as a result of birth control and violence and crime have been defeated

through conditioning and drugs. In this half-utopian, half-dystopian novel, the author combines ecological concerns, scientific progress, Western consumerism and education to build a unique picture which is, arguably, his most important legacy to future generations (Claeys, 2022).

Wednesday, 16:15 - 17:00
Room Possible (AHC.SG05)

Keynote Address

The relational route to unleashing the potentials of education

Kenneth J. Gergen
Swarthmore College

In addition to its numbing effect on learning, and its toll on student wellbeing, public education fails to prepare students for the rapidly emerging challenges of global survival. The existing educational system is largely based on an industrial model of over a century ago. Vital to the future is a move from the factory model to a relational orientation to education. As I will propose, relational process is the major source of knowledge, reason, and value. While traditional education stifles the potentials of this process, by nurturing it we open enormous potentials for inclusive, variegated, engaged and future-promising education. Special attention will be directed to current and emerging practices contributing to these ends.

Biography

Kenneth J. Gergen is a Senior Research Professor in Psychology at Swarthmore College, and President of the Taos Institute. He is internationally known for his contributions to social constructionist theory, technology and cultural change, and relational theory and practice. His major writings include, *Realities and Relationships*, *The Saturated Self*, and *Relational Being: Beyond Self and Community*. His most recent book is *Relational Evaluation: Beyond the Tyranny of Tests* (with Scherto Gill). Gergen is listed among the 50 most influential living psychologists in the world, and has received numerous awards for his work, including honorary degrees in both the U.S. and Europe.



Thursday

Thursday, 09:30 - 10:00
Room Possible (AHC.SG05)

Keynote Address

Cultivating the possible

Wendy Ross

London Metropolitan University

In June this year, *Possibility Studies and Society* launched with a special double first issue with invited contributions from many invited scholars. In this talk, I shall introduce the themes that emerged from that polyphonic mix. I shall invite you to reflect on how your research supports and extends some of the foundational themes of *Possibility Studies* and maybe adds some new ones.

With the participation of

Stefan Gaillard

Radboud University in Nijmegen

Thursday, 10:00 - 10:30
Room Possible (AHC.SG05)

Keynote Address

Generative AI and the possible: A new dawn or a new dusk for human creativity?

Constance de Saint Laurent
Dublin City University

The recent advances in generative AI, especially in the form of Large Language Models (LLMs), have opened up a whole new universe of possibilities. Creating masterful artworks or writing an entire novel in minutes now seem to be at everyone's fingertips. Yet they have also raised a host of worrying questions. Will Generative AI replace human creativity? Will most of our jobs become obsolete? Are we creating machines that we will not be able to control? While some caution is more than warranted, a lot of our fears are misplaced. In this talk, I propose to go over some of the most common worries and misconceptions about Generative AI and to try to dissipate some of them. Instead, I will outline a series of questions we should start asking ourselves if we want to anticipate some of the risks Generative AI poses and take full advantage of what it has to offer.

Biography:

Constance de Saint Laurent is a researcher at Dublin City University, Ireland. She works on social thinking and technology as well as on the impact of technology and societal changes on people and organisations. She has previously carried out research on social media, misinformation, collective memory, and representations of alterity, some of which has been published in the open access book *Social Thinking and History: A Sociocultural Psychological Perspective on Representations of the Past*.

‘Now I understand what being creative looks like’: Empowering preservice teachers to become creative inclusive practitioners

Irene White
Dublin City University

Fiona Gallagher
Dublin City University

Peter Tiernan
Dublin City University

Since the mid-1990s, several countries, including Ireland (DES, 2015; NCCA, 2015; DAHG and DES, 2013), have foregrounded creativity in policies and action plans for education. While it is widely acknowledged that teachers play a critical role in the implementation of these policies, the need for a more explicit emphasis on fostering creativity in teacher education and development and pedagogic practices, has been identified (Anderson et al. 2022; Huang et al. 2021; Patston et al. 2021). Paek and Sumners (2019) contend that teachers’ perceptions of their own creativity and their self-efficacy for teaching creativity have significant implications for fostering creativity in the classroom. Many researchers (Jeffrey and Craft, 2004; Craft, 2005; Cremin, 2017) are of the view that teaching creatively is integral to teaching for creativity. Teachers’ perceptions of their own creative capability and of their capacity to enhance young people’s creative development, therefore, have a significant impact on how creativity is promoted in the classroom (Cremin, Barnes and Scoffham, 2009; Paek and Sumners, 2019). Accordingly, there is a need for teachers, particularly student teachers, to understand the nature of creativity and appreciate its pedagogical value (O’Brien, 2012). This paper reports the findings of a research study which focused on developing student teachers’ awareness of their own creative ability and of the teacher as a creative professional in the post-primary classroom. The study was based on student and educator experiences of a module entitled: ‘Fostering Creativity and Innovation: Digital Media, Drama and Linguistic Responsiveness in Professional Practice’ delivered in an initial teacher education programme in an Irish university. During the module, students explored the principles and conditions underpinning creative learning environments from a variety of perspectives and experienced collaborative, playful and multidisciplinary approaches to fostering the creativity and agency of diverse learners. The module invited student teachers to approach teaching and learning with a creative mindset. Assessment of this module required students to draw on their own creativity and work

collaboratively with others to produce a video on the theme of 'Fostering Creativity and Innovation in the Post-Primary Classroom' using the various visual, narrative and digital media tools and strategies explored in the module. Findings indicate that over the course of the module, student teachers began to see themselves as creative beings with a capacity to develop their own creative potential and that of their pupils. In addition, they became more confident in establishing inclusive learning environments that facilitated creativity and promoted creative teaching and learning across all curricular subjects and for all learners.

Ready or not the possible is here!

Margaret Mangion
University of Malta

Andreia Valqueresma
*University of Maia &
University of Porto*

Maciej Karwowski
*University of Wroclaw,
Poland*

Embracing the possible can be an exciting yet challenging experience. Having imagination and creativity at its core, engaging with the possible implies, among other things, opening ourselves to diverse perspectives, often leading us to face the unknown and take risks. In this sense, exploring the possible can pose a significant opportunity to anticipate complex scenarios, actively developing one's creativity while exercising individual and collective self-regulation mechanisms such as those that comprise the creative self. Given this developmental potential, it appears logical to try to embed such experiences into the educational realm, thereby diversifying students' developmental trajectories and fostering their sociopsychological complexity. Moreover, in an age marked by social, cultural, economic, environmental and human challenges, designing educational contexts that intentionally explore the possible is critical to constructing a future that is capable of responding to the Anthropocene. However, few educational strategies and pedagogies have proven to be effective in achieving such goals, emphasizing the need to develop approaches that can materialize theoretical advances that have recently emerged within the field of the Possible studies. An extant review of the current literature does not reveal studies that capture the relationship between the creative self [namely the creative personal identity (CPI) and creative self-efficacy (CSE)], the creative mindset and the possible. This paper addresses this gap in the literature by gaining an understanding of how young people perceive their own engagement with creativity and the possible. The current study adopts a quantitative approach whereby a sample of students in secondary school aged between 13-15 will take the Short Scale of the Creative Self (Karwowski, 2011), the Creative Mindset Scale, (Karwowski, 2014) and the Scale of the Possible (Karwowski et al., 2023) to explore if significant correlations emerge. In particular, it will be worth nothing if levels of creative self-development (i. e. CSE and CPI) and a creative mindset are associated with an increased ability to envision and think about the possible. The preliminary findings of the study will be discussed, while potential implications for pedagogical practices and strategies will be explored in the hope to inspire

further research and pedagogical initiatives that may enhance a worldview of the possible in young learners.

Crisis, trauma and possibility: the sense of future in Musil, Morselli, Fry, Chabon and Brussig

Stefania Rutigliano

University of Bari

Robert Musil's definition of literature as an investigation of possibility not only keeps a distance from the rigid mimetic paradigm but also bestows literature with the task of shaping reality. The first pages of the novel corroborate that a possible experience is not the same as a real experience without reality, but entails a certain utopia in dealing with reality as a task or an invention. In the scope of Musil's aesthetics, *The Man Without Qualities* is conceived as the novel of possibility and its hero as a hypothetical character, continuing a tradition that goes back to Aristotle. As is known, in his *Poetics* he claimed that the poet, who relates things that 'might occur', deals with the wide realm of the possible, while the historian, describing facts that occurred in the past, relates the particular. Consistent with the same perspective are the notions of fictional words (Pavel) and literary heterocosmos with their implicit autonomy from the reality and their push to outline different possibilities for human future. What about the future in novels dealing with the historical or an alternative past? Novels concerning the historical or alternative past as it is, peculiarly maintain the future as a pivotal dimension. My aim is to examine some novels that engaging with the past of political crisis or traumatic events raise political and ethical questions crucial for the human future. I consider narratives of different dire events: from Musil's *The Man Without Qualities*, with its great overview of a civilization's decline against the background of the WWI to its counterfactual version in Morselli's *Past Conditional: A Retrospective Hypothesis* with its antideterminist and anti-Hegelian driving idea of history. I intend to analyse also the mock account of Brussig's *Heroes like us* and the 'modernist events' (White) regarded in Fry's *Making History* and Chabon's *The Yiddish policemen's Union*: even in the dark times (Arendt) the past of modernity's man-made catastrophes does not rule out a sense of the future as the realm of possible. Counterfactual thinking is particularly prominent for the sense of future because alternative events become nodal situation. In this case I will take into account the utopian, dystopic, counterfactual or alternative form of the selected works to examine how each work develops a critical judgment not only

on history but also on contemporary culture and this way prompt reflection about the future.

Coming down from the hilltop: Integrating peak transformative learning experiences into everyday life to open up deep possibilities for individual and collective transformation

Bem Le Hunte

TD School, University of Technology Sydney

This presentation explores the concept of ‘peak transformative learning experiences’ in the context of a global studio in a utopian community (Auroville) in South India. Students in the Bachelor of Creative Intelligence and Innovation at UTS have been going to this community for several years and each time have articulated illuminations that were life-changing. Peak transformative learning experiences are defined as ‘intense and profound moments of ineffable illuminations and discoveries, sometimes even spiritual or mystical states of consciousness, which, with processes of meaning-making and integration, can transform perceptions and enactions of self, identity, intrinsic values, and ways of being in society’ (Le Hunte et al, 2021). Peak experiences were first described by humanistic psychologist, Maslow, as exhilarating, moving, elevating experiences, oceanic in nature: experiences that illuminate the possibilities of reality in ways that are transformative (1964). Others have further synthesised this idea with the study of ‘markers’ of peak experiences (Privette, 2001). This paper seeks to explore how peak experiences are integrated after the transient moment when they take place, and what learning for life or life-filled learning can potentially evolve once individuals have ‘come down from the hilltop’ (that moment when revelation or insight of possibilities is heightened) back into ordinary daily life.

Opening up epistemological possibilities: embodied learning in the transdisciplinary classroom

Lucy Allen
*TD School,
University of
Technology
Sydney*

Susanne Pratt
*TD School,
University of
Technology
Sydney*

Bem Le Hunte
*TD School,
University of
Technology
Sydney*

**Jacqueline
Melvold**
*TD School,
University of
Technology
Sydney*

Giedre Kligyte
*TD School, University of
Technology Sydney*

Katie Ross
*TD School, University of
Technology Sydney*

Barbara Doran
*TD School, University of
Technology Sydney*

Education institutions and practitioners are grappling with the question of how best to prepare learners for an ever-changing and increasingly complex world. However, the possibilities of these challenges are still predominantly seen through the lens of the mind, not body. There is a need to embrace learning as a holistic, integrated and felt act. Of particular interest is how we as educators open up the possibilities of curriculum for being and becoming—not just knowing—in embodied ways so students can make a deeper sense of complexity and contribute positively to society. This contribution examines how embodied learning, as an expanded understanding of cognition, opens up epistemological possibilities within classrooms that are particularly suited for transdisciplinary learning. Educators can use embodied learning to support students to work across disciplinary boundaries and make sense of complex real-world challenges collaboratively through the explicit engagement of the body and sensory systems. Through attentiveness to body-mind-environment interactions, students' capacity for reflexivity, creativity, and complexity are supported, enabling them to develop core transdisciplinary competencies in integrating and implementing diverse perspectives, wisdom and knowledge in a profoundly authentic fashion. In this contribution, we present the findings of a practice-led inquiry into transdisciplinary education within TD (transdisciplinary) School at the University of Technology Sydney (UTS). We identify four dimensions of how embodied learning can support transdisciplinary education through (1) paying attention to the body when

sense-making, (2) engaging emotions to enhance creativity, (3) surfacing the dynamics of complex challenges to cultivate situated knowledge and empathy, and (4) developing an aptitude of boundary-spanning through the body, working between the boundaries of self and other, body and the environment, and different modalities of perception and action. Contextualising these dimensions in the existing embodied learning practice and theory, they are brought to life through case studies of the learning approaches that surfaced in our inquiry. These approaches include sensing and body-based reflection in knowledge generation; energiser and grounding activities to support play, creativity and mindfulness; tableau, gamification and enactment of complexity; and deep listening and physical modelling to explore complex problem-solving. Participants will reflect on how embodied and transdisciplinary learning can be used within their own practice to cultivate possibility within and beyond the classroom.

Creative nectar and deferring judgement

Barbara Doran

TD School, University of Technology Sydney

This talk shares learnings from a real-life case study of how co-creating creative practices with a community can nurture a sense of possibility to foster change. We take a transdisciplinary approach by integrating other ways of being and knowing, including tenets from Daoism and systems thinking, to transcend the human perspective. We will show how a deferring judgement mindset, combined with a creative practice, can help shift a community's perspectives to enable the embodiment of the multifaceted world of the honeybee. The session will be interactive and experiential as we co-create aspects of this creative practice with the group to bring the possibility mindset to life. Using a playful and spontaneous approach, we aim to nurture the change we wish to be by sharing ways people can take these learnings to affect change in their communities to keep the possibilities alive long after the conference has ended.

Nurturing “edge education” to disclose transformative possibilities for educational systems

Emilio Ruffolo

*University of Calabria, Department of Political and Sociological Science
Interdisciplinary Doctoral School "Politic, Culture and Development"*

In the “schooled society” (Baker, 2014) the processes of social construction of “education”, “school” and “right of education” can easily be reified, making themselves hardly susceptible to revisions and historicization. In this scenario, forms of education often labelled as “alternative education”, could promote the dialogue for the transformation of educational systems toward a future of pluralism, democracy, collaboration and effectiveness or could either be neutral or detrimental as it changes linguistic games that lies behind those labels (Gergen, 2009). The case of Italian national systems of education offers a good example of the risks of fragmentation. In Italy, the historically recent spread of public mass schooling (“scuola statale pubblica”) and a system of redundancy between laws, regulations and common sense has contributed to the social construction of public state school as the only mandatory possibility to fulfill the right to education. Nevertheless, the Italian law admits the possibility to fulfill the right to education also through what policymakers has recently called “istruzione parentale” (IP), Italian “alternative education”. IP is an administrative institution that opens to a great variety of educational organizations and projects, generating a multifaceted and decentralised community of educational practitioners. Since 2017 the numbers of people in IP has been constantly increasing (MIUR, 2022). This growth could be interpreted as an indicator of the ability of IP to answer to a certain educational demand. Laws and regulation obligate IP community to respect the ministerial guidelines concerning the competences of the youth committed in their educational path without any obligation concerning educational practices. Still, IP remains disregarded by academics and overlooked by the Ministry of Education, as reflected in its lax regulation. In this void we are observing a wide spreading of prejudices and misbeliefs and the fragmentation of the same IP community. To reduce the risk of fragmentation and move beyond the impasse generated by the quest for the intrinsically best or worst form of education

without falling into some form of nihilism (Chinazzi, 2023), I propose to offset aside the construct of “alternative education” in favour of “edge education” (EE). From this perspective, non-mainstream forms of education are not seen as antithetical to the school system. Rather, the educational system is seen as a metaphorical space where mainstream education is at the centre and other legal forms of education are at the "edge". Legal status, financing possibilities and administrative requirements are the sociological criteria that organise the dynamic and historically determined spatial positioning of the educational possibilities from the centre to the edge. The lax and shifting social borders between the different educational possibilities allow practitioners to move from one to the other (Kunzman and Gaither, 2020), promoting generative knowledge and ideas exchanges. The construct of edge education invites academics and educational practitioners to embrace a pluralistic, collaborative and glocal approach. Rigorous investigation of EE could be a way to nurture the construction of a renovated educational world community.

Poietic memory: The repository of the possible

Giovanni Emanuele Corazza

University of Bologna - Marconi Institute for Creativity (MIC)

We will discuss the cognitive correlates of possibility thinking, with an emphasis on creativity and mental time travel. This will lead to the introduction of the concept of "poietic memory" as opposed to "mimetic memory" oriented towards the accurate reproduction of knowledge, facts, events. After discussing the implications at individual level, we will propose an extension to the level of collective poietic memory, showing how it represents a very important shared asset at sociocultural level.

The wisdom of the “non-available”: The fragility, the loss of the world and the possible in the philosophy of Joan-Carles Mèlich and Hartmut Rosa

Kseniya Fiaduta Prokharchyk
Autonomous University of Barcelona

“Everything is possible.” “You are your only limit.” “Live up to your full potential.” “The world is your oyster.” These are a few examples of the pervasive power of the possible in our daily lives and collective imagination. Western culture, in the words of Giorgos Kallis (2019), is “infatuated with the dream of overcoming limits” (p.1), of making the world fully “controllable, available, accessible and attainable” (Rosa, 2018, p. 42). In recent years, two important thinkers- the philosopher Joan-Carles Mèlich and the sociologist Hartmut Rosa- have examined the dangers and the dramatic consequences of this pervading desire for continuous growth, expansion, and mastery. According to Hartmut Rosa (2020), a world that is fully mastered, known, controllable and available, is a “dead world”, a world that is no longer able to reach us in any meaningful or resonant way. For Joan-Carles Mèlich (2021), the current impoverishment and loss of the world calls for learning anew how to dwell in the fragility of the world and human existence, accepting its radical ambiguity, alterity, uncertainty, limits, mysteries, and shadows. In the analysis of these thinkers, the possible no longer emerges as a positive and world-disclosing concept, but rather as a problematic dimension closely linked to the muteness, closure, impoverishment and the loss of the world. Both thinkers point to the urgent need to embrace the wisdom of limits and non-availability of the world and to develop alternative modes of relationality not based on the logics of control, mastery and availability. In this presentation, I will examine how the wisdom of the “non-available” is articulated in the work of these thinkers, highlighting their differences, mutual connections, and complementarities. I will then conclude with some reflections on the importance of the “pedagogy of the possible” (Glăveanu, 2020) as the pedagogy of limits and non-availability of the world, as a pedagogy that takes the need to preserve the non-availability, the ambiguity, the fragility and uncontrollability of the world and human existence as its central aim and

component. With the climate breakdown on our horizon, we are now “entering a time of inescapable limits” (Wendell, 2008).

Let go of the one-size-fits-all definition

Annelien Smets

imec-SMIT, Vrije Universiteit Brussel

Anyone familiar with the term serendipity will recognise that it is a vague one. In recent years, we have seen a proliferation of frameworks and theories attempting to capture the nature of serendipity and its antecedents. Nevertheless, despite these efforts, designing for serendipity in practice remains a significant challenge. This means that, especially in information systems design, we tend to fall back on operationalizations of serendipity that are highly context specific. However, when surveys and reviews are conducted to consolidate all the knowledge we have about the concept, all these context-specific implementations are oftentimes aggregated once again. This is a significant problem, as serendipity manifests itself differently in various contexts. In order to mitigate this issue, I propose to let go of the one-size-fits-all definition of serendipity. Inspired by theories on how to design for values like safety or fairness, I develop an account of serendipity that allows researchers and practitioners to more systematically capture the nuances of serendipity in each context. This would allow for a more accurate representation of how serendipity is experienced and can be designed for in different situations. By doing so, we can gain a more comprehensive understanding of this complex phenomenon and its many manifestations across different domains. In this talk, I argue that by letting go of its definition, we get a better grip on serendipity.

Serendipity and creativity in data-intensive sciences

Mariana Vitti Roigues
São Paulo State University

Maria Eunice Quilici Gonzalez
São Paulo State University

What role does chance play in data-intensive sciences? This question guides the present inquiry concerning the automation of scientific practices. With the advancement of data-intensive research, together with the use of algorithmic models for data analysis, there is a growing process of automating scientific activities. In addition, the development of data storage capacity in massive data infrastructures enables processes of data reuse, reanalysis, recombination, repurposing, and repositioning (Leonelli, 2015; Collmann, 2016). To make sense of the vast amount and diversity of available data, algorithmic data analysis models have been developed to facilitate the detection of latent patterns in existent data structures that, ideally, could lead to new insights in scientific discovery. Inspired by the notion of serendipity, characterized as discovery by accident and sagacity, with knowledge being produced unexpectedly (Andel, 1994; Copeland, 2019), researchers are developing algorithmic systems to increase the possibility of finding unexpected patterns by the mechanical analysis of large datasets. The challenge here is to turn serendipity, a conjunction of chance and insight that is recognized retrospectively, into a strategy that requires aim-directed processes. To address the tension between goal-directed heuristics and the recognition of chance and accident as a relevant part of scientific research, we will analyze the concept of serendipity in light of Peirce's concept of abductive reasoning. Abduction can be understood as a creative problem-solving reasoning that begins with the perception of a surprising fact and ends, provisionally, with the establishment of plausible explanatory hypotheses that are considered worthy of further inquiry. Our central question in this presentation can be reformulated as follows: (Q) To what extent does the automation of scientific practices enable and/or constrain processes of discovery by serendipity? Our working hypothesis (H1) is that the study of serendipity, in relation to the concept of abduction, can elucidate the roles of chance and surprise in processes of scientific discovery, in the context of data-intensive research. We will investigate the extent to which algorithmic models for data analysis can enhance discoveries made by chance and sagacity. Finally, we will invite the audience to reflect on

the impact of chance for creative problem-solving reasoning in the context of data-intensive research.

Serendipitous information encountering as part of a pedagogical practice: catching serendipity as it unfolds in the classroom setting

Sabrina Sauer

University of Groningen

This paper argues that, by offering students different methods to investigate the role of serendipity in processes of discovery (Copeland, 2019), it is possible to facilitate a classroom experience in which students learn to embrace tensions brought about by uncertainty. I frame serendipity as a sociomaterial practice (Orlikowski, 2007) that can be supported in a classroom setting by giving students agency to improvise – in this particular case with digital search technologies – and by offering students a vocabulary to explicate how serendipity unfolds within research practices. This paper builds on insights drawn from a pilot study undertaken at the University of Groningen’s Digital Humanities Master’s programme in 2022 (Aasman et al., 2022). The study focuses on the discovery and evaluation of serendipitous information encountering (McCay-Peet & Toms, 2010) within a particular digital interface and infrastructure: CLARIAH’s Media Suite. The Media Suite is a digital research environment that allows (digital) humanities researchers to explore, encounter, annotate, save and export (audio-visual) sources using different digital search tools. The pilot developed and tested methods to teach Digital Humanities Master’s students about serendipitous information encountering using three different approaches: theoretical, technical, and experiential. First, students learnt about serendipity, serendipitous information encountering, and its role in discovery processes. Secondly, students investigated the Media Suite itself through tool criticism, exploring the ways in which the Media Suite’s search tools create a particular sociomaterial situation of discovery and uncertainty. Thirdly, students developed exploratory search tasks that they tested with bachelor students using interviews and think-aloud protocols. They subsequently reflected on how serendipitous information encountering happened as they themselves and their peers explored the search tools. The study therefore focused on creating a pedagogical practice that facilitated students’ insights into how to map and interpret serendipitous information encountering, and what these maps indicate about the role of serendipity in

digital (re)search practices. The pilot study's pedagogical approach set out to offer students ways to grapple with the notion that serendipity and improvisation are part of discovery processes. In this case, the lens of sociomateriality draws out how the material and social relate: what happens when users – with expectations, plans and search habits – start exploring the affordances of material technological artefacts. Investigating serendipitous information encountering in the classroom setting then becomes a way to underline the agency of the search tool's user; their explorations, annotations and interpretations are what make an information encounter serendipitous. After discussing the developed methods to explicate and elucidate serendipitous information encountering in practice, I will conclude by describing my next steps in a project aimed at developed methods to let Master's students create serendipitous datafied experiences in course about creative practices.

A model of serendipitous cognition

Wendy Ross

London Metropolitan University

Serendipity is the art of making a discovery through a combination of accident and sagacity. It refers to the moment when the features of the environment and the features of the individual combine to produce something greater than the sum of their parts. It is both so common as to be pretty much ubiquitous (daily life is a weave through the unexpected) but also so remarkable that it features heavily in our mythology of scientific discovery. To date, it has proven difficult to study empirically and the current understanding of it is based largely on recalled moments of serendipity. However, a situated perspective on cognitive processes suggests that understanding our interaction with the environment and hence with environmental chance is essential to understand human thinking not just retrospective sense making. This talk will present a preliminary model of how we can understand at a cognitive level the interaction of chance and sagacity and the conclusions that we can draw from this about situated cognition more generally.

Thursday, 13:15 - 14:00
Room Possible (AHC.SG05)

Keynote Address

The creative university: Possible futures in and for Higher Education

Rebecca Braun
University of Galway

This talk explores how universities create possible futures. At the heart of my talk is a fresh look at Arts and Humanities: how the expertise currently held within the higher education system might be realigned to facilitate better prospecting behaviour across society, and what this would mean for that education system if such a realignment were to happen at scale. I will draw on my experience of working with literary fiction in a number of diverse sectors in the UK, Europe, and the US. In so doing, I will urge reflection on how we use terms such as ‘translation’ and ‘translational research’ and, with this, how exactly a language of possibilities can be sustained right across campus that both universities and the wider world might understand.

Biography

Professor Rebecca Braun is Executive Dean of the College of Arts, Social Sciences & Celtic Studies as well as Established Professor of German at the University of Galway, Ireland. A founding Associate Director and Co-Director of the Institute for Social Futures from 2017-2020 at Lancaster University, UK, she led the Institute's development of a distinctive Creative Futures methodology with partners across government and academe in the UK, Europe, South Africa, and North America. Her futures work builds on a deep understanding of the power of people and stories, which she has traced in numerous books on authorship, world literature, transnationalism, and cultural value. She is currently leading the ‘Literary Futures’ research project and a wider ‘Creative Futures’ research group at the University of Galway.

Thursday, 14:00 - 16:00
Room Possible (AHC.SG05)

Interactive Workshop

Citizens assembly on the future of education

Chris Chapman Resource Centre at Burren College of Art	Martin Hawkes Resource Centre at Burren College of Art	Catherine Byrne Resource Centre at Burren College of Art	Shane Bergin University College Dublin
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A nation's education system constitutes its single most important resource for securing human capital formation and societal transformation. A citizens' assembly affords an exceptional opportunity to reimagine education for a new age.

Irish education has many strengths – high rates of participation, a reasonable level of access for less well-off students and a good record on PISA literacy and numeracy metrics. However, it has been critiqued by the OECD's Andreas Schleicher as being: industrial-age in its outlook and design; overly focused on transmitting knowledge; lacking an individualised student focus and collaboration among teachers; providing a dearth of pathways in further education and insufficiently attentive to equipping students to flourish in the modern world with capacities of 'thinking outside the box', differentiating fact from opinion, navigating ambiguity and managing complexity. No doubt such a critique is also relevant to other education systems.

The Citizens Assembly on the Future of Education (CAFÉ), which is expected to get under way in Dublin in early 2024, provides a unique opportunity to enable a paradigm shift from an industrial-age model to one that is a match for a digital-age characterised by volatility, uncertainty, complexity and ambiguity where the challenges of AI, climate change, biodiversity loss, migration and accelerating change are the new normal:

'We will establish a Citizens Assembly on the Future of Education ensuring that the voices of young people and those being educated are central.'

(Programme for Government)

Whether CAFÉ's potential is realised will depend on whether the creative participatory processes that led to its inception are reflected in how the assembly is mandated and managed and what comes after.

This workshop, hosted by the ReSource Centre at the Burren College of Art, welcomes diversity of input both international and local, to enact and explore these participatory processes of collective sense making and to reflect on their relevance for the wider societal transformation that this moment calls for in Ireland and globally.

Thursday, 14:00 - 16:00
Room Curiosity (AHC.SG10)

Interactive Workshop

Mapping possibility through sensory cartography

Britta Boyer
Loughborough University

Sensory cartography (body mapping) can stimulate conversations of shared experience with general audiences and create visually compelling approaches to the perspective of others. In this two-hour workshop, we aim to capture collective conference perspectives by exploring ‘what a body can do’ through its embeddedness and relationship with the world. You will see examples of sensory cartography as a research tool that creates both inclusion and alternative ways of understanding participants in their social contexts. You will explore the body as a method of capturing knowledge by bringing the inside outside where the eye, alongside touch, movement, and other senses, can participate in the interiority of experiences from the conference. In exploring the past-present of the Possibility Conference, through the body, we will recover the collective experiences, and their meanings, that can result in possible actions of ‘may, might, could’ post-conference.

Thursday, 14:00 - 16:00
Room Creativity (AHC.SG09)

Interactive Workshop

No limits: The art of possibility

Carole Keating

Artist / creative producer

How might artistic experiences influence our perception of possibilities? Join artist Carole Keating to explore how novel embodied experiences might inspire new creativities, in this playfully interactive workshop.

First, enter a series of fiendish fast-paced creative challenges for a chance to win your place in art history. Will you shine in the individual round? Inspire in the group stages? And triumph at the deathmatch?

Next, we'll explore how novel embodied experiences can challenge common creativity myths, such as the old-fashioned elitist view of the artist as solitary creative genius, and instead cultivate the creativities of the future.

Your expert perspectives will contribute to artistic research for *No Limits*, a live art installation currently in development for summer 2024, in which an audience will co-create a monumental abstract painting whilst flying over it on a zipwire.

*Thursday, 14:00 - 16:00
Room Wonder (AHC.SG11)*

Interactive Workshop

Enhancing creativity through experiencing different channels of learning

Adva Margalio
Achva Academic College

Efrat Bengio
*Givat Washington Academic College of
Education*

The workshop is designed to demonstrate the connection between learning channels and actions that supports the creative ability to perform a given task.

When given a task, the actions in most cases will be dictated from the instructions and from action in routine channels such as writing, or conversation. However, there are many other options for action that promote creative thinking such as Visual channels - paintings, photography, and movement channel forms such as dance and sensory channels.

The participants of this workshop will use different channels of learning and action to express their individual and group creative abilities while applying meaning and mediation principles.

Thursday, 16:15 - 17:00
Room Possible (AHC.SG05)

Keynote Address

The possibilities for re-imagining higher education

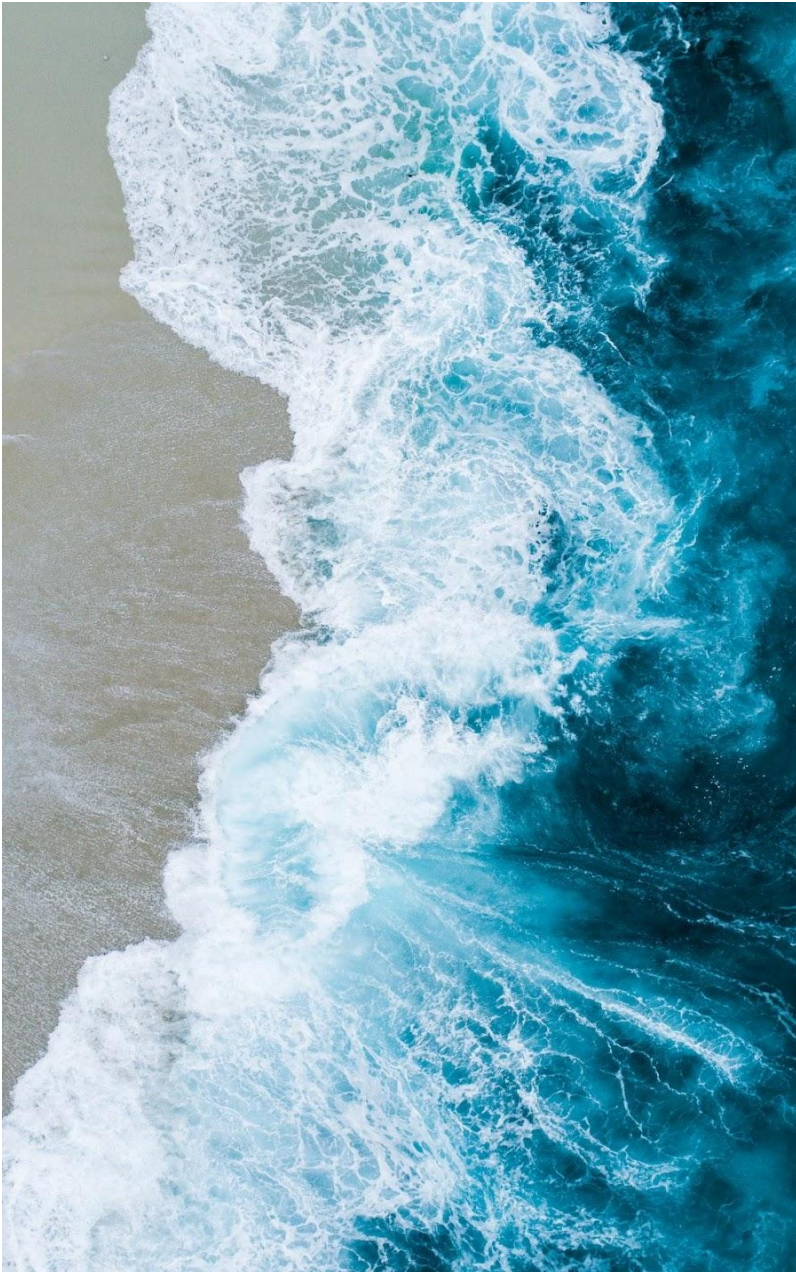
Ciarán Dunne
Dublin City University

Higher education offers myriad possibilities to develop students' personal agency and help them to develop the capability to thrive; that is, to imagine, pursue and realise a life that they have reason to value and which is of value to their society. However, higher education systems around the world display a high level of homogeneity in how they both conceptualise and architect students' learning journey. Higher education is facing major disruption in the coming years, as the various mega-trends that are shaping the sector start to exert increasing influence. This talk will examine the higher education landscape and explore these trends in detail, while considering their implications for those tasked with providing impactful and innovative educational offerings in a world where knowledge is no longer the form tradeable capital it once was. In exploring the possibilities which emerge from such disruption, the growing importance of transversal skills will be discussed, as will the challenge of how to define, operationalise, integrate, assess and evidence these, as well as the perceived tension that exists between such skills and discipline knowledge.

Biography

Ciarán is the first Transversal Skills Director for Dublin City University, tasked with identifying, operationalising, integrating and evidencing specific competences which will develop students' personal agency and capability to thrive in an increasingly complex and unscripted world. Prior to taking on this role, Ciarán was Associate Professor in the Faculty of Humanities and Social Sciences, lecturing across multiple disciplines, including Sociology, Social Entrepreneurship and Innovation, Spanish language, Creativity, Futures Literacy, and Intercultural Studies. He has been Chairperson of the BA in Social Sciences and Cultural Innovation, the MA in Intercultural Studies and the MA in Comparative Literature. His research has been published in top-ranking international journals across multiple disciplines, such as *Creativity Studies*, *Sociology*, *International Education*, *Intercultural Studies*, and *Qualitative Research Methods*. Ciarán is passionate about creativity and has a particular interest in exploring how human creativity can be stimulated and enhanced, and created the Credne project and podcast, which focused on approaches to fostering creativity in education and beyond. In 2018, he

was awarded the President's Award for Excellence in Teaching and Learning at DCU in the category of Distinctive Approaches to Teaching.



Friday

*Friday, 09:30 - 10:30
Room Possible (AHC.SG05)*

The status of the real in Possibility Studies – a chaired debate

**Michael Hanchett
Hanson**
Columbia University

Bem Le Hunte
*TD School, University of
Technology Sydney*
(Chair)

Giovanni Corazza
University of Bologna

In discussions of possibility, contrasts between what is grounded in reality and what is achieved through imagination are common. Relationships between reality and imagination, however, can be complex. Should we look to the imagination as the primary source of possibilities that can move beyond the here and now, or is the actual more likely to lead to true, unanticipated novelty and possibility? Is the adjacent possible sufficient, or should we also contemplate the idea of a non-adjacent possible? This debate between Giovanni Emanuele Corazza and Michael Hanchett Hanson chaired by Bem Le Hunte features two perspectives on these questions, exploring possible relationships between reality and imagination, the potential of those relationships, and the dangers.

Friday, 11:00 - 13:00
Room Possible (AHC.SG05)

A future of collaboration: Possibility Hubs

This final presentation advances a concrete proposal for ‘cultivating the possible in education and society’. This takes the form of an intervention - that could be implemented as a workshop, training programme, or long-term project - aimed at making participants aware of the ways in which they experience the possible and offering them specific resources for advancing their exploration of it. Based on sociocultural processes such as re-positioning, position exchange, perspective-taking and dialogue, this proposal bridges theory and practice within Possibility Studies and can constitute an open resource for collaborating within the Possibility Studies Network. The first hour will be dedicated largely to participating in the actual intervention while the second hour will explore how such tools can be co-developed and implemented - as Possibility Hubs - in different parts of the world and with different groups of participants, including those who are traditionally marginalised and denied a sense of agency and possibility.

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