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Norris, Nicole, Tennent, Alexis, Pozgaj-Jones, Irena, Dagenais, Adam, Renaux, Joanne and Alfonso, Shaun

From Discord to Effective Innovation Cycles: Mitigating project team hierarchies

Building a community-based participatory systemic design methodology for applied research in the Canadian context of rural post-secondary institutions

Nicole Norris, MDes., Alexis Tennent, MDes., Irena Pozgaj-Jones, Adam Dagenais, Joanne Renaux, MA., and Shaun Alfonso

Georgian College

Research has been done to understand how personality types and cognitive styles play into teamwork and interpersonal relationships on participatory innovation teams in organisations. While there is agreement that heterogeneous teams may have a higher potential for dominant cultural norms of success, there is also understanding that such teams tend to experience more' conflict'. This is especially true when organisations resort to doubling down on dominant cognitive styles – often a risk migration strategy – to push past the tension and simply "get the job done" and allow dominant worldviews or cultural narratives to lead.

This perspective sees "conflict" as a barrier to implementation without understanding the importance of tension generated in diverse teams in co-creating value for economic, social, and planetary flourishing. Our work investigates how we might understand and mitigate the hierarchies on community-based social innovation design teams that prevent us from benefiting from the full complement of cognitive styles necessary for innovation and overcome dominant "double down" productivity narratives.

The activity proposed allows participants in immersive AR and VR spaces the ability to "walk-thru,' a co-creation methodology for social innovation in rural contexts, as implemented through an institution of applied learning in higher education. While many innovation frameworks – social or otherwise – are grounded by pre-determined outputs and outcomes, this methodology is centred on leveraging the tensions of plurality and the various diverse ways they think, understand, and see the world.

KEYWORDS: systemic design, community-based participatory action research, flourishing, living labs, impact networks, post-secondary education, Ashoka

RSD TOPIC(S): Methods and worlds they make

Background rationale and context

Rural socio-economic sustainment is complex. Understanding that rural regions have high potential for economic development when there are opportunities for social innovation, social transformation, and social transition (Barbero citing Neumier, 2012 and Markard et al., 2012), but the pathways leading to these opportunities often require a multiplicity of interconnected approaches. (Lee, Arnason, Nightingale, & Shucksmith, 2005). In parallel, importance is given to innovation in Canadian and international policy circles, with non-metropolitan communities" feeling a growing sense of being "left behind" due to place-based barriers to workforce and economic development (Creasy, 2017) and community-based organizations increasingly needing evidence-based impact to satisfy funder reporting requirements.

As Canada's first and only AshokaU Changemaker College, Georgian College is exploring the social complexities of rural community sustainability through the College's Centre for Changemaking and Social Innovation (CSSI). CSSI has an established Theory of Change – Flourishing Communities (Jones, 2017), Flourishing Economies (Upwards & Jones citing Ehrenfeld, 2000a; Willard et al., 2014) – that supports a community-based participatory action-research (CBPAR) (Israel et al., 2013) approach to regional rural socio-economic sustainment challenges, informed by the domain and principles of Systemic Design (Jones, 2014). This work falls under a larger national call to action by

Ashoka Canada, through its Changemaker Campus network and the McConnell Foundation, around the social imperative and the business case for accelerated social innovation by advanced educational institutions to use their typology of assets for building social infrastructure in Canadian communities (Strandberg et al. 2017).

To support national and provincial innovation agendas in addition to regional rural community sustainability – or flourishing - The Community Impact Lab Network (CILN) was developed to strategically address the social and economic imperatives of CCSI's Theory of Change within the context of rural community organisations to evidence outcomes within shifting funding landscapes. The CILN is modelled after an "Impact Network" (Ehrlichman, 2021) that hosts individual "Living Labs", or transdisciplinary open innovation community-based research projects, within its impact network framework. The CILN operates under the domains and principles of Systemic Design (Jones, 2014) by bringing together students, staff, faculty, and regional rural stakeholders to "Innovate Together" around complex social, environmental, and economic issues related to the UN Sustainable Development goals.

The Community Impact Lab Network Overview

The Community Impact Lab Network (CILN) is a transdisciplinary social innovation research initiative out of the Centre for Changemaking and Social Innovation.

The research done by the Community Impact Lab Network specifically addresses matters of regional concern (Jones, 2017), outlined in CCSI's Theory of Change under the goals of: 1) Conduct applied research on the capacity for adoption of social innovation and social entrepreneurship skills and mindsets; 2) Increase internal and external system capacity to provide social innovation and social entrepreneurship skill building through experiential learning or applied research opportunities and; 3) Georgian graduates and organisations enable value-driven data to enable the conditions for community flourishing.

Strategic in design but creative in organisation, the CILN brings together diverse community stakeholders to innovate together around place-based or regional outcomes to the United Nations Sustainable Development Goals (UN SDGs). The CILN is made up of individual Community Impact Labs (CILs) or "nodes" that are considered applied community-based participatory research projects. These individual Labs are

based on a "Living Lab" framework. Living Labs are defined as open innovation ecosystems contextualised in real-world environments that use iterative research processes to co-create community-based innovations for social impact (European Network of Living Labs).

Viewed by the research lens as being informed by design for social innovation (Irwin et al., 2015., Jones, 2014), the CILN research approach is defined as "an approach to inquiry and action not limited to the creation of physical products or structures. Rather, it is "an approach to human agency in a complex world" based on foundational ideas inclusive of systems thinking (DaCosta et al., citing Nelson 2008a, p. 2). CILNs cross sectors and disciplines and acknowledges that participants have fluid roles in the research process (Burns et al., 2011). In the case of the CILN – lab participants are co-designers, designers are lab participants, co-designers are co-researchers, and all participants are co-evaluators. (Sanders and Stappers, 2012) (Quinn Patton, 2011). This is a cornerstone characteristic of the living lab framework that the individual Community Impact Labs are built upon (European Network of Living Labs).

Activity description

Our activity will take visitors on a virtual journey through the CILN co-creation design process in the form of a growing spiral (Figure 1). This origin point of the activity is at the individual level, where multiple cognitive styles are explored along with their associated tools, processes, and skills in the context of the Community Impact Lab framework.

This will be a 15-minute immersive VR/AR experience as visitors can view and manipulate the pieces associated with the co-creation stage and profile in 3D space. Our activity supports confronting legacies of oppression by creating a space which presents a diverse range of cognitive styles, their unique capacities and supporting design tools to contribute towards achieving systemic impact and eventually flourishing and thriving communities (Figure 2).
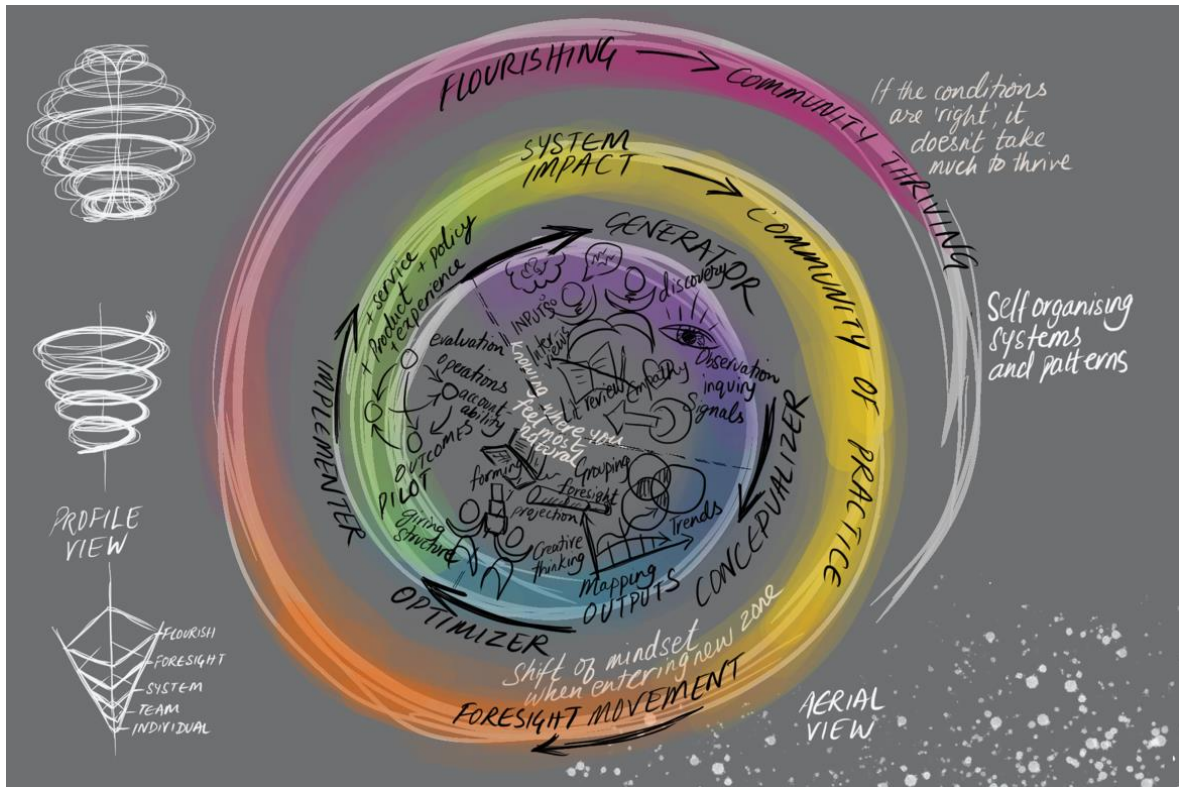
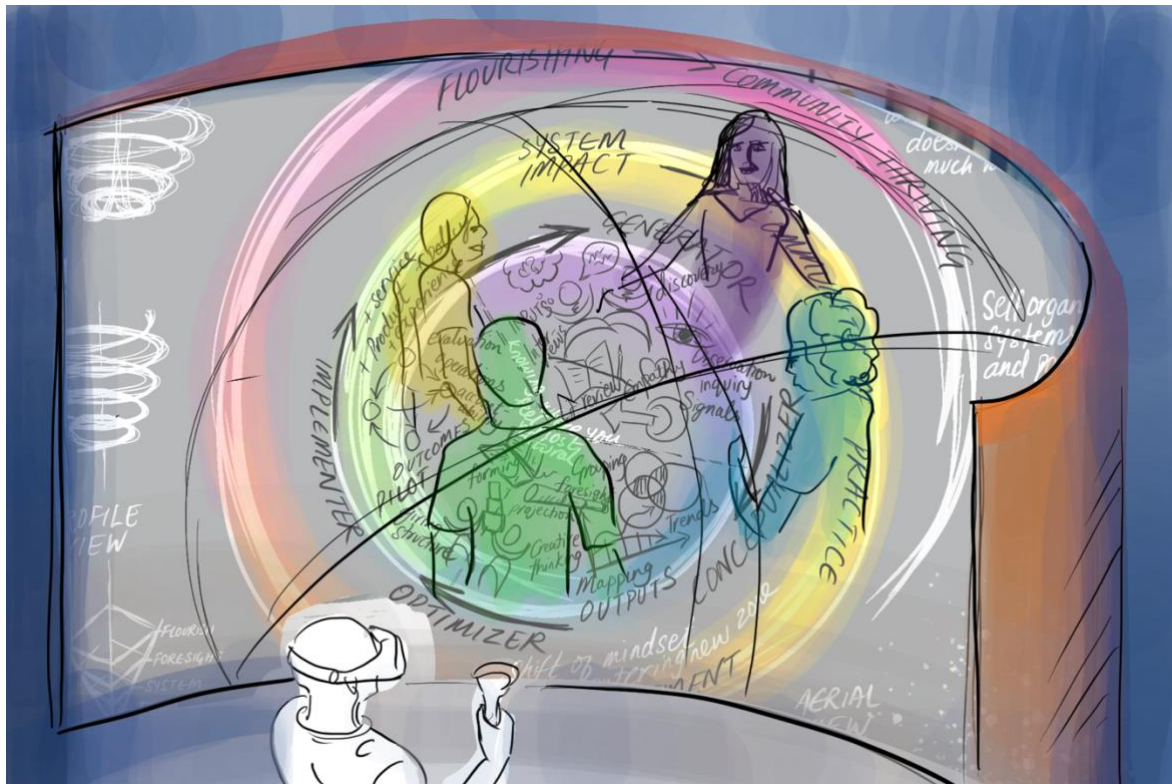**Figure 1.** Co-Creation Methodology Spiral Sketch

Figure 2. Immersive Methodology in VR/AR Experience

Within this virtual setting, visitors can explore and follow the design innovation process from the individual level and onto more collective perspectives such as teams and systemic levels. This activity is intended to be an in-person experience, as visitors will need guidance and support to optimally enjoy the VR medium (Figure 3). Being a live and/or in-person activity will allow our facilitators to assist people new to VR and troubleshoot any technical issues or difficulties. Furthermore, our activity space will display a live feed of the viewer's VR perspective to collectively share the experience and generate greater engagement and curiosity.

Figure 3. Multi-person VR Engagement

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