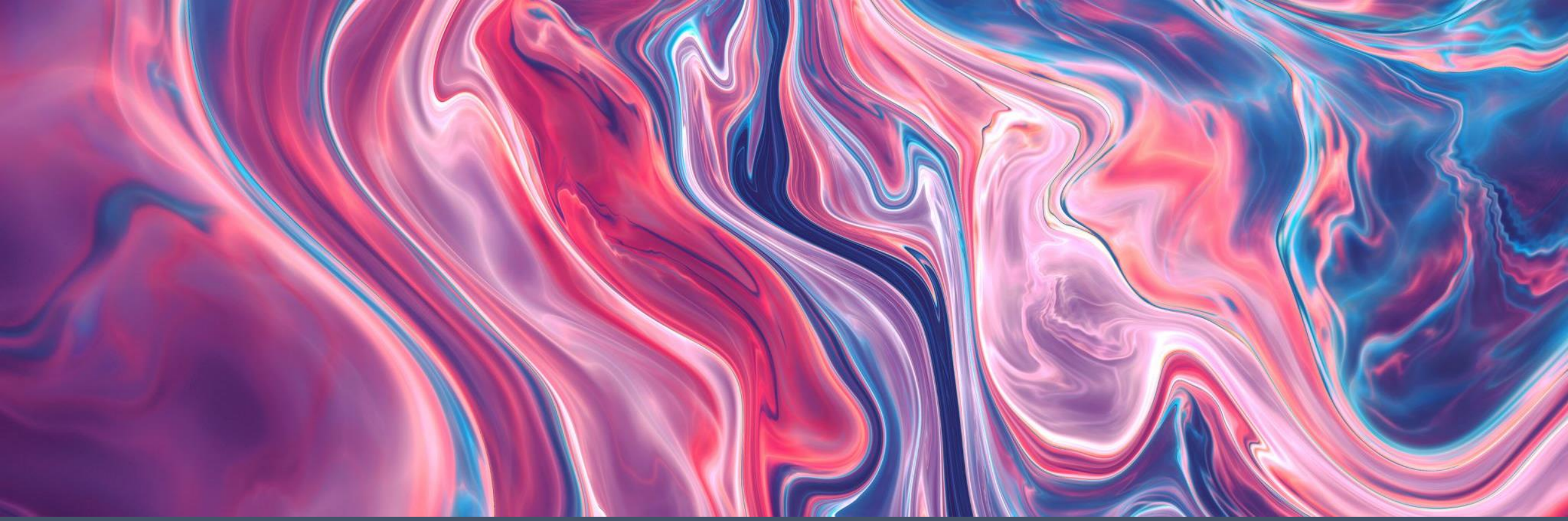
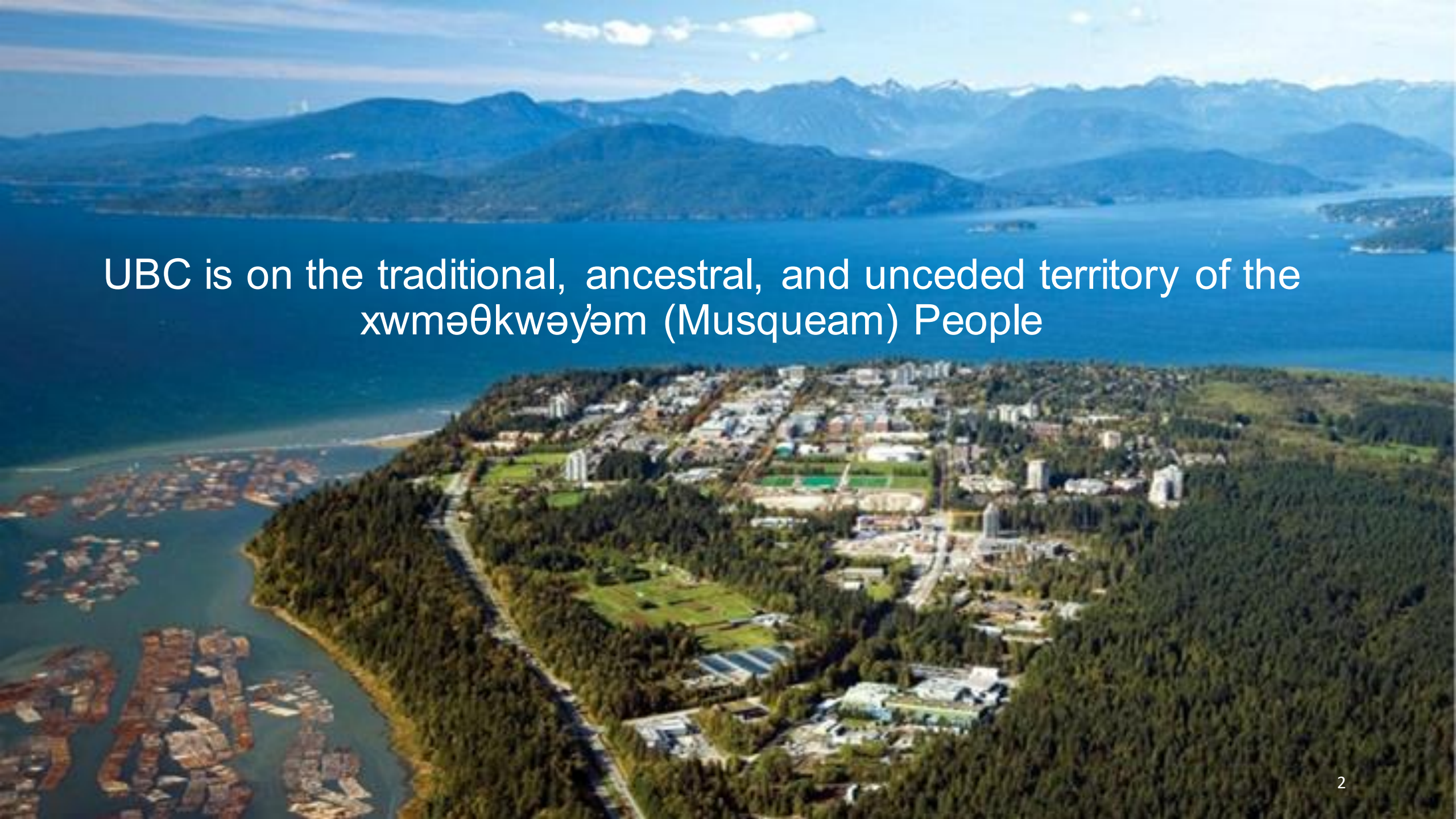


Conditions to Cultivate Transdisciplinarity

Naoko Ellis & Derek Gladwin
UBC


UBC is on the traditional, ancestral, and unceded territory of the xwməθkwəy̓əm (Musqueam) People

- Environmental & Sustainability **Education**
- Systems perspectives & complexity

Derek & Naoko

How do we cultivate the conditions to hold space for multiple perspectives, uncertainty, and complexity?

- Chemical **Engineering**
- Energy transition
- Leadership

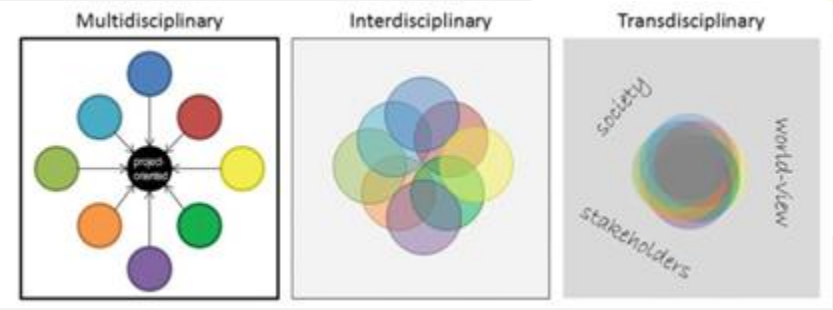
Conditioning the Soil for Change

What is Transdisciplinarity?

- Transdisciplinary (TD) research often includes various disciplines dissolving into one another to create new forms of knowledge, adaptive, and collaborative team learning, and a cooperation between academia and society.
- TD employs ***integrating theory*** by adopting a ***working methodology*** when ***engaging stakeholders***.

Ramachandran et al., (2022) Transdisciplinary and interdisciplinary programmes for collaborative graduate research training, *Educational Review*.

Working
Methodology

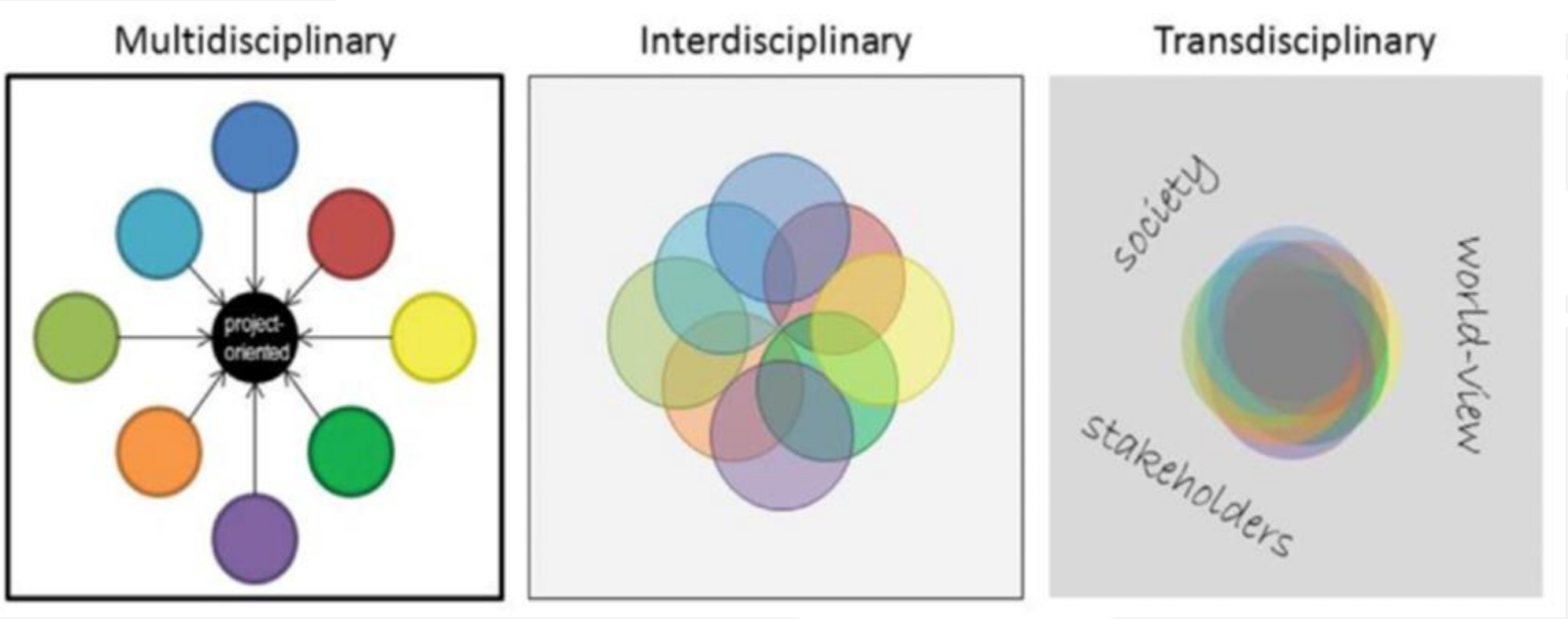


https://imaqpress.com/2678/differentiation-between-interdisciplinary-and-transdisciplinary-concepts/

Buffet

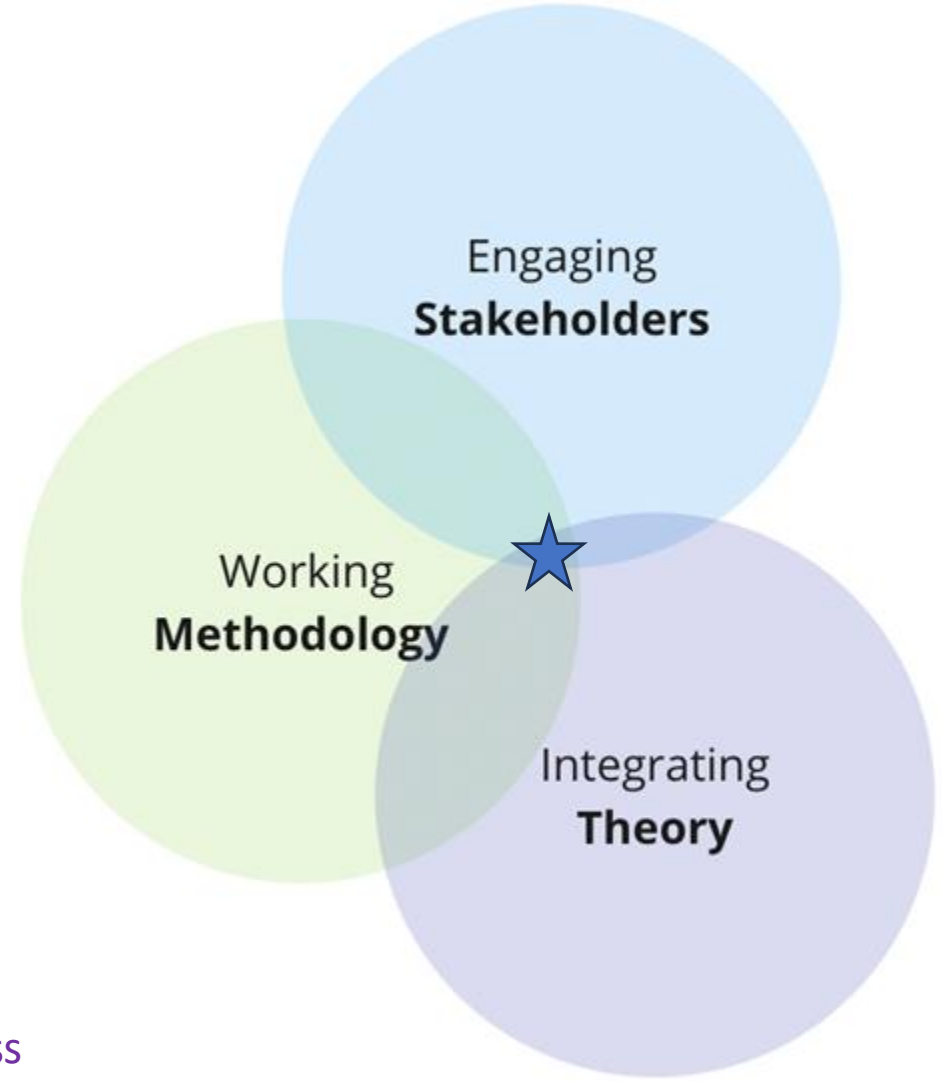
Salad

Cake



https://imaqpress.com/2678/differentiation-between-interdisciplinary-and-transdisciplinary-concepts/

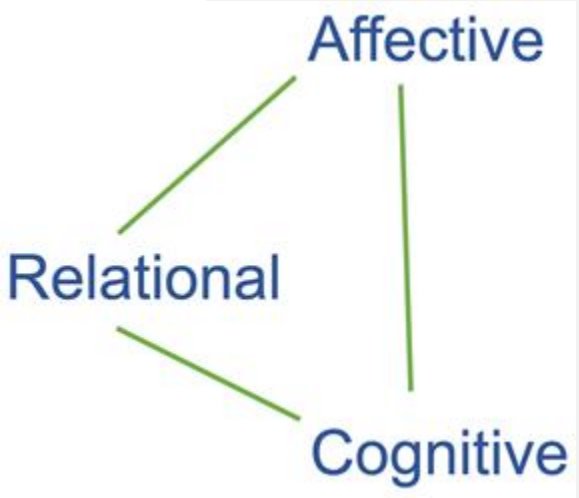
TD tool kits & field guides



TD research

TD research process

Engaging
Stakeholders
Working
Methodology
Integrating
Theory


Affective
Relational
Cognitive

ARC Framework:
developing ways of knowing
(epistemologies)
and being (ontologies)

Affective

feelings, bodies, and sensations

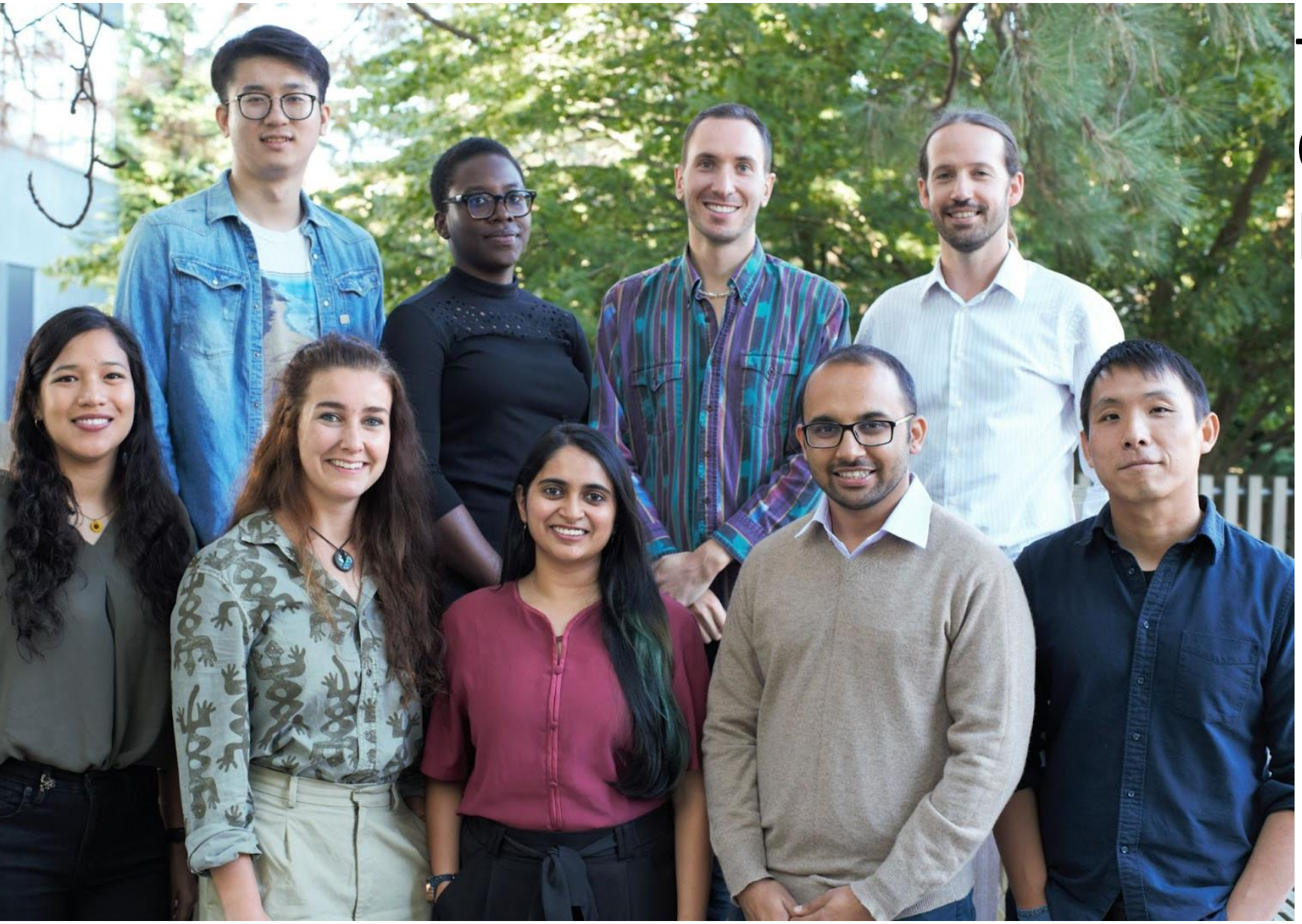
(i.e., embodied knowledge)

Relational

co-creating, collaborating,
de-centering the *self*
(i.e., interconnected knowledge)

Cognitive

thinking, memory, rationality, experience, etc.
(i.e., intellectual knowledge)



Transdisciplinary Collaborative PhD Pilot @ UBC

Worked with 9 PhD students and 9 faculty members for one year

https://climateaction.collabphd.ubc.ca/

Discomfort

- How do we deal with discomfort?
- How being is the antidote to discomfort
- How do you be?

Stefon Harris: There are no mistakes on the bandstand

On the Bandstand

- Improvisation
- Adaptation
- Listening
- Feeling
- There is no "wrong" note

What were some bandstand moments for you?

THE UNIVERSITY OF BRITISH COLUMBIA

Vancouver Campus

Systems Beings Lab

Home | Team | Research | Resources | Contact

Who we are

Systems Beings Lab (SBL) is a collaborative research collective to facilitate and elevate various approaches to grapple with complexity. We bring process-oriented approaches to foster non-linear dynamics of un/learning, and allow space and time to explore the messes of paradoxes, contradictions, and multiples perspectives.

AFFECTIVE
ONTOLOGICAL
RELATIONAL
EPISTEMOLOGICAL
COGNITIVE

Come join us!

- New cohort for transdisciplinary collaborative PhD recruitment:
  - Energy transition working with communities
  - Fall 2025
  - Cohort based PhD education

Further Reading

- Andreotti, V.O. (2021). Depth education and the possibility of GCE otherwise. Globalisation, Societies and Education, 19(4), 496-509.
- Banathy, B.H. (1991). Systems design of education: A journey to create the future. Englewood Cliffs, NJ: Educational Technology.
- Ellis, N. & Gladwin, D. (2022, July 19). How climate storytelling helps navigate complexity and find solutions. The Conversation.
- Gladwin, D. & Ellis, N. (2024). Systems Beings: Educating for a Complex World. Educational Philosophy & Theory, 1-13. https://doi.org/10.1080/00131857.2024.2320185
- Gladwin, D., & Ellis, N. (2023, March 4). In a complex world, our graduates need to be systems beings. University World News: The Global Window on Higher Education.
- Laszlo, E. (1972). Introduction to Systems Philosophy: Toward a New Paradigm of Contemporary Thought. Gordon & Breach Science Publishers.
- Laszlo, K.C. (2012). From systems thinking to systems being: The embodiment of evolutionary leadership. Journal of Organizational Transformation & Social Change, 9(2), 95-108.
- Meadows, D., Thinking in Systems, Chelsea Green Publishing, 2008.
- Ramachandran, A., Schwellnus, M., Gladwin, D., Derby-Talbot, R., & Ellis, N. (2024). Cultivating educational adaptability through collaborative transdisciplinary learning spaces. Discover Education, 3(1), 2.