

Acknowledgements & Disclaimers

INNOVATION is a

BUZZWORD

(but it doesn't have to be)

Pop Quiz *(True/False)*

The following case studies are what we talk about when we talk about innovation.

An inventor realizes that carbon glows when you run electricity through it. They begin mass-producing carbon filament "bulbs" of light to sell it to a municipality to improve nighttime visibility and safety – but only succeed by developing an electricity distribution system, too.

An owner of a cornerstore realizes that a popular new after-school program is starting, and they add new items to their deli and shift their cashier schedules so that they can check in two customers at the same time due to the increase in busy-ness.

A designer connects gaps in therapists' schedules with an online app that helps the therapist schedule on-demand time with clients through video calling.

A manager is having trouble keeping their team engaged in meetings, and discover a new mode of agenda-setting and collecting minutes through conversations with their friends (who work in another industry). Adapting the new meeting mode renews the productivity of their team.

Specialized facilitators re-frame their services as an events-based business model to deliver their creative approaches to strategy and community building to clients.

Political activists record a politician's commitment of bribery and turn it into a ringtone. The ringtone goes viral and the leader is ousted.

Pop Quiz

Four lessons:

Innovation

Innovation orientations

Innovation process

Innovation skills

One tool:

Innovation Auditing

Fourth Industrial Revolution

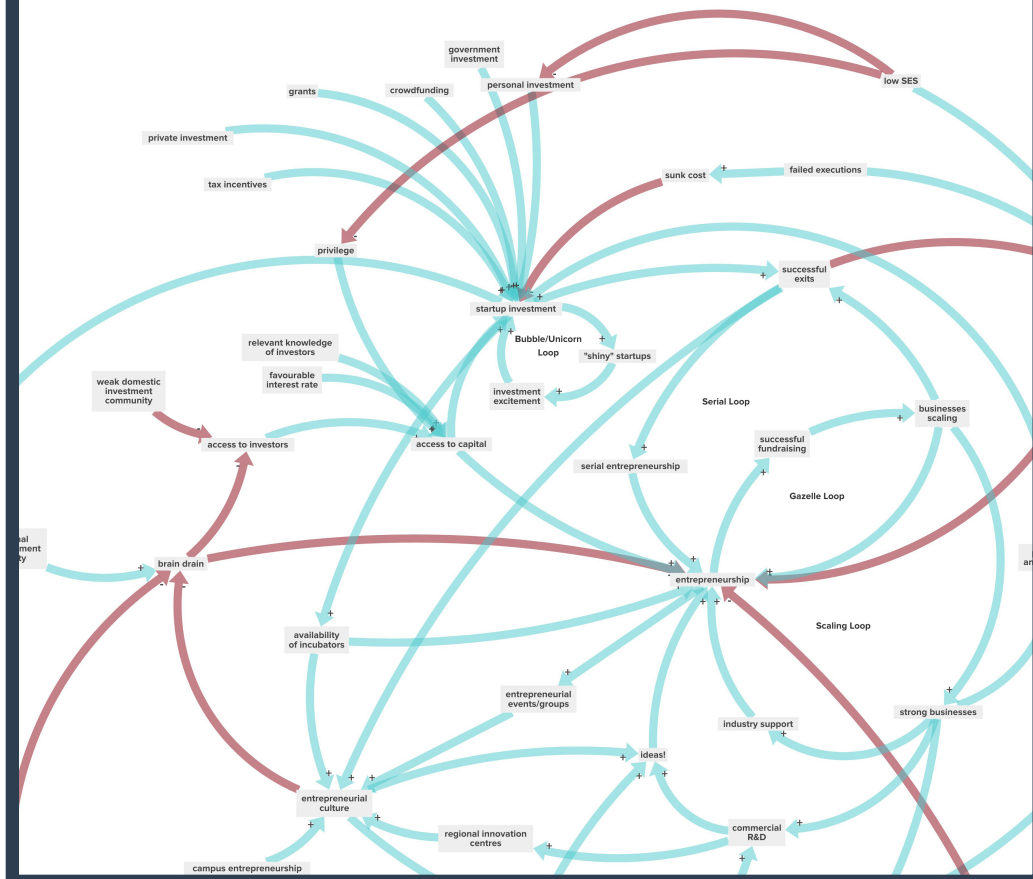
Response to Wicked Problems

Misinnovation

Systemic Design: Social Systems (SFIN-6008)

CANADA'S REAL INNOVATION GAP

Leverage points & opportunities for change in the Canadian innovation system



Three inquiries:

Innovation

Innovation education

Research Question
Innovation education in NL

How might we define innovation holistically, across many different perspectives and geographies?

Innovation

Research Question

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Methods

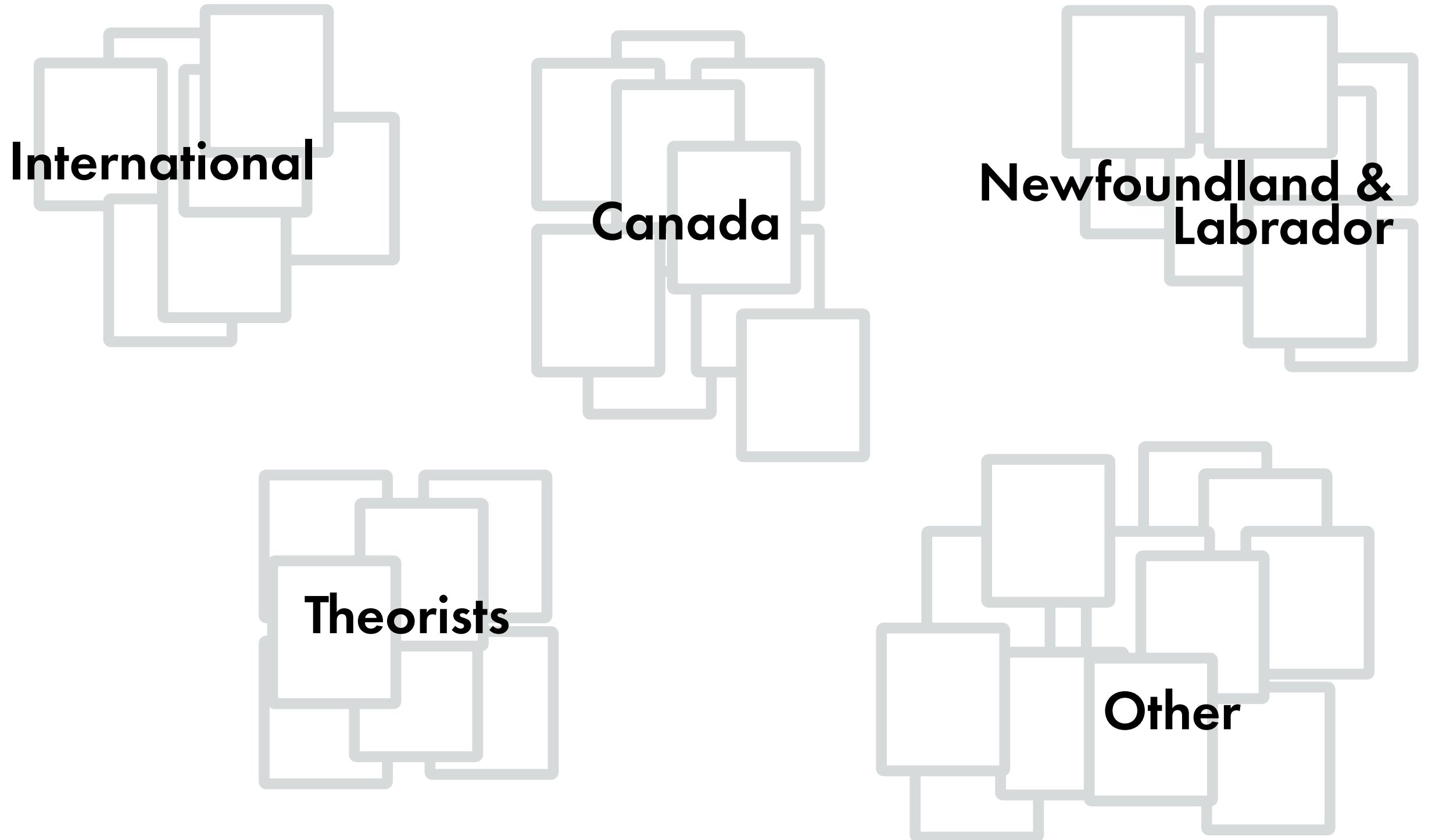
Coding (Inspired by grounded field theory)

Literature review ➡ primary data

Modelling & synthesis with kumu.io

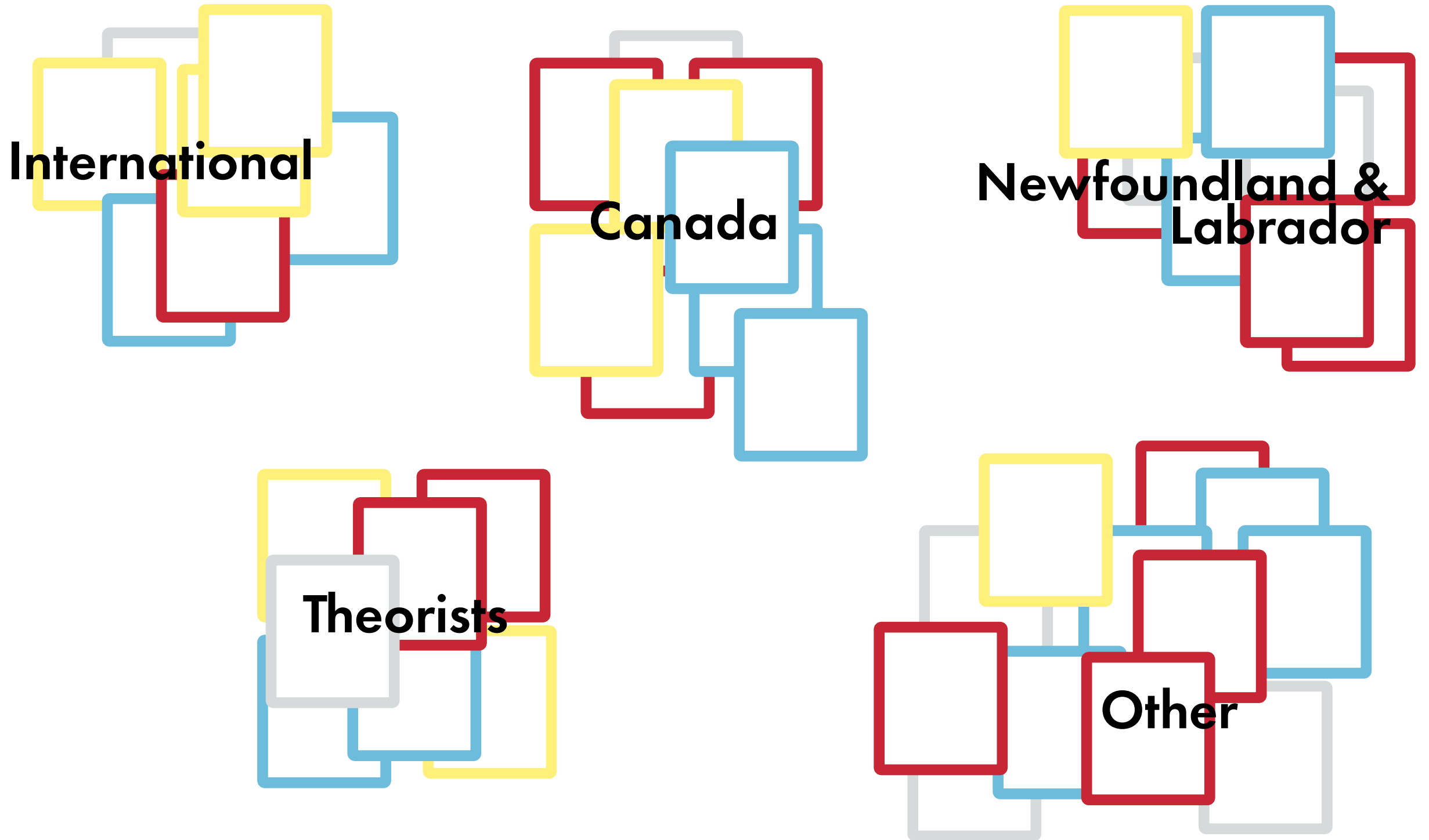
Research Question

How might we define **innovation holistically, across many different perspectives and geographies?**



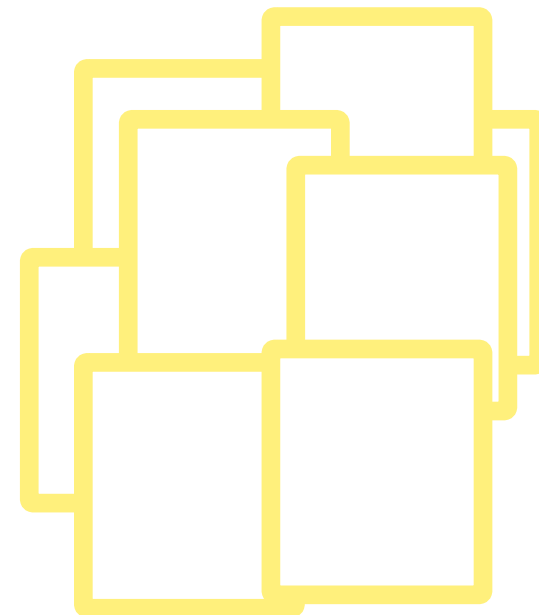
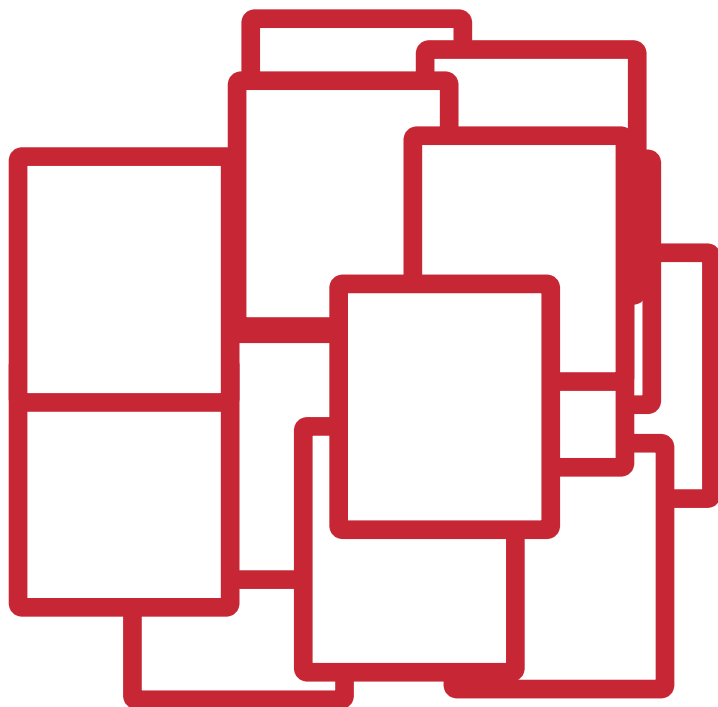
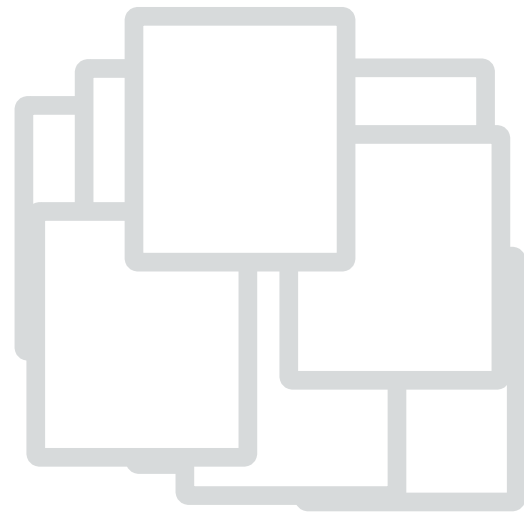
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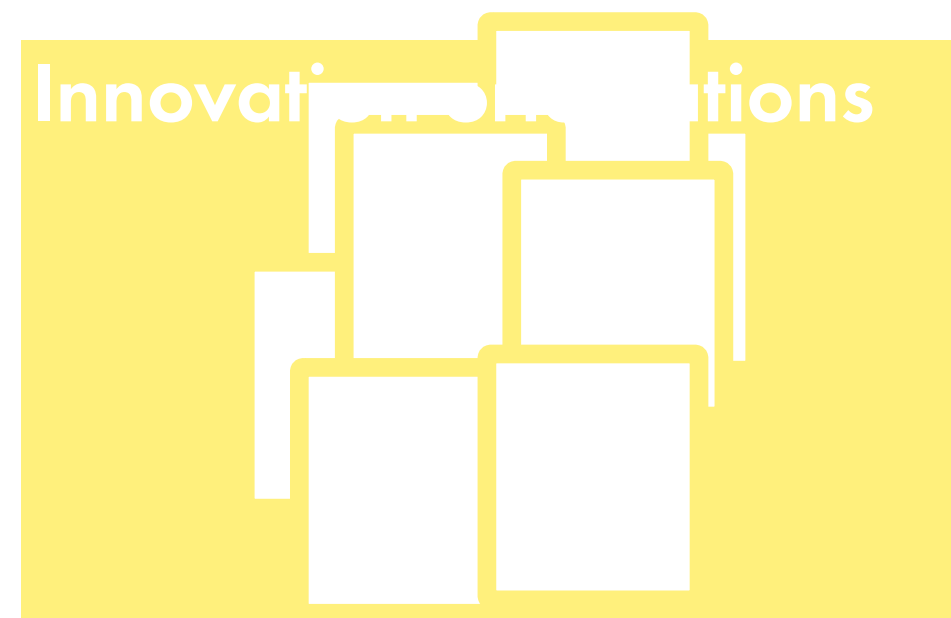
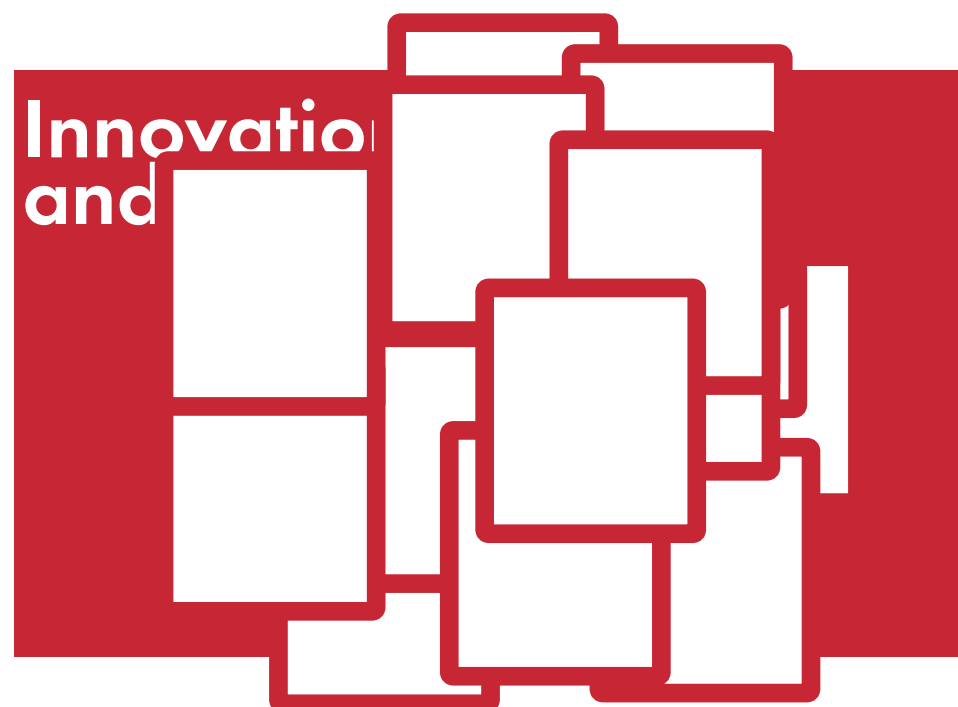
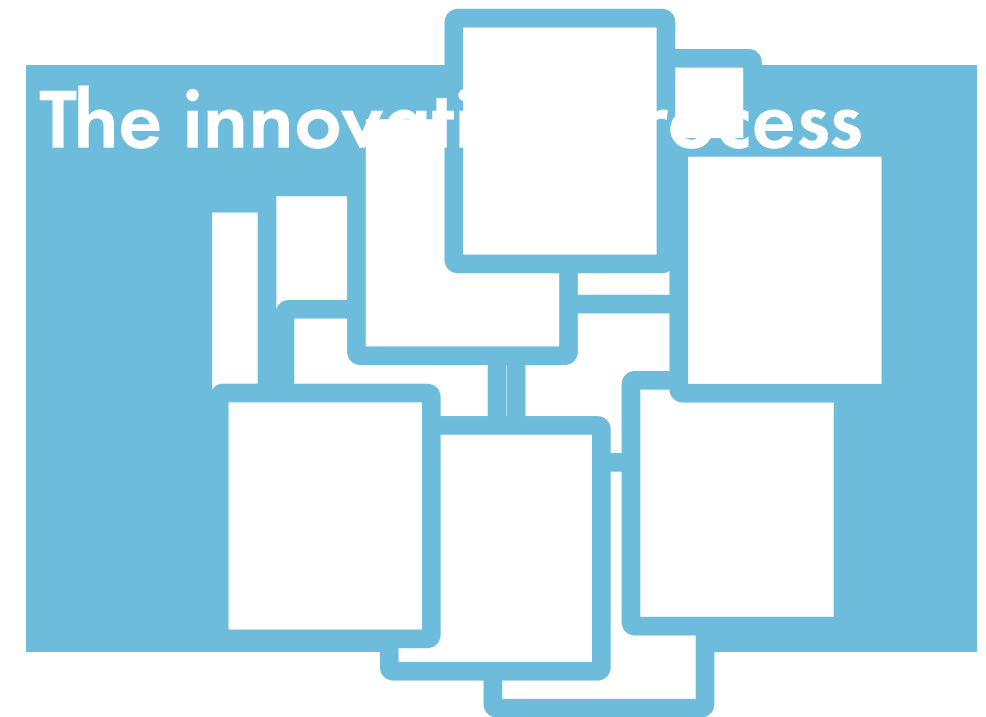
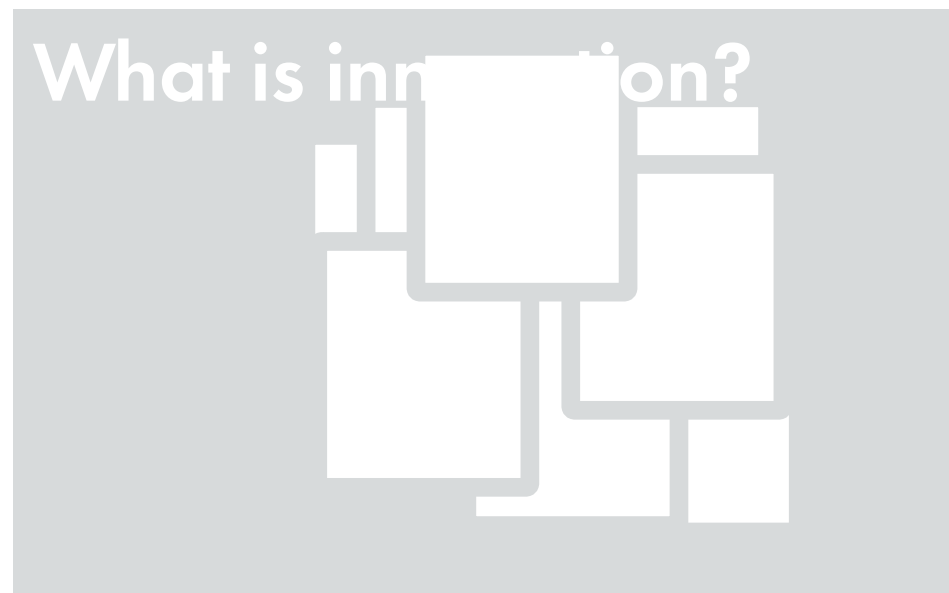
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What is innovation?

An innovation is a change that creates **new value** or **improves the delivery** or **capture of value**.

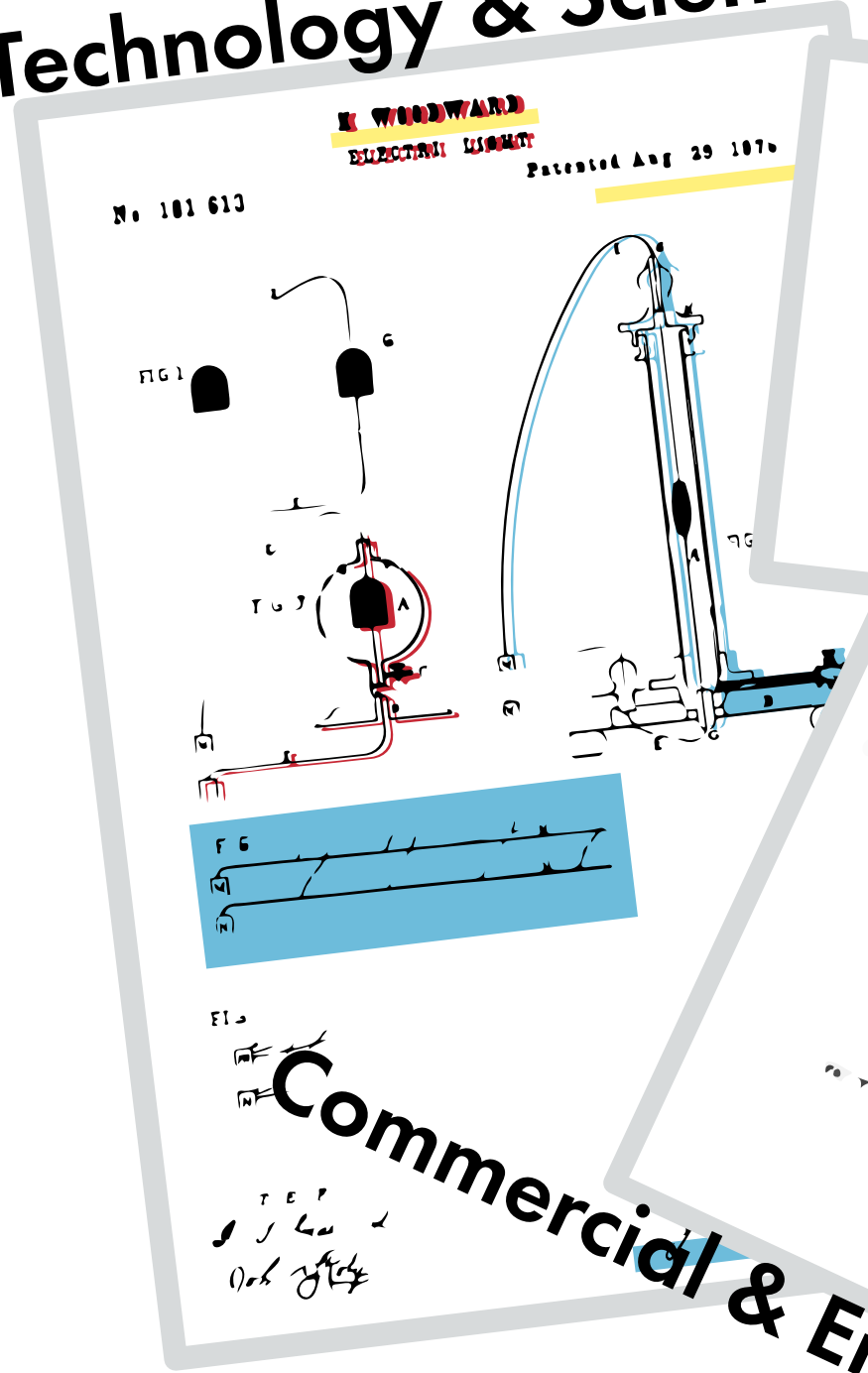
Innovations exist in many forms, from product to social movement; at many scales, from new-to-you to new-to-the-world; and in many degrees, from radical to incremental. The success of one innovation often requires the success of others in parallel.



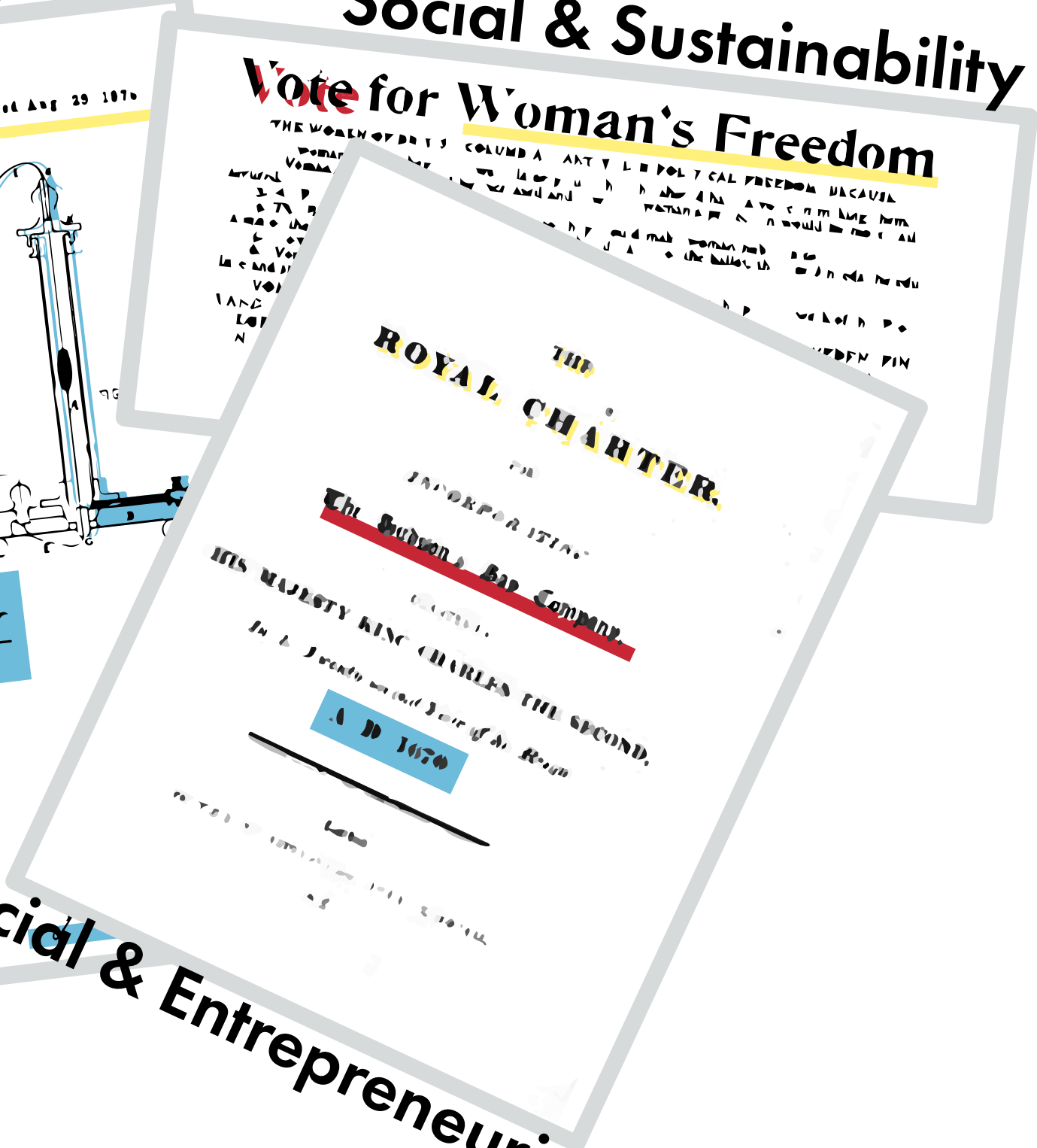
Innovation often results in new knowledge, relationships, and spin-off innovations.

Innovation Orientations

Technology & Science



Social & Sustainability



Commercial & Entrepreneurial

<https://systemicdesign.kumu.io/the-innovation-process>

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Innovation is...

Fractal

Systemic

Indiscrete/Continuous

<https://systemicdesign.kumu.io/innovation-skills-competencies-modelling>

Innovation orientations

Abstract, generalizable definition of innovation
useful across orientations

Universal innovation process model

Lessons & Contributions

Overemphasis on entrepreneurship
and technology in innovation strategies
and policies

Overemphasis on aspects of the innovation environment
and underemphasis in how we create and nurture innovators

Three inquiries:

Innovation

Innovation education

Innovation education in NL
Research Question

What are the skills and competencies required to be an **innovator? What are the **learning constructs and outcomes** we can design to help a **learner** achieve proficiency in **these skill and competency domains**?**

Research Question

What are the skills and competencies required to be an innovator? What are the learning constructs and outcomes we can design to help a learner achieve proficiency in these skill and competency domains?

Methods

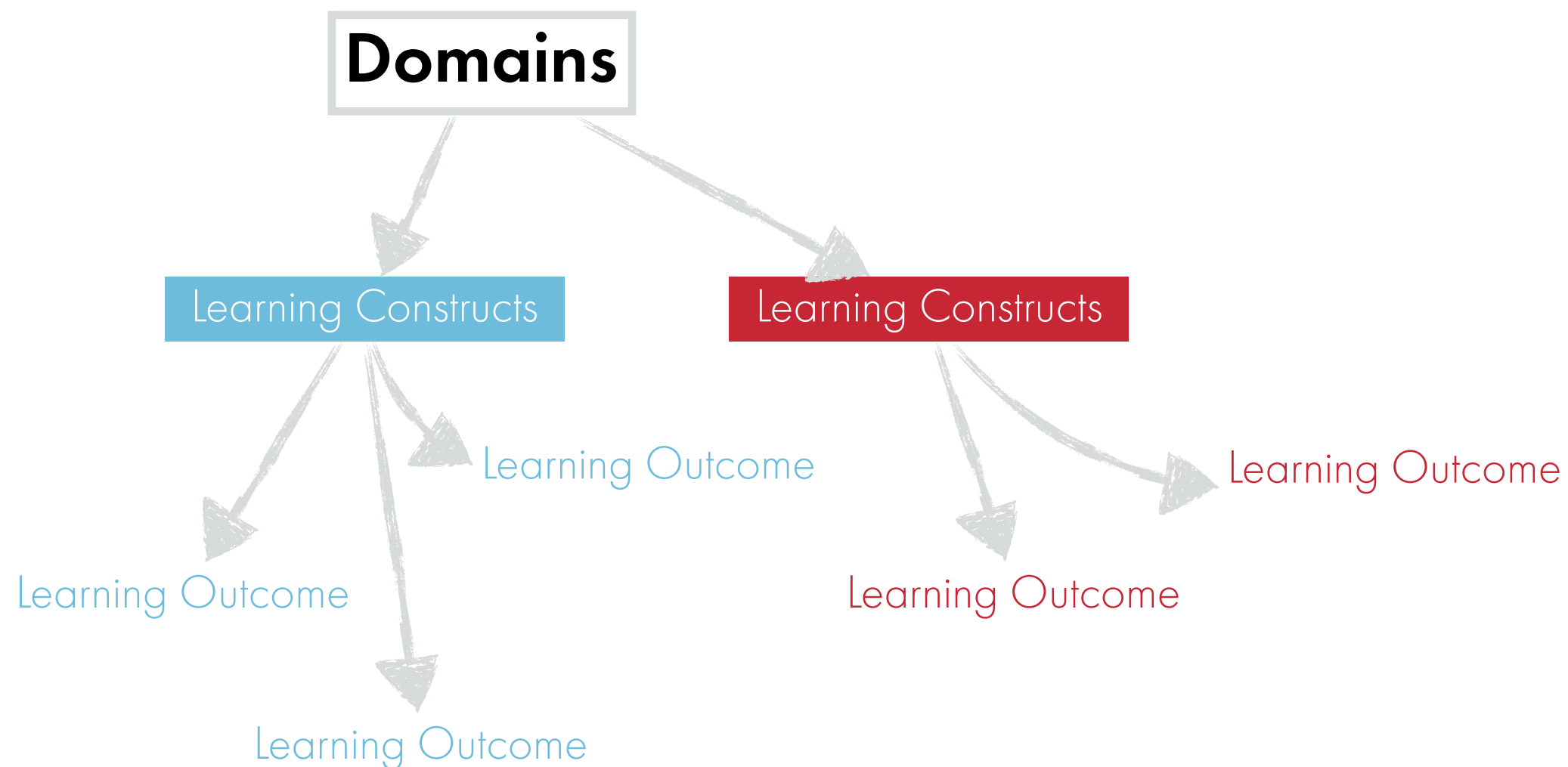
Instructional design & education literature

Concept mapping & design synthesis

kumu.io mapping

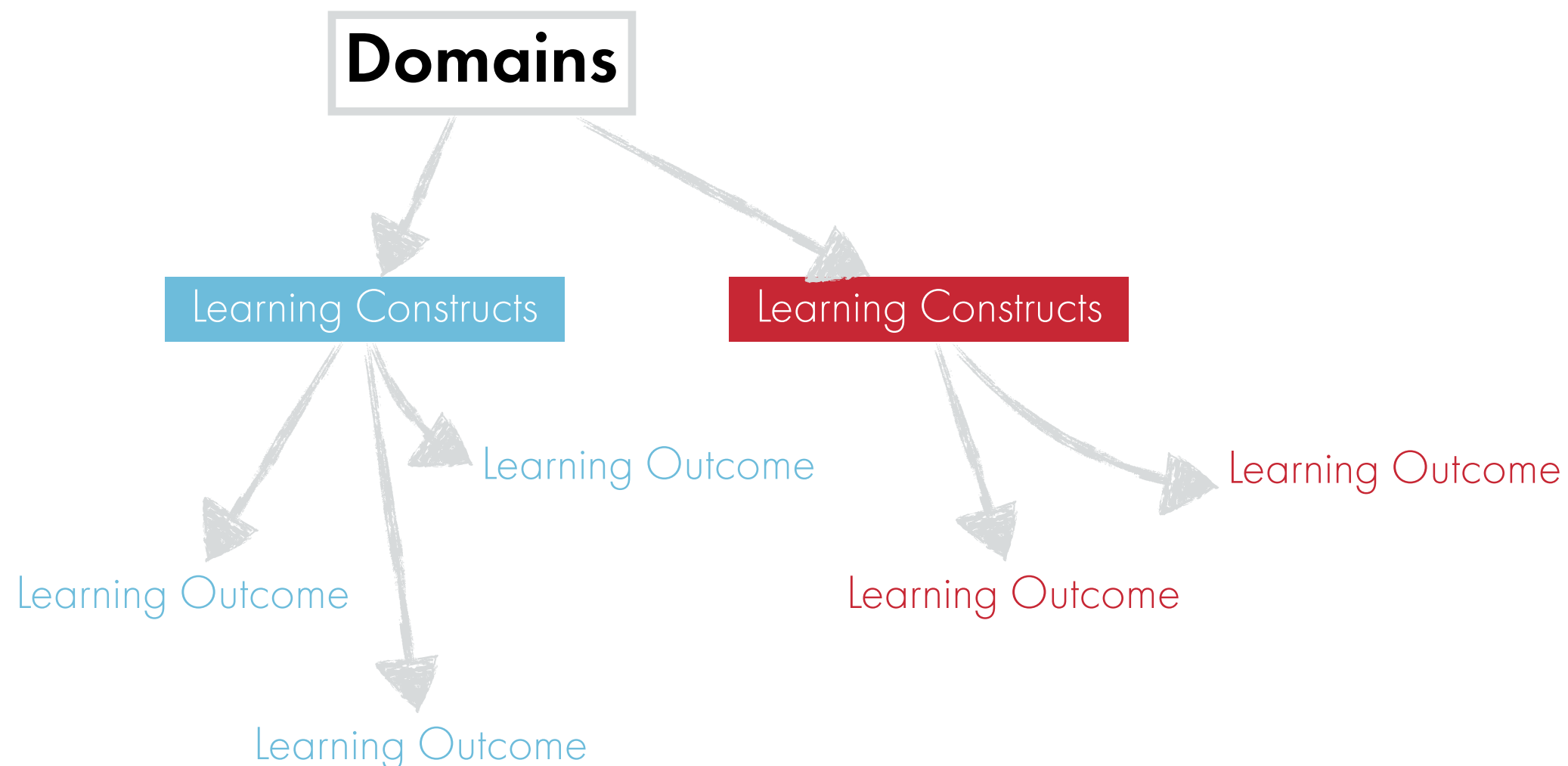
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Research Question

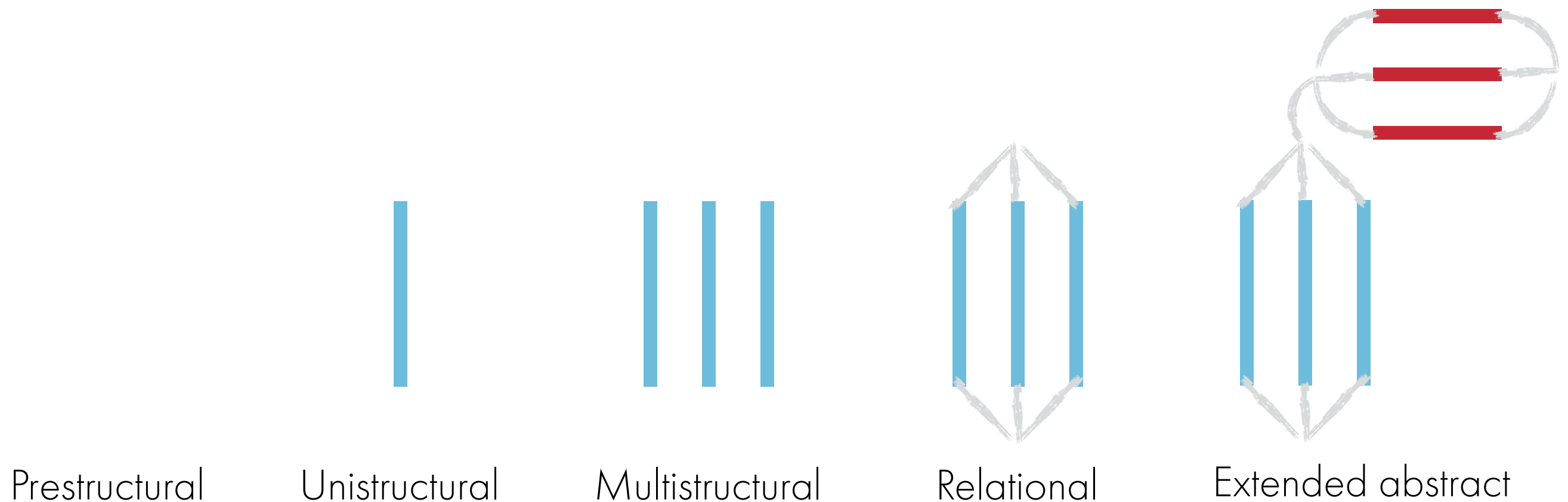
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Research Question

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Adapted from Biggs & Collis (1982)



<https://systemicdesign.kumu.io/a-model-of-innovation-education>

Comprehensive model of innovation skills and competencies



Contributions



Curricular outcomes for innovation education

Innovation Auditing