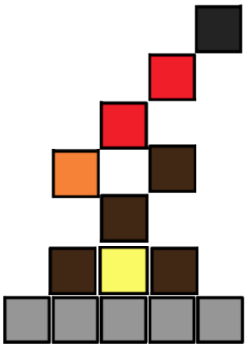

maplesync

A Collaborative Strategic Economic Planning Platform for Canada Inc.

kernel | sketchbook for a long term Covid-19 economic response*

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Created 25 May 2020 - Toronto, Ontario, Canada

Version 4.12 - 14 June 2020

Website & Twitter

Wiki

Github

purple plenty movement

***OR:**

THE NUCLEUS OF A SOFTWARE UPGRADE TO CAPITALISM

*A PLAIN LANGUAGE VERSION IS IN THE WORKS

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"Don't throw the baby out with the bathwater!"

-Recurring conference theme of Rethinking Economics 2014, New York City, USA

#HINDSIGHT20/20
#HACKSTAPLETHESIS

"We know more than we can tell." /

"Show don't tell." /

"Everything is a Remix." >

---> Michael Polanyi, Hungarian-British polymath / Anton Chekhov, Russian Author / Kirby Ferguson, Canadian YouTuber

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In Memoriam
Dr. Glenda M. MacQueen
1965 - 2020

Acknowledgements

Thank you to my girlfriend and all the friends, classmates, teachers and family (and especially my Nana) who helped me iterate and refine this idea and document. It would have been impossible to produce this without them. They will be acknowledged individually, as they wish, at a later point. In a way, this is a manifestation of the collective intelligence of my community and network as much as I may have crystallized it. Finally, we are all Treaty People.

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Abstract

How might we make our common economic future more inclusive? How might we collectively indicate sustainable and inclusive pathways to prosperity? The purpose of this document is to communicate the basis, or kernel (a computer science term for the core of an operating system (OS)) for a distributed decision making, open-source social-computing-system. This system kernel is designed to encourage the creation of tools that encourage more efficient and effective macroeconomic coordination through a fusion of democratic deliberation by heuristically 'balancing the humors' of collective intelligence: markets, communities, algorithms, democracies and hierarchies. Maplesync, named for a classic case study in the transdiscipline of cybernetics but adapted for the Canadian context, will aggregate and confederate a system of systems of existing and new ideas towards an ideal of cohesiveness and interoperability. The reason for creating maplesync is to increase prosperity equitably while respecting the hard boundaries of human needs and planetary limits. Maplesync platforms will include the voice of citizens in their common macroeconomic future by leveraging our collective intelligence. Many issues are to be sorted, but this document is intended to be the catalyst for massive change through the collaborative design of many clever minds. **Simply put, maplesync is reddit for econ: a system to purposefully integrate knowledge from across an economy to address human needs, respect planetary boundaries, and co-create pathways to prosperity.** This document introduces, gives technical specifications, next steps and precedents (in that order) for the foundation of such a grand project.

Key Takeaways

- There is an opportunity to increase Canadian prosperity through distributed decision making.
- I believe that co-creating an open-source online community platform for strategic planning is the answer.
- Inclusiveness and accessibility allowing for information integrity is critical for the efficient and effective functioning of distributed decision making for this platform.
- This project holds at its core that solving the economic calculation problem (ECP) is critical for understanding how an economy functions and how it can function more effectively.

Intended Audience

- Social technologists, economists, funders, social innovation incubator/accelerator

purple plenty movement

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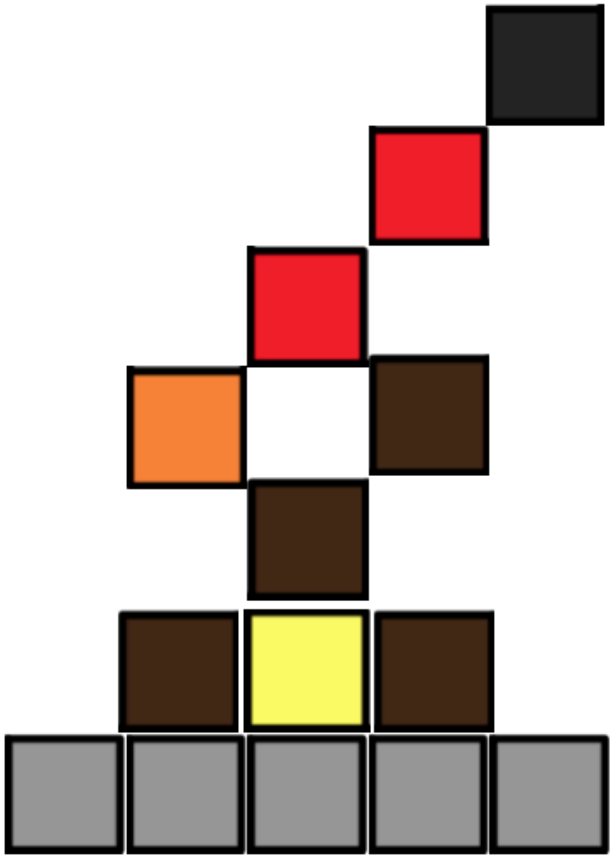
1.Introduction



"Value is a process of valuing."
-John R. Commons, Legal Foundations of Capitalism (1924)

"Nowadays people know the price of everything and the value of nothing."
—Oscar Wilde, The Picture of Dorian Gray (1891)

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Mission

To socially-construct a digital space to disagree and reconcile about our big-picture, shared direction.

1.1 Introduction - charting *"a new course"*

Maplesync is the founding project in the emerging discipline of Economic Systems Design (ESD). I define ESD as:

> *"The study and practice about how markets interact and how information flows through a political economy."*

As a practical, participatory expression of that discipline, maplesync is an internet-based information and communications technology platform (IICTP) focused on building strategic plans for Canada democratically. These indicative, open-source strategic plans will help to identify a plurality of sub-strategies and missions to build a more competitive Canada and will encourage their implementation. The purpose is to contribute to holistically increasing our national wealth.

This unorthodox document is intended to demonstrate why maplesync is an improvement upon the markets and institutions we already have. If we think of Canada as Canada Inc., in other words a very large firm or company, it is currently making some irrational business decisions. For instance, there are immense barriers between interprovincial trade and a failure to utilize and capitalize on our own resources.

Maplesync is a parallel and, ideally, influential manner to find solutions to these problems that are palatable to the majority and plurality of citizens - and co-created by ***US***. The project will include a large portion of Canada's brainpower to produce ideas and plan alternatives in support of individuals, families, communities, entrepreneurs, enterprises and governments.

For Canada to flourish in the 21st century, I believe we must be "hewers of pixels and drawers of data", alongside being "hewers of wood and drawers of water". We need to build a thoughtful and inclusive new nervous system for our economy.

As an open-source project, the platform we build here in Canada will be able to be replicated for local contexts around the world. To build this platform, maplesync participants will aggregate and integrate digital tools made around the world that address the ecosystem of problems that maplesync points to while also making them accessible for further global iterative tinkering. It is an economic development project of grand proportions to make the most of the internet age with respect to macroeconomic decision making.

Feedback is welcomed and needed!

O N W A R D

- gceh

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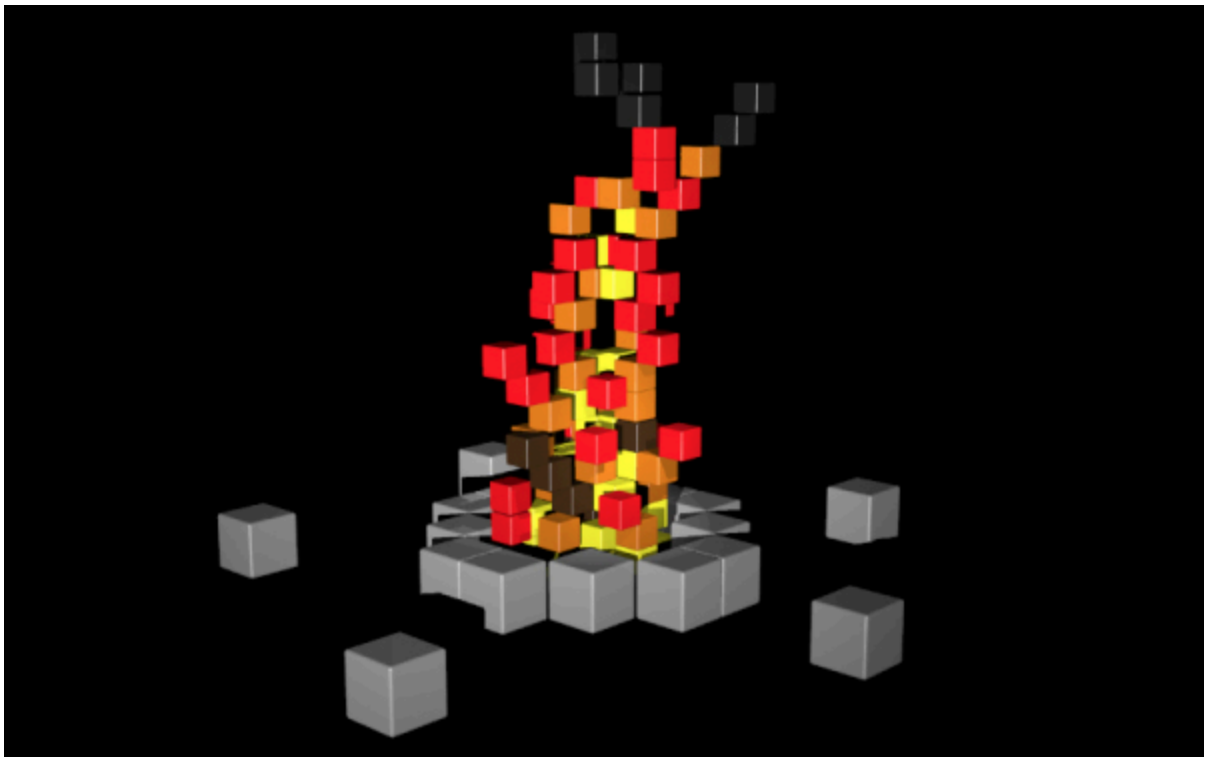

"Management is far too important to be left to the managers"

- Dr. Paul S. Adler, University of Southern California Marshall Business School in his 2019 book *The 99% Economy*

"The future is already here, it's just unevenly distributed."

- *William K. Gibson, Science Fiction Author, quoted on National Public Radio (NPR) in 1993*

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1.2. Grand Vision & Inspiration

Maplesyncs could be the OS* for the new economy. Let me go "Carl Sagan" for a minute.

I believe that the future of humanity relies on new forms of information management and decision making structures to allow us to grow into increasingly larger forms of organization. We need a grand challenge to collect and coordinate a diverse effort towards this noble goal.

Why? We started in families and tribes on the savannah. We built villages, then towns, then cities, then civilizations. We had to decide, fundamentally, the eternal question of "who gets what: why, how and when?".

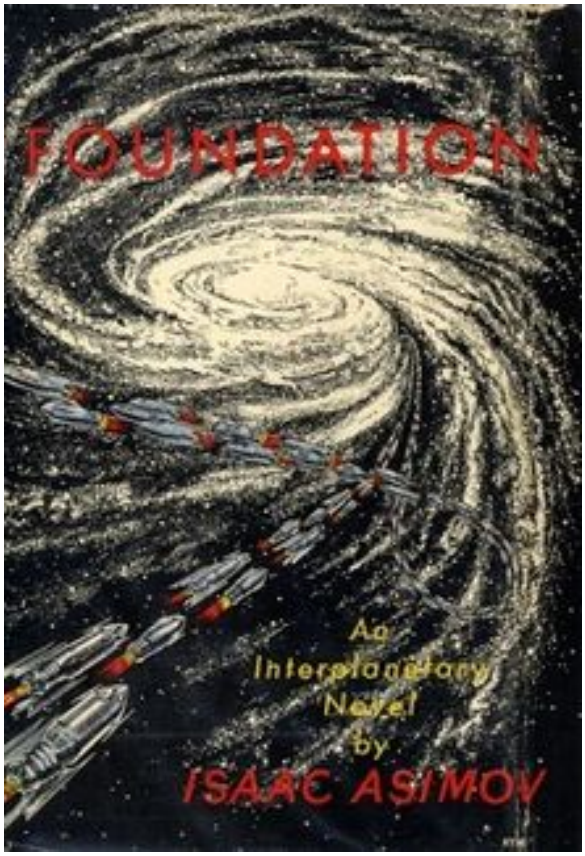
This is a paradigm to iterate and explore answers to this question on a massive, but ultimately practicable, scale. It is about creating a digital artifact to thrust our understanding forward.

*Operating Systems
The Indigenous peoples of the prairies of Southwestern Alberta, Canada used what is now the UNESCO World Heritage Site, Head-Smashed-In-Buffalo-Jump (pictured above), as one of their holistic sources of economic flourishing (in my words). I imagine, and evidence suggests,

that they planned the logistics and strategy of these massive buffalo jumps together, around the campfire.

Our descendents among the stars will thank us for embarking on this omegaproject. I believe maplesync, or something like it, will be one of the bases of their interstellar civilization.

But more importantly, now, the earth and the people who currently have no voice will thank us too. Once we simply figure out how to bring ***US ALL*** around the digital fire.



What's behind the name of maplesync? It brings the seed of an idea which was Project Cybersyn (below) in 1970s Chile into the 21st century context. Maples (plural) refers to the maple tree, Canada's icon, while sync refers to synchronization in both French and English, our two national languages. Sync is also a near homonym to the French word for the number 5, which refers to the late cyberneticist Stafford Beer's 5 layers of the Viable System Model.

1.3. A Note on Theory- introducing the CH@GCEH& Triangulative Coordinates

I would like to introduce what I understand is a novel intellectual contribution to the field of political economy and economics. I am calling the new sub-transdiscipline, Economic Systems Design (ESD), that allows for the intellectual flexibility to produce this concept, 'Cybernetic Political Economy'. First, recall my definition of ESD:

> *"The study and practice about how markets interact and how information flows through a political economy."*

the coase-hayek-@gceh& barycentric coordinate system of economic systems design*

Formal Definition: *the balance of which economic coordination in an economy is decentralized (free markets), centralized (command planning), or distributed (p2p - free association of producers).*

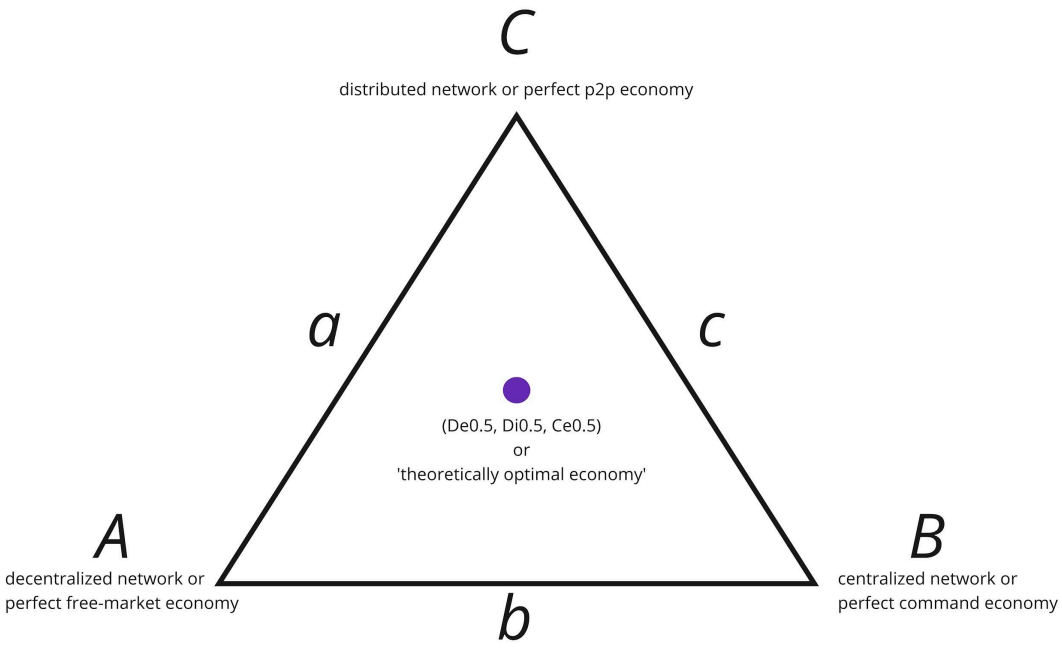
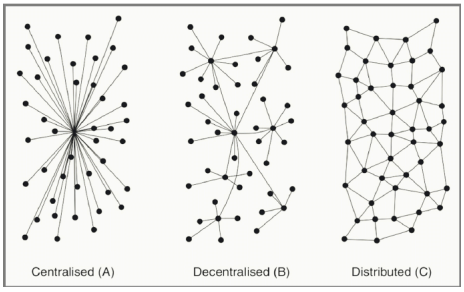


*diagram by @gceh

tags: *fractal, emergence, recursion, complex adaptive systems, Möbius, evolution, computation*



*legend sourced from Jason Hoelscher

Question: where do you think Canada or any economy sits on in this framework?

I have named this crystallization for 20th century economists Ronald Coase (who wrote about the theory of the firm and transaction costs) and Friedrich von Hayek (who wrote "The Use of Knowledge in Society" on planning vs free markets"), this coordinate system, inspired by the Gini Coefficient of inequality, allows us to conceptualize the information processing mix of an economy - with Mirowski's markomata. I make the assumption that economies are like emergent computers. I add my initials as I believe this is an original concept - at least in the application I am talking about.

As far as I can see, this framework is applicable to any possible conceivable scale of economy. It can be used descriptively and prescriptively: in other words, to explain existing cases of economies and to generate local-optima, or possible models of completely new ones.

The coordinate works on a scale with 1 as the most extreme possible value for each ideal network type.

> ***A:*** *Economy is perfectly decentralized, capitalist-corporate, and with individuals and firms competing with each other in totally free markets to determine economic allocation and coordination.*
>
> *ie. : balance of walmarts and independent plumbers collectively in competition*

> ***B:*** *Economy is perfectly centralized, authoritarian-planned and managed, and with a quantum supercomputer as the only unit of the firm which computes an imperative micro, meso, and macro economic plan to determine economic allocation and coordination.*
>
> *ie. : humans relinquish economic processing to a central computer which gathers data about all needs and develops a calculus to fulfill them - total cooperation*

> ***C:*** *Economy is perfectly decentralized, anarchic-self-organizing, and with individuals as the units of the firm in free-association with each other to determine economic allocation and coordination.*

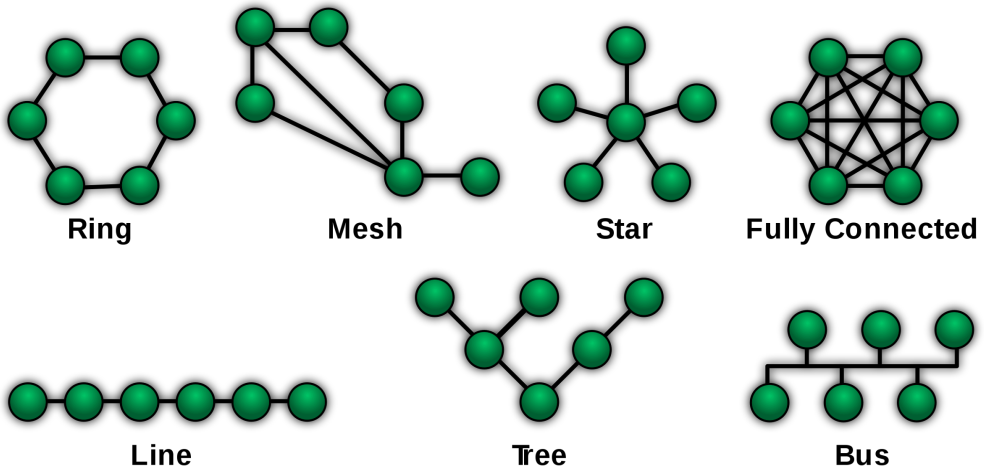
> *ie. : no governments or Walmarts, only a massive market of millions of interconnected "subcontractors" balancing coopetition - competition and cooperation*

This is a relative scale, and we could begin to place nations in relation to each other along the scale. What will be interesting is to compare the United States to China. While China is by definition considered more planned than the US, the US does indeed have a massive military industrial complex and huge corporations which contribute a great deal to running allocation and coordination. p2p would be interesting to look at. Therefore, on this scale, they might be more similar than initially thought.
The theory of change for maplesync is about finding the local optima of balance between these extremes for the efficient and effective functioning of an economy's pathway to prosperity. Maplesync is an opportunity to seek out this optimal mix for Canada as a nation, but it also may be applied to local, regional, provincial/state, continental and global contexts. It is important to note that there is no global optima.

As you may have gathered, this project rests on the assumption that markets can be designed. Fortunately, this is the conclusion of numerous recent winners of the Nobel Prize in Economics.

We will expand on this concept in a forthcoming academic paper, but I will go through some of the implications in this section.

As an example from Wikipedia, network science tools can be used to analyze the diversity, plurality and ubiquity of economic systems.



Questions:

- What exactly does the centre point, identified in the diagram, look like in practice as a theoretically optimal economic system design?
- How might this tool be used creatively?

- How might it be used analytically?

1.4. Metaphor: Building the "Thinking Fast and Slow Economy" of the Future

Imagine you have to pick up some groceries and milk at your local corner store. In terms of your thinking, there are two ways to get you there and to get the groceries you need. System 1 is the automatic, fast thinking brain. It will control your ability to walk and intuitively navigate your way to the store and to intuitively identify connections between what you perceive and what you want. It will get you there, but you may become distracted. You may get lost and take a longer route, or you may let your hunger get the better of you and spend money on candy you don't need. You might even go and forget to buy the very milk you came for!

That's where system 2 comes in. This is your deliberate, slow thinking brain. This helps you think ahead, deliberate and plan choices: to make a list of what you need, to draw out a faster route, and to stay focused on the mission. However, overreliance on system 2 can also, expectedly, slow things down. One might also miss the opportunity to try something new, something that the emotion of system 1 can catalyze. The lesson is we need both system 1 and system 2 - both process information differently. Indeed, we need a balance of both.

While this framework was developed by Dr. Daniel Kahneman, the Nobel Prize winning Behavioural Economist, in terms of human cognition, I believe that it can be applied to another system - the economy. System 1 can be thought of as markets, and system 2 can be thought of as planning. For the same reason that humans need a balance of both for what we have achieved as a species, the future will require our economic systems to have a balance of both to ensure our continuing prosperity and survival, as well as that of everything we share the earth with. As economist Friedrich von Hayek said, the central tenant and caveat to this all is that both systems work best, to support liberty and prosperity, when they operate freely and democratically in terms

of information flow - though his conclusion was that the market was the only way to go. This has been one of the central questions in economics since at least the 1920s. But, given the economic upheaval in the world today, I believe that we must revisit the answer.

The maplesync endeavour sets out to catalyze a plurality of experiments in finding the local optima between markets and planning around the world. And it will start in Canada as project maplesync to supercharge and revolutionize the Canadian economy for prosperity, equity and ecological flourishing.

1.5. Project MapleSync - Overview - "Towards a Smart and Caring Nation"

WHAT: *a democratic and inclusive indicative strategic planning platform (DIISPP) driven by real-time big data and collective intelligence featuring quadratic voting, open innovation and wikis - a participatory economic information nervous system.*

It is one part Wikipedia (knowledge platform), one part Reddit (content ranking platform), and one part Linux (operating system (OS) platform) but combined to be a distributed economic decision making platform.

WHY: *to supercharge and revolutionize the Canadian economy for prosperity, equity and ecological flourishing by fully leveraging the collective intelligence of markets and planning*

HOW: *confederating a platform of existing and emerging systems and resources (a system of systems) fueled by the participation of Canadian citizens and collaborators from around the world - taking inspiration from eEstonia.*

It will be inspired by the economic futures and pluralist theory Purple Plenty Movement and will source and use as much existing infrastructure as possible.

WHO: *regular people, experts, social entrepreneurs, and social technologists supporting themselves, their communities and the country as well the decision making capabilities of entrepreneurs, non-profits, businesses and*

governments (to be sorted in stages of creation vs input vs democratic participation)

WHEN: *starting now! for economic recovery and so that we come out of COVID-19 with the informational foundations for economic transformation*

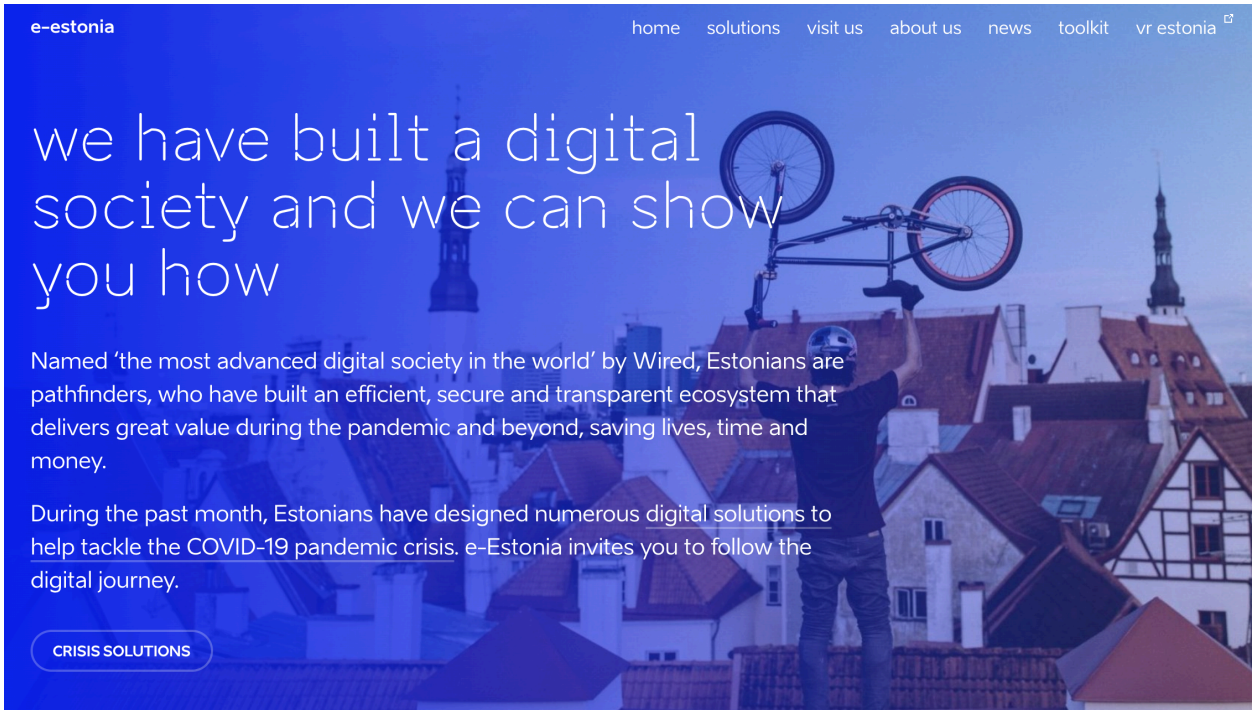
WHERE: *eCanada - built open-source to be replicated, forked, and remixed around the world*

1.6. Everything is a Remix: eEstonia, Project Cybersyn, and Quadratic Voting

What key precedents might we copy, build on, and diverge from? What could anchor the concept of maplesync? I have three main ideas in mind.

All descriptions abridged from Wikipedia.

- **eEstonia:** e-Estonia refers to a movement by the government of Estonia to facilitate citizen interactions with the state through the use of electronic solutions. E-services created under this initiative include i-Voting, e-Tax Board, e-Business, e-Banking, e-Ticket, e-School, University via internet, the e-Governance Academy , as well as the release of several mobile applications.



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- **Project Cybersyn:** was a Chilean project from 1971–1973 aimed at constructing a distributed decision support system to aid in the management of the national economy. The project consisted of four modules: an economic simulator, custom software to check factory performance, an operations room, and a national network of telex machines that were linked to one mainframe computer.

- [Quadratic Voting](): is a collective decision-making procedure where individuals allocate votes to express the degree of their preferences, rather than just the direction of their preferences. By doing so, quadratic voting helps enable users to address issues of voting paradox and majority-rule.
-

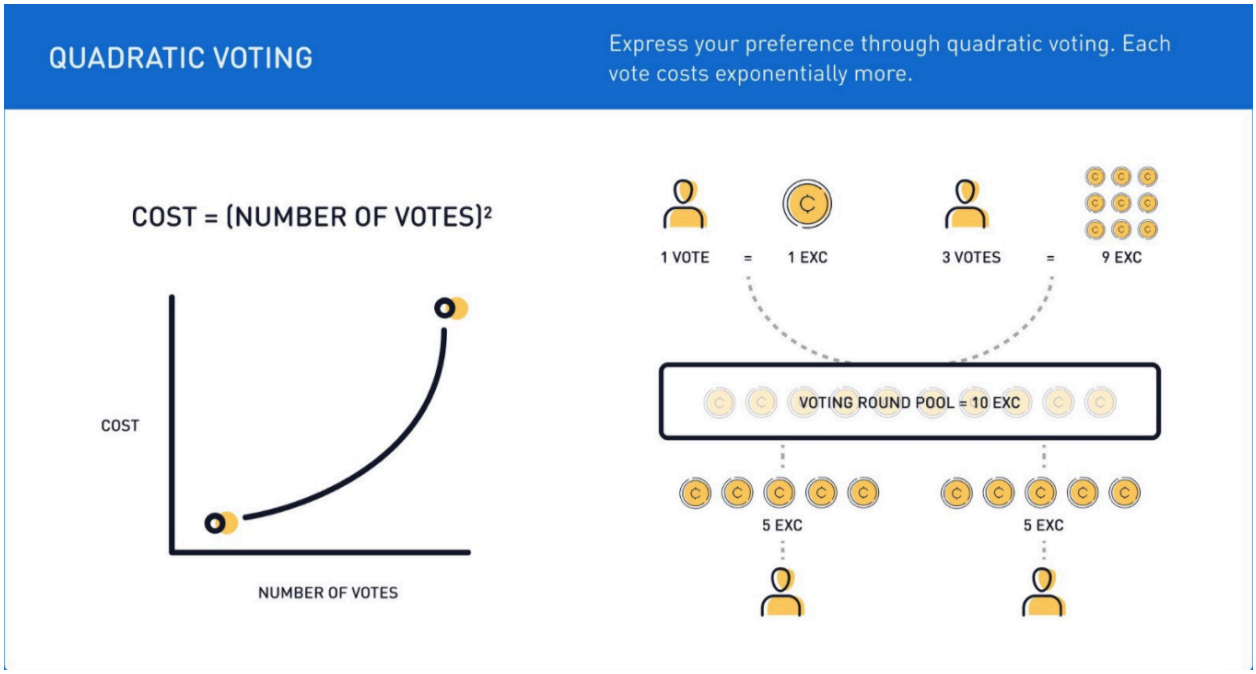


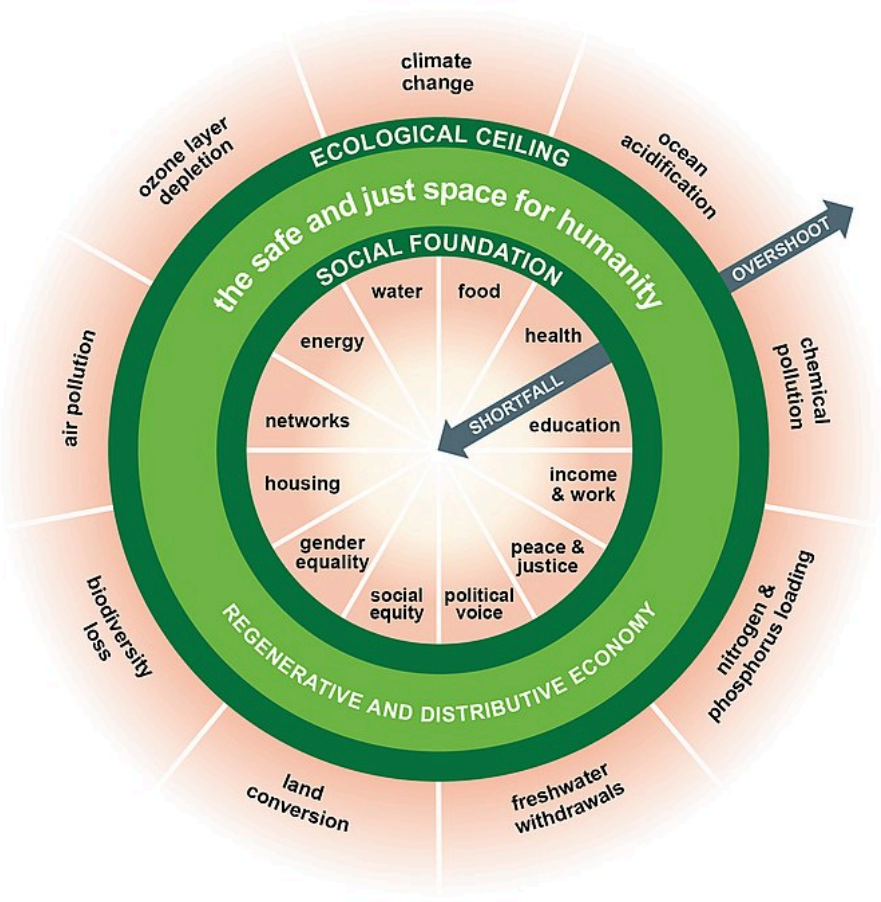
*Diagram Source

How would you mash these 3 concepts up? What weight would you give each? What would you add? What would you take away?

1.7. FAQ (Frequently Asked Questions)

1. ***What problem does this precisely address, and how do we know it will solve it?***

This project holds at its core that solving the economic calculation problem (ECP) is critical for understanding how an economy functions and how it can function more effectively. It is a blend of what I call an aspiration towards "Purple Plenty" - an optimal mixture of capitalist and socialist tools. This embraces a dichotomy and janusian thinking. The specific, material problem is that of economic growth considering the parameters of planetary and social limits - Kate Raworth's Doughnut economics.



2. *What does someone go to maplesync for?*

"Why do we attend to the things to which we attend?"- James Ten Brooke, professor of Canadian Political Economist Harold A. Innis, c. 1913

People will use maplesync systems to express their economic interests - their wants, needs, and vision - in a manner that bypasses the limited informational capabilities of the market and price system. In other words, it allows them to express and seek fulfillment of their needs through signalling collective attention. Maplesync will ideally thoughtfully aggregate this signalling through collective attention to spur action.

For skeptics, this question demands an analogy: why do we vote? There isn't a clear line on what still motivates people to vote in a democracy, but we still do it. I personally believe that the reason why voter apathy has trended upwards in the last 30 years Canadian Federal Elections, despite increased levels of education is because of the increasing complexity of Canada's economic, social and political system. The user interface of elections in Canada is not broken, but it is unwieldy. Maplesync, through an emphasis on design, data visualization, community, fun and user experience seeks to cut through the complexity that I believe hampers participation.

3. ***What is going to pull people in to build, contribute, and participate?***

This is the basic premise of a story that illustrates the latent need for maplesync or something quite like it. Imagine a community that needs something, ie. access to fresh groceries. I want to create a low-barrier of entry for communicating and drawing attention to these issues at the national level that is efficient and effective. Such a tool is like a semantic pointer, it has the potential of creating incentives to fulfill that need and allocate resources to ameliorate the issue. Therefore, maplesync is a soft-power tool of quiet leadership that acts parallel to existing systems in order to expedite action through social attention economics.

4. ***What is the project's theory of change from the current status quo?***

I believe that the technical or operational aspect of this project is the easiest. The technical complexity is not an issue, in terms of scale - these types of systems and even systems of systems already exist. The

challenge is the social: it's about getting that first programmer excited and motivated to build the first piece of software. Getting the first 10 people on the basis of the platform to input their ideas and research. And then getting the first 100 people to vote on the alternatives that the nucleus proposed.

Once one tangible decision is articulated and promoted by this platform, in other words: getting that fresh and attainable grocery store built in the right place for the people who need it, the project will prove, QED (Quod Erat Demonstrandum), its own relevance and worth. Even if it doesn't immediately pay off, that first strategic decision will be an essential basis for maplesync to serve the massive need it was designed to fulfill.

5. ***Will this be truly inclusive, or is this strictly for the knowledge workers?***

   From a design perspective, inclusivity - whether it be of mothers at home to blue collar workers to people with disabilities- is a core concern of the maplesync project. In addition, maplesync emphasizes the idea of Universal Basic Income and the 4-day work week in Canada for all people. This is to help create the opportunity for dedicated common time for democratic participation, volunteerism , passions and entrepreneurship including maplesync as an economic platform, but of course the larger society and culture.

6. ***What kinds of unintended consequences or perverse incentives (such as moral hazard) might this cause?***

   This is a key subject of concern, and at present concerns will be identified to both solve and experiment solutions by sharing this document and

getting feedback. At a fundamental level, adding a new level of democratic participation in large scale economic decision making (beyond the personal) for a large diversity of people is an experiment. Research suggests, and intentionality directs, that it will hopefully cause a positive transformation of our economy towards increased sustainable growth, prosperity and flourishing for all. There are a lot of issues that arise when attempting something like this on the internet, but I believe it is possible to approach these problems by using collective intelligence design and co-design.

7. ***How would combinations of systems forming maplesync integrate to achieve the goal?***

   As a confederacy of systems, it is essential that all these pieces not only interrelate, but are cross-compatible, interoperable and communicate with each other. An initial focus and mission towards the production of strategic plans will help guide this system building effort. The system should be recursive and deliver information not only in real-time, but at the right time - guided by the key idea of information integration and simplification. This, as a heuristic design guide, could help to make sense of the system and economic conditions. The efficient and effective flow of information is essential for the success of the project and is a key area for soliciting feedback. Fortunately, there are many models and precedents to look for in terms of the business world and the Cybersyn Project in 1970s Chile.

8. ***Why would people want to work on this?***

   Maplesync is a collaborative rhetorical super-project (moonshot, or perhaps even loonshot), that holds the opportunity to experiment locally for global implications. The vision is for it to be one of the most bold and

audacious social-technological projects of the decade ahead. I hope that diverse participation and co-design will follow. In more realistic terms, co-creation participation could be seen with the precedent to the success of Wikipedia or Linux, with general participation as the unprecedented opportunity to affect one's communities economic futures.

9. ***How will democracy work in maplesync? Besides contributing content and dialogue, how will people vote? What will be the age-of-majority?***

   I am currently considering combining the following four concepts (text from Wikipedia):

   1. Quadratic Voting: "a collective decision-making procedure where individuals allocate votes to express the *degree* of their preferences, rather than just the *direction* of their preferences"
   2. Blockchain (or a similar solution): " a growing list of records, called *blocks*, that are linked using cryptography."
   3. Peer-to-Peer (P2P): "a computing or networking distributed application architecture that partitions tasks or workloads among peers."
   4. Liquid Democracy: "a form of delegative democracy[2] whereby an electorate has the option of vesting voting power in delegates as well as voting directly themselves."

   To summarize the anticipated cone-of-possibilities of combining these concepts, I will describe in summary how voting may work. 1. Basically, participants will hold an equal amount of votes (ie 150), and will be able to assign them, quadratically, to as many choices as they wish. 2. A blockchain will record anonymized voluntary demographic data attributed to each vote - the key piece of data will be whether the voter is a citizen, permanent resident, visa holder, or global contributor. 3. The results of the votes will be transparent and available, and computing of the system will ideally be done across a network of computers and a representative social network community. 4. Voting can be delegated, in part or in whole, by a participant to another participant and so on, and revoked at any time.

Note that the results of voting are non-binding by being purely indicative: the knowledge integration embodied by the aggregated voting process exists to provide decision support and attention investment. Maplesync Is A Parallel / Fourth Sector Social Innovation Platform - not a replacement for governments, corporations, banks, or non-profits.

A government or corporation, for instance, will NOT be bound to act based on the results of maplesync voting. However, it is conceivable that a government could use the maplesync kernel in order to develop their own maplesync integrated into their political and bureaucratic process. eEstonia has already created the framework of how to offer security and a basis for online citizenship and is a model that should be copied (with gratuitous attribution).

It follows, to me given this framework, that comprehensive inclusion is possible and necessary to support information integrity of the outputs of a maplesync confederacy. Therefore, the age of majority should be comprehensive. However, blockchain would note children's votes so they could be recorded but disaggregated from the conventional age of majority.

I am a believer that children's preferences, beliefs, choices and knowledge are still essential to understand for a functional economy. Tools and user interfaces should be created to provide an educational user experience for children... And of course, other methods may be used to represent children, for instance - allowing them to hold school class or community legislative bodies where voting is done on the scale of the classroom. This is an area of curiosity and importance and is imperative to be explored more.

I would like to conclude this section by making it known that I am well aware of the issues of bias and abuse through the design of algorithms. This is a core issue to be resolved, intersubjectively, of the project. Balancing the collective intelligence design humors of democracies, algorithms, markets, hierarchies and communities, I believe, will lead us to an elegant range of solutions to these problems. I believe, when convened, a group of diverse people much smarter than me will be able to reconcile this difficult and important problem.

2. Socio-Technical Specifications

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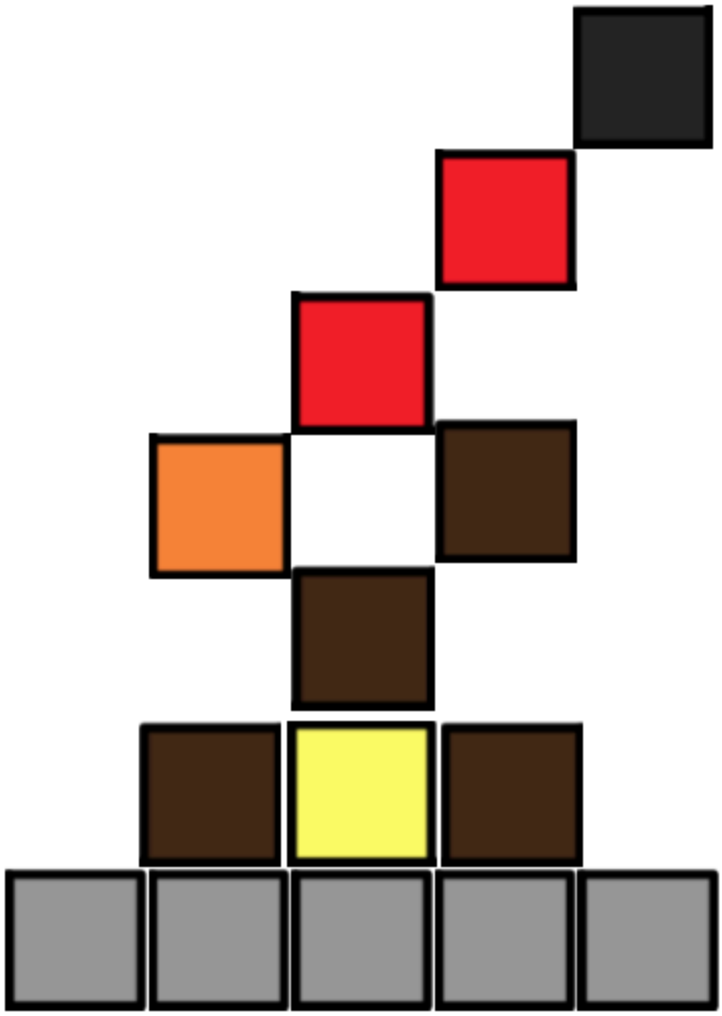
maplesync
A Collaborative Strategic Economic Planning Platform for Canada Inc.



"Theory without practice is empty; practice without theory is blind."
- Immanuel Kant, 18th Century Philosopher

How might we co-create the

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missing link between theory, practice and participation in economics for the benefit of the common good?

purple plenty movement

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How might we

catalyze the generation of alternatives to this prompt:

What does the backend look like of the remix of "the invisible hand of each according to their ability, to each according to their need.*"?*

*Adam Smith, political economist, *The Wealth of Nations (1776)*
- emergence but with transparent machinery
*Karl Marx, political economist, *Critique of the Gotha Program (1875)*
- towards the efficient and effective allocation of wealth

purple plenty movement

2.1. Basic Gameplan

This is a massive change initiative, and a mega-project. The long term goal is indeed to build it out as extensively as possible. However the immediate action is not to attempt to build it - but to envision how it could be built and what impact it would have in order to inspire people to the cause. This order of operations will catalyze the will to build it. This is a Linux/ Wikipedia inspired type project.

For 2020, the goal is to develop a collaborative foresight / speculative economic futures project to envision the system. This will be called the *Purple Plenty Movement.* Purple is a blend of red and blue, or left and right economic ideology. This proto-project will identify weak-signals on the horizons and trends that would form a comprehensive view of the maplesync system in 2025, or 5 years after an imagined launch during the COVID-19 Global Crisis. The output will likely be as simple as a imagined "artifacts-from-the-future": for instance, an op-ed dated 2025 published in a major Canadian news media outlet relaying the fictional story of the project and its impacts (positive and negative). This output will ideally contribute to inspiring a movement to build maplesync or something(s) like it. Crystallizing this imagination will be key. Cybersyn reimagined.

2.2. Proposed Guiding Values and Principles (this section to be expanded on)

Human Rights, especially (for this project):

1. **Universal Basic Minimum Income**
2. **Universal High Speed Internet Access**

Values

- Doughnut Economics - Kate Raworth
- Pluralism
- Transparency
- Reconciliation
- Accessibility and User Experience
- Inclusivity
- Fairness and Equity
- Collective Intelligence
- Open-Source
- Coopetition -(blending cooperation with competition)
- Respect for both the Periphery/Core
- Modularity & Plug-and-play
- United Nations Sustainable Development Goals
- **MEET PEOPLE WHERE THEY ARE**

Principles*

* Developed based on the work of Dr. Mariana Mazzucato, UCL - Legend: ~~Past /~~future

- Fixing Markets -> Co-Creating and Shaping
- De-Risking -> Welcoming Uncertainty
- Levelling the playing field -> Tilting towards a direction
- Picking Winners -> Picking the willing
- Outsourcing -> Capacity Building
- Cost-Benefit - > Dynamic Spillovers

2.4. The MapleSync Confederacy of Systems explained as a Twitter Thread*

**Plain language, 140 character summaries of the parts of MAPLESYNC and their functions*

- ***maplesync*** **-** *Canada's Collaborative Economic Strategic Plans*
    - **A digital democratic platform for enhancing economic growth, sustainability, and equity**

- **MapleStride -** *big-data / collective intelligence "software" foundation*
    a. **Tools that help participants rapidly and easily understand and make sense of economic conditions**

- **MaplesNet -** *connecting the periphery and the core / vice versa*
    a. **Tools that help coordinate and support collaboration and dialogue between participants**

- ***OpsFire -** Collective Intelligence Driven planning & decision making inclusive UI*
    a. **Tools to make large-scale economic decision making open and accessible to all**

- **CANECSIMs -** *Canadian Economic Simulators to anticipate the impact of decisions*
    a. **Tools to "wind-tunnel" or test maplesync co-developed ideas before implementation**

- **MaplesEdu -** *integrative accessibility and fair, inclusive and representative participation*
    a. **Tools to make building, contributing and voting on maplesync accessible and inclusive - creating pathways for participation for people of all walks of life.**

- **MetaMapleSight -** *meta: governance, iterative design and improvement as well as visioning*
    a. **Tools to build tools: tools to build, rebuild, and secure a future-proof maplesync**

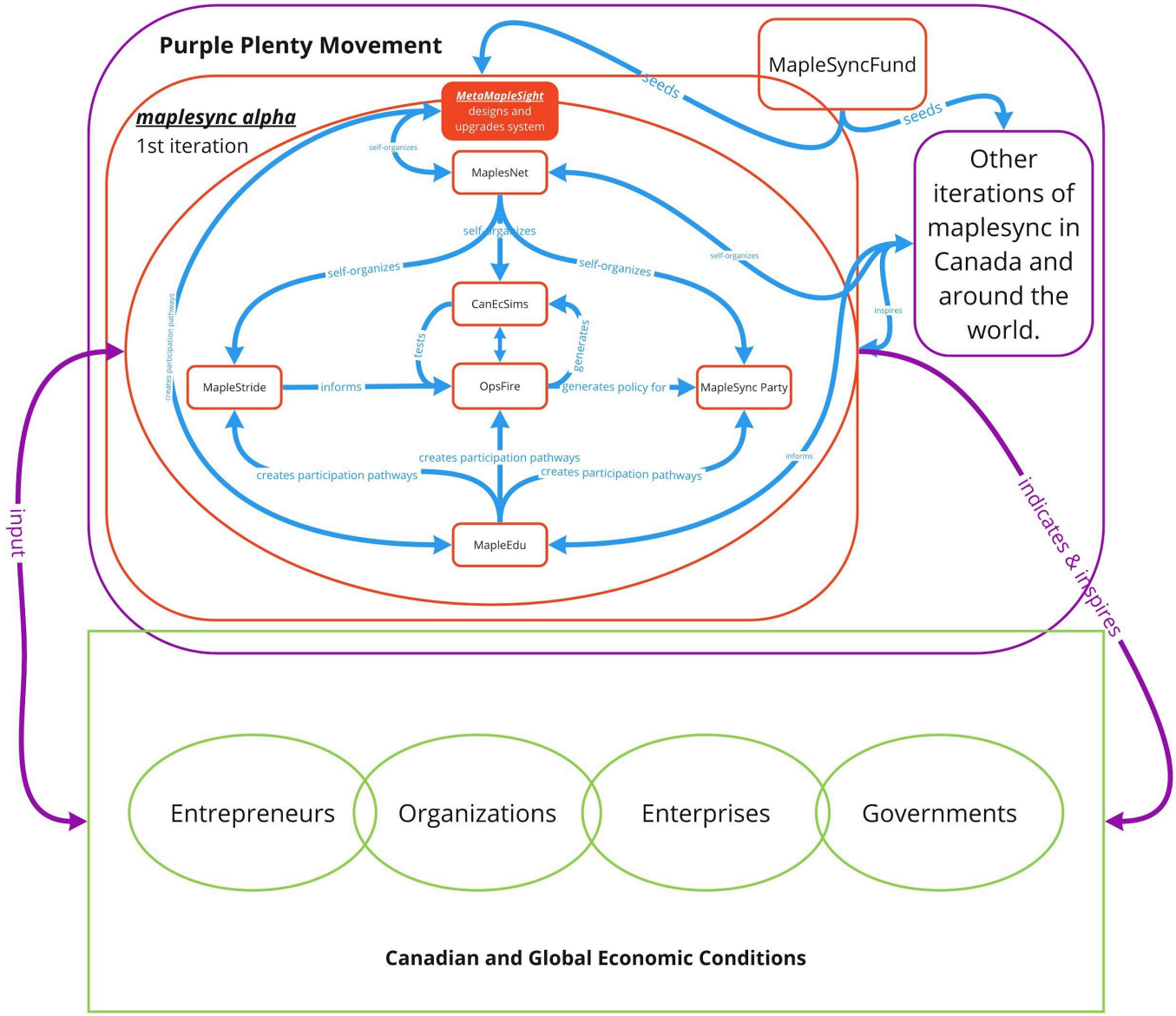
- **MapleSyncFund -** *a community bank or foundation to fund maplesync projects*
    a. **Tools to sustain the maplesync experiment and its basic operations forever.**

- **MapleSync Party -** *a form of Augmented Democracy*
    a. **Tools to collaboratively introduce policy based on maplesync outcomes**

- ***Purple Plenty Movement -** the umbrella organization to encourage reproducibility*
    - **An effort to accessibly and inclusively spread the evolving ideas behind maplesync, and to provide support to projects for locally implementing the maplesync kernel in other contexts**

2.5. maplesync information flow systemigram

*note: maplesync alpha refers to the first iteration of the project



2.6. Detailed Categories of systems that could be included in the maplesync system

Legend: 1. Category of System a. Function Served i. Specific System

- MapleStride - *big-data / collective intelligence "software" foundation*
    a. Sensing & Processing
        i. *DataCan - the reimagining of open StatsCan Data for ease of use - real-time
        ii. *The Price Is Wrong Canvas: Crowdsourced Externality Pricing Heuristic Tool
        iii. *Start-up Launch Date Prediction Market : timing is everything for launch!
    b. Crowdsourcing and Open Innovation Tools and Wikis
        i. *Canadian Open Consulting Wiki - driven by the Business Model Canvas
        ii. *Canadian Open Economic Development Repository Wiki - open source ecology

- MaplesNet - *connecting the periphery and the core / vice versa*
    a. Communication & [Social] Networking - platforum - gather and process information
    b. Serendipity & Creative Destruction Tools
        i. *Serendipitous Networking / Team Formation Application (TBD)
    c. Alternative Value Tracking and Accounting - P2P, Blockchain, ValueFlows
    d. Open Innovation Repository - knowledge and knowhow integration/mobilization

- OpsFire - *Collective Intelligence Driven planning & decision making inclusive UI*
    a. Indicative Planning (DIISP) - key launch feature
        i. * Canadian National Open Strategic Plan - applicable at other jurisdictional levels
        ii. *Canadian Aggregate Strategic Plan Study: metastudy of synthesizing existing plans to identify missing opportunities and patterns to project growth
        iii. * Canadian Open Shadow Budget Project
        iv. * Canadian Economic Complexity Entrepreneurial Road Map
        v. *A Collective Intelligence Driven Work Pathway & Skill Matching Tool

- CANECSIMs - *Canadian Economic Simulators to anticipate the impact of decisions - in silica*
    a. Simulating & Experimental
        i. *Canadian Economic Experimentation, Simulation and Participation Challenge
        ii. *Canadian Economy Value Flow Model - to identify optimization opportunities

- MaplesEdu - *integrative accessibility and fair, inclusive and representative participation*
    Education - to teach people the tools so that they can effectively participate
    a. Media - to promote and encourage participation

- MetaMapleSight - *meta: governance, iterative design and improvement as well as visioning*
    a. Open Foresight - anticipating the future of maplesync and in general
    b. Reflexive Design - redesigning and iterating on the mapleysnc system & system audit
    c. Research - ensuring the system is supported with human-centred research
    d. CYBERSECURITY - integrity and privacy of the platform

- MapleSyncFund - *a community bank or foundation to fund maplesync projects*

- MapleSync Party (POTENTIAL FUTURE) - *a form of Augmented Democracy*
    a. Political party to represent and lobby for the insights of project maplesync in federal parliament, provincial legislatures and local councils

2.7. *Elevator Pitches for 12 Proposed Specific Systems (modules)

1. *Open Strategic Plan (OpsFire)*
   Visualized in the diagrams in section 2.8, this is the iterative process of identifying opportunities to grow and optimize Canada's economy. These plans are parallel to governments and firms, and are indicative - meaning that, obviously, it is non-binding. However, they could be utilized by enterprises and governments to guide their decision making. The ideal is that it brings our actions in line with our desires as a country. There will likely not be one strategic plan produced each period, but instead a variety of options that could be used individually or voted on to aggregate.

2. *Aggregate Strategic Plan (OpsFire)*
   This sub-project involves aggregating all of the strategic plans, across the enterprise, non-profit, and government sectors, across the country. We will use collective intelligence and computation to overlap all the plans to develop a bottom up understanding of where the country intends to be headed. By doing this we will be able to see areas of commonality, but more importantly - develop an understanding of blindspots and missed opportunities. Strategic plan input will obviously be voluntary, but with anonymization if preferred - all in order to create a data rich market.

3. *Open Shadow Budget (OpsFire)*
   Just as think tanks and political parties produce shadow (or parallel, imagined) budgets to offer an alternative to the governing party, maplesync will offer an opportunity for people to do the exact same. The idea is not to command what the actual budget should be, but understand the delta or difference between the people's plan (if, ideally, we can get that scale of representation) and the representative governments plan. The intention is for a dialogue to happen after the shadow budgeting process in order to reconcile the two plans where possible.

4. *Entrepreneurial Road Map (OpsFire)*
   Building on Harvard/MIT's *Atlas of Economic Complexity* , this big data tool, iterated on by the collective intelligence of the platform, will help identify pathways to prosperity for entrepreneurs by identifying export and import replacement opportunities to develop unexpected, but big-data backed, Canadian products and services. It may be possible to develop a more granular version of the tool that maps out global SKUs or barcodes in order to remix existing products and find gaps between them. It will act as a sort of treasure map for entrepreneurial opportunities.

5. *CanEcSims Challenge (CanEcSims)*
   This will be a funded global challenge for participants from around the world to develop accurate computer simulations of Canadian economies. The construction and use of these models will be to "wind-tunnel", experiment, and test the ideas that come out of maplesync initiatives - in order to understand their consequences better and to make better decisions about what to pursue.

6. *Value Flow Model (CanEcSims)*
   The purpose of this is to develop a comprehensive accounting system of the actual physical throughput of our economy. What is meant by this is understanding the material flows of resources, their recipes to create commodities and products, and so forth. If we can model and map how resources are processed, we will be able to identify where sub-optimal wastages occur at the scale of the national economic system. This will help to guide policy, but more importantly, guide entrepreneurs to opportunities that might help optimize or reinvent the entire economy. This system will likely use Resource-Event-Agent (REA) Accounting, and also could be thought of as a treasure map with sponsored bounties.

7. *DataCan (MapleStride)*
   Participants in maplesync must have excellent access to information in order to make informed decisions and other inputs using these tools. Therefore, the information must be easily comprehensible through User Experience Design (UX). DataCan will build off of DataUSA to represent StatisticsCanada and other data sources in a sophisticated but understandable way.

8. *The Price is Wrong (MapleStride)*
   This is a tool based on my undergraduate thesis in the Department of Knowledge Integration at the University of Waterloo. The idea here is to create a game like the *Price is Right* but for externalities. We will crowdsource the impact of externalities, and create as well as debate indicative plans on how to encourage the adjustment of prices.

9. *Start-Up Launch Timing (MapleStride)*
   This will be a prediction market that will allow start-ups to consult the crowd in order to gain input for when they think would be a suitable time to launch. It is theorized that market entry timing is one of the key indicators of a start-up's success. Prediction markets are quite accurate with regards to identifying occurrences of the future. Therefore, we can help to optimize entrepreneurship by gathering unexpected knowledge from across the maplesync confederacy.

10. *Open Consulting (MapleStride)*
    The idea behind this is to allow for small and medium sized enterprises (SME's) across Canada to post their Business Model Canvases to a wiki in order for them to be scrutinized for optimizations and new ideas by the contributors and participants to maplesync. It will offer an unprecedented, open opportunity for SMEs to have consulting services, albeit open innovation consulting services, in order to grow their businesses. Anonymization will be an option. Imagine if a group of students from Truro, Nova Scotia could help improve the prosperity of a business in Nanaimo, BC.

11. *Open Economic Development (MapleStride)*
    This was inspired by the massive unemployment of highly skilled engineers and technicians in Alberta following the oil crash of the mid-2010s, and makes a current assumption that a Universal Basic Minimum Income is inevitable. How might we create a pathway for participation for highly skilled, but underemployed or unemployed individuals, to contribute to economic growth and economic development both in Calgary and around the world - if they wish? This idea takes inspiration from the Global Village Construction Set and proposes that we pursue a variant of that project using Canadian (and global) ingenuity. More specifically at home, this can also be used to help create economic development plans for regions, bands and municipalities in Canada that leverage PanCanadian knowledge and know-how.

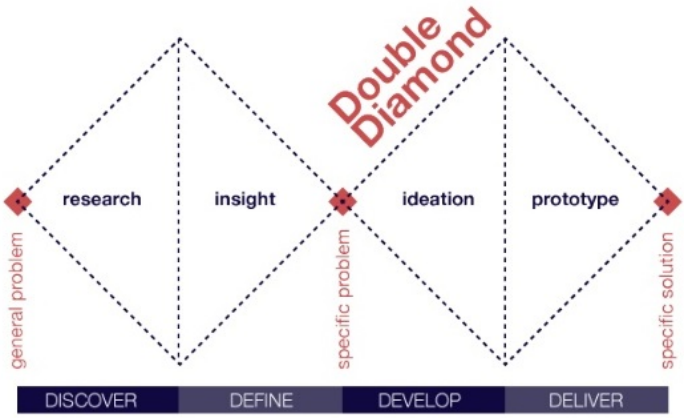
12. *Serendipitous Networking (MaplesNet)*
    Building on the insights of other established random networking tools on the internet, maplesync will require a tool for team formation and to generate unexpected new ideas. Serendipitous encounters through apps like Shapr and Spark Collaboration could help with this effort.

2.8. Preliminary Envisioned OpsFire (Collaborative Strategic Plan Process) System Diagram

[*Link to high-res Miro board view**]

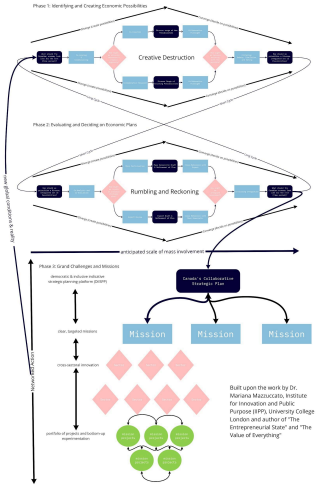
The following diagrams demonstrate how a democratic planning process might flow online at massive scale. Detailed .jpegs are available, as I recognize these are very hard to read.

Essentially, the cycle is a double diamond of divergence and convergence. The first diamond is for developing a creative host of solutions for the problems and vision of Canada's economy, the second is to develop those solutions into a cohesive family or suite of plans. These plans would then inform, ideally, mission driven economy-wide projects. The consequences of these actions then flow back into the beginning of the next planning cycle.

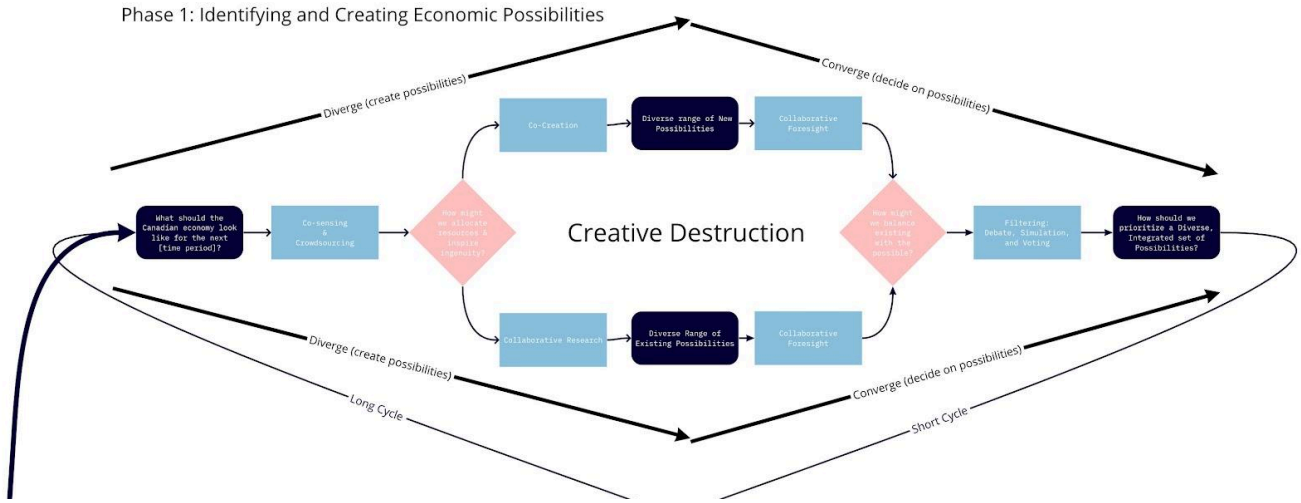


"only variety can absorb variety" - Ashby's Law of Requisite Variety
- Ross Ashby, English Cyberneticist and psychiatrist

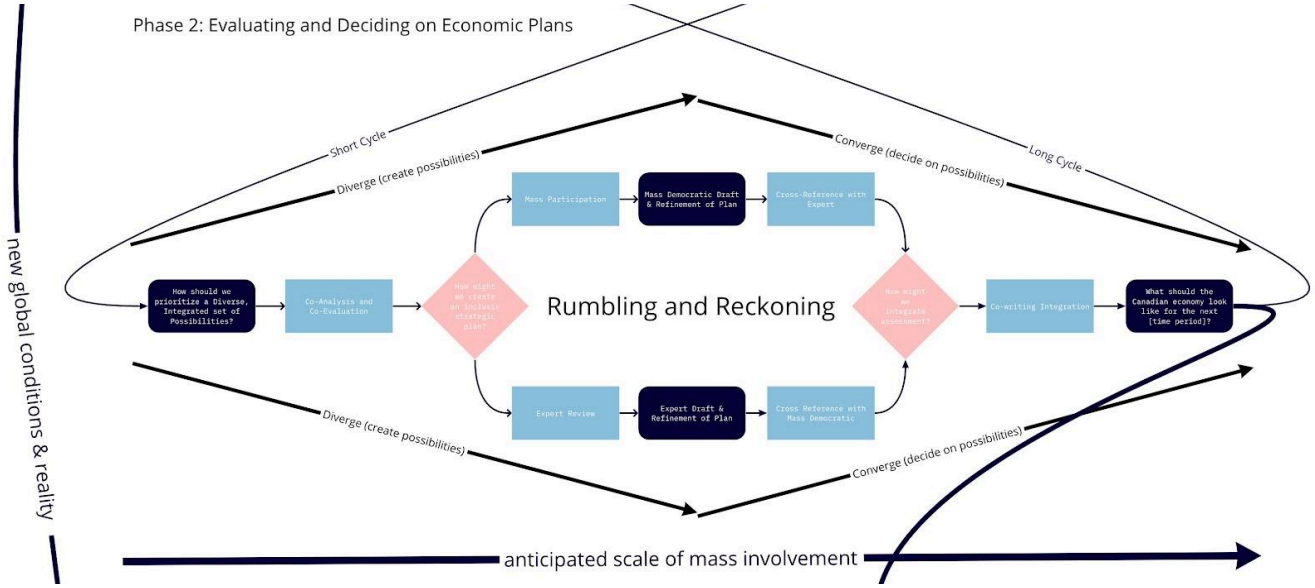
Overview Collaborative Strategic Economic Planning Flow Diagram



1st diamond detail - dual track generative vs analytical techniques



2nd Diamond detail - dual track expert vs non expert review



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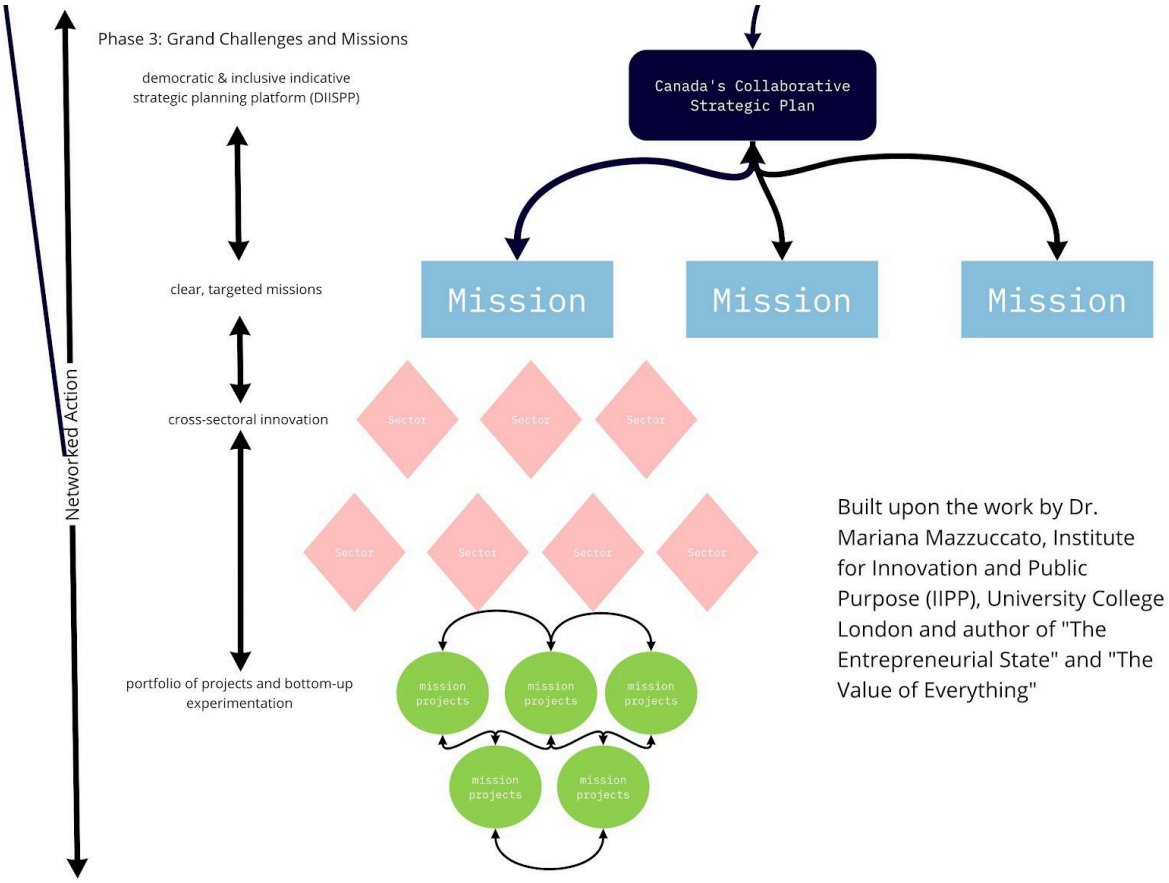
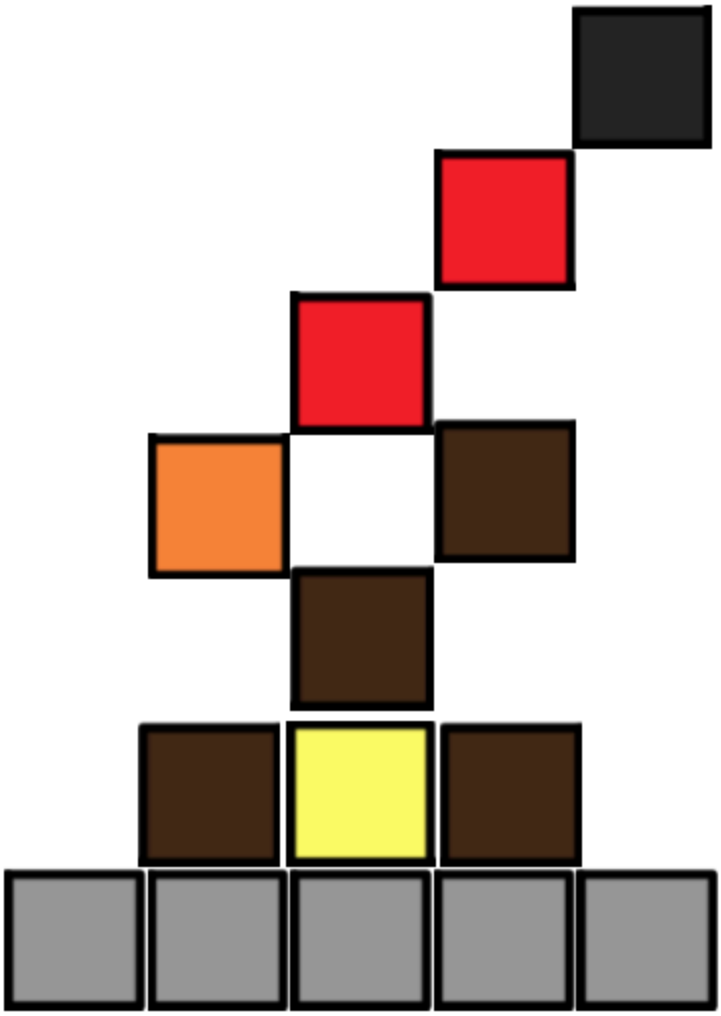
Mission System Diagram - conversion into indicative goal and social incentive network



3.Next Steps



'...from the tiny samaras, the mighty maples doth grow...'

3.1. Invitation to Participate

- Feedback is welcome! More avenues to discuss will be created.
    - Feedback is especially desired
        - On organizing
        - On phasing in
        - On promoting, media and performance art
        - On strategy and legal structure
        - On economic, strategic planning, and accountancy ideas for tools and their function
        - On foresight
        - And much, much more...
- Join our slack channel by emailing Geoff at gcevamyhill@gmail.com

3.2. Forthcoming Sections and Critical Questions

There is a lot to work on to build out the maplesync idea. I have listed some that are top of mind below, in no particular order.

- Systemigram situating maplesync in larger systems
- What are the paradigms and assumptions behind maplesync and purple plenty?
- Causal Layered Analysis
- Glossary of terms
- Reflection on Garbage In, Garbage Out
- Theory of Change - tags: 4th sector, redundancy, membrane, organic pressure
- Appendix
- Create network map of questions
    - What is the Minimum Viable Product (MVP)?
    - What are the boundaries - what is this project NOT?
    - How might we decolonize maplesync?
    - Precedent meta-study: what are the differences in demographic usership between existing social media and open source projects?
    - What does social adoption look like?
    - How might we minimize the amount of work creators vs contributors vs participators have to do to make a meaningful impact?
        - What are the scales of participation?
- **A POSTERITY DISCLAIMER SECTION FROM A CROSS-REFERENCED, PLURALISTIC OPEN CALL OF ELDERS & PHILOSOPHERS INPUTS**

3.3. Conclusion: Imagined maplesync user reviews from 2025: a glimpse of flourishing

“Voting and contributing ideas to maplesync initiatives has been one of the most fulfilling parts of my retirement. I feel inspired and included that I have the chance to contribute to Canada’s vision and goals.”

- Vashti Singh - retiree - Sudbury, Ontario

“The maplesync project is a chance for us young people to have our voices meaningfully heard!”

- Leonard Brown - university student - Victoria, British Columbia

“Maplesync has allowed our territory to have better representation in the national imagination, and for that I am grateful. But most immediately useful are the teaching tools for my classroom - inspiring the next generation to think in systems, with foresight and to think big!”

- Susan Aariak - teacher - Rankin Inlet, Nunavut

“The reports and data produced by maplesync have been useful to my business - I hope what I contributed back in return will be useful to others.”

- Felix Gagnon, small business owner and conservative party member- Trois-Rivieres, Quebec

“Contributing my technical expertise has been a fulfilling hobby, and a joy to share my interpretation of my nation’s perspective to the people in Canada in service of other nations in the world, too.”

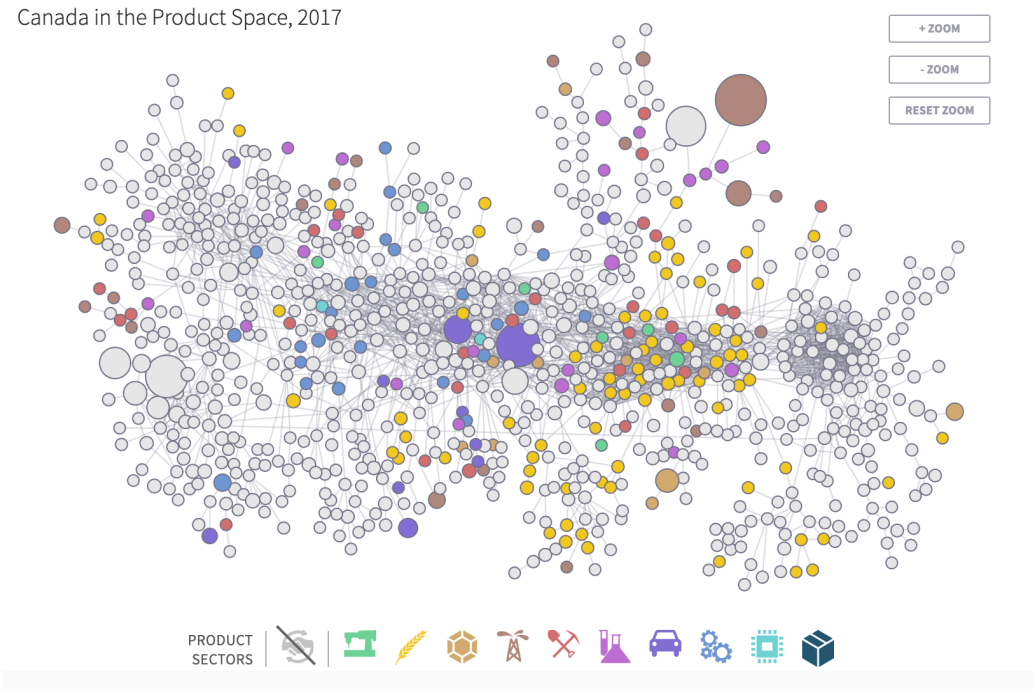
- Mongane Mpe - maplesync open-source developer -Durban, South Africa

3.4. Epilogue

In this spirit, I share the wish that Nobel Prize in Economics (for Market Design) recipient Dr. Roger Myerson (University of Chicago) expressed in his 2007 Hurwicz lecture:

> *"Of course, the later twentieth century provided much evidence of capitalist economic success and socialist economic failure, but a theorist should not give up a good question simply because there seems to be evidence to answer it empirically. If our theories do not give an adequate answer, then we must continue working to develop theories that can, because one can always propose new institutional structures that do not exactly match those for which we have data. If we have no general theory about why socialism should fail, then we have no way to say that greater success could not be achieved by some new kind of socialism that is different from the socialist systems that have been tried in the past."*

Mantra to work by: NOBODY IS GOING TO PARTICIPATE IN YOUR DAMN PLANNING COUNCILS!



Economic Complexity Network Map of Canada's Economy (2017) - from Harvard / MIT Atlas of Economic Complexity

Process makes Perfect

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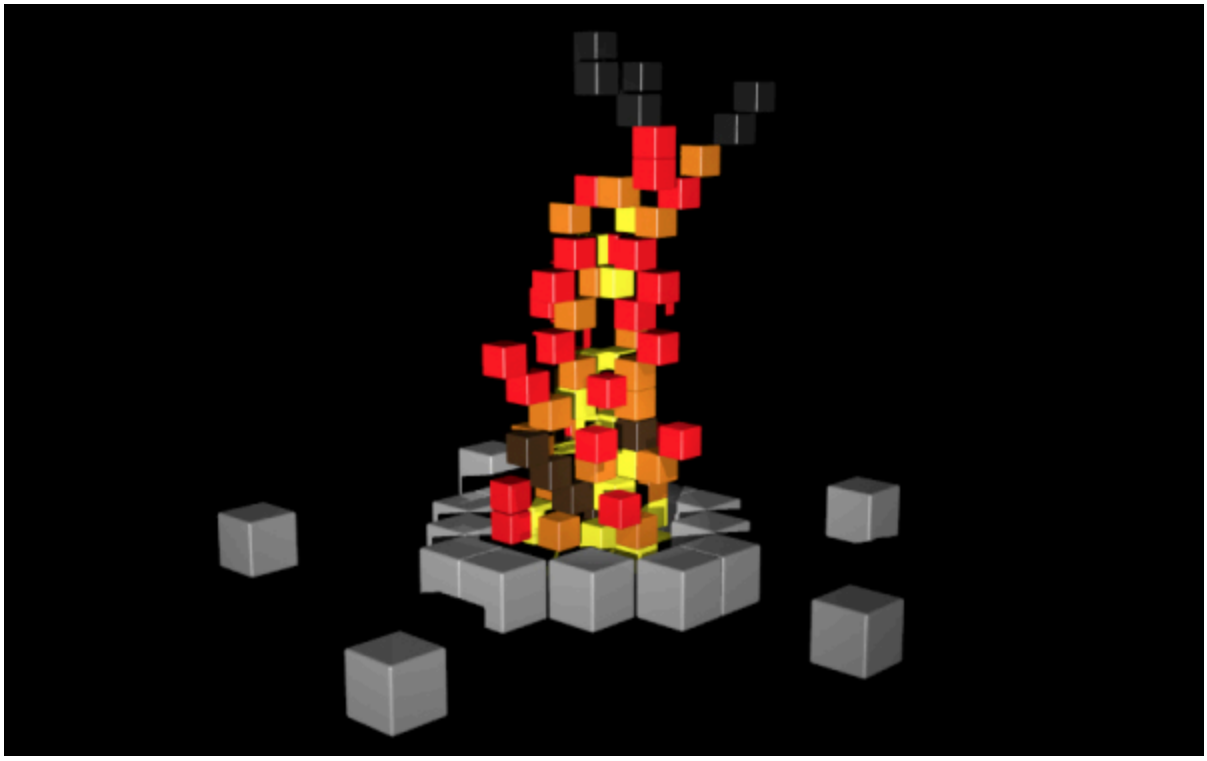
Vive la eCanadienne!



"In the long run, as [journalist] Robert Wright says, there is a direction, an arrow, in human history in which technologies arise that enable "new, richer forms of non-zero-sum interaction" - that is, interactions in which all participants are better off from having interacted."

- Dr. Thomas W. Malone, MIT Centre for Collective Intelligence, in his 2018 book *Superminds*

"New frontiers of the mind are before us, and if they are pioneered with the same vision, boldness, and drive with which we have waged this war we can create a fuller and more fruitful employment and a fuller and more fruitful life."

FRANKLIN D. ROOSEVELT, 1944, inspiration of the Vannevar Bush Report "Science, the Endless Frontier"

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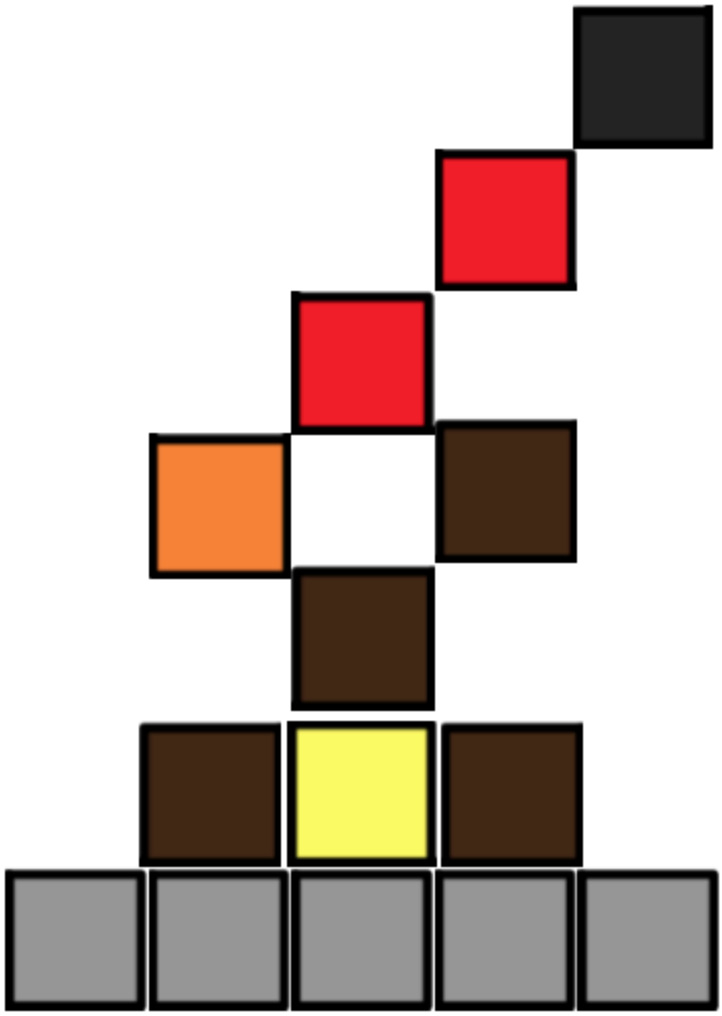
4. Foundational Sources



"To succeed, planning alone is insufficient. One must improvise as well."
— Isaac Asimov, Foundation, 1951

4.1. Existing *Tools & Inspiration* to source for a System of Systems - emphasis on PRACTICE

**denotes if Canadian or has significant Canadian involvement (to Geoff's Knowledge)*

- Organizations
  - *Achahk - "Traditional values, future-proof telecommunications" - "Wholly owned by Métis people based on Métisland"
  - Bettermeans - "Open, democratic project management"
  - *Chaordix - "Community Platform connects your brand with the people who mean the most to you, so you can create, discuss and learn."
  - Climate CoLab - "Work with people from all over the world to create proposals for how to reach global climate change goals."
  - Change.org - "The world's platform for change, 390,003,777 people taking action. Victories every day."
  - Commons Engine - "Designing Commons-Oriented Economies"
  - Countable - "Countable was founded to lower barriers to civic entry and power purpose-driven campaigns, companies, and causes." (wikipedia)
  - Duolingo - "Learn a language for free. Forever."
  - *Futurefit.ai - "FutureFit AI is the 'GPS' for Work & Education Pathways"
  - GovLab - "DEEPENING OUR UNDERSTANDING OF HOW TO GOVERN
  - MORE EFFECTIVELY AND LEGITIMATELY THROUGH TECHNOLOGY"
  - Holochain - "Think Outside the Blocks - scalable distributed computing."
  - JP Morgan Chase Advancing Cities - big data entrepreneurial decision support & investment
  - *MassLBP - Since 2007, MASS has been working to strengthen the relationship between citizens and their governments.
  - *Made In Canada - ecommerce "By Canadians, for Canadians. Spend your money wisely."
  - Open Ideo - "Want to solve problems that matter? You're in the right place."
  - Open Source Ecology - "Open Source Blueprints for Civilization. Build Yourself."
  - *Participatory Budgeting Project - "empowers people to decide together how to spend public money"
  - Salesforce - AI driven Economic Simulations of tax policy
  - *Sensorica - "peer into the future"
  - Shapr - "meet inspiring professionals"
  - Spark Collaboration - "Connect Your Employees One-on-One for Better Collaboration"
  - *Strategyzer - business model canvas, value proposition canvas, and other tools
  - *Syntegrity - cybernetic management consulting to "get [clients] unstuck, unified, and poised for action in days."
  - Wikistrat - "Wikistrat is the world's first crowdsourced consultancy. We operate a global network of over 5,000 subject-matter experts, leveraging our interactive crowdsourcing platform for real-time wargames, scenario exercises, and innovation challenges."

- Projects
    - Atlas of Economic Complexity - “a powerful data visualization tool that allows people to explore global trade flows across markets, track these dynamics over time and discover new growth opportunities for every country.”
    - Basis - “a platform for a socialist economy”
    - *Cosense - “rapid sensemaking framework”
    - Cybersyn - “constructing a distributed decision support system to aid in the management of the national economy - Chile, 1970s”
    - DataUSA - “The most comprehensive visualization of U.S. public data.”
    - Niti Aayog - Indian Government Indicative Planning - Strategy for New India @75
    - Seenapse - “the inspiration engine”
    - ValueFlows - “a vocabulary for the distributed economic networks of the next economy”
    - Obelisk - “an attempt to create an alternative to the market for operating an economy”
    - *LocEcon - “Our goal is to develop a system where intelligent and dedicated - but non-expert - people can work together to analyze and then improve their own local economies.”
    - Frepple.org - “Open Source Advanced Planning and Scheduling (APS)”
    - Metacurrency Project - Developing tools and platforms
    - for open sourcing the next economy.
    - r/democraciv - In Democraciv, we play a single-player game of Sid Meier's Civilization 5 with a simulated, elected government.
    - Metamaps.cc - “a free and open source platform that supports real-time sense-making, distributed collaboration, and the creative intelligence of individuals, organizations and communities.”
- Ideas
    - Augmented Democracy - “exploring the design space of collective decisions”
    - “The use of knowledge in society” - Friedrich Hayek (1945) - “A decentralized economy thus complements the dispersed nature of information spread throughout society.”
    - Quadratic Voting - “Quadratic Voting is a method of collective decision-making in which a participant votes not just for or against an issue, but also expresses how strongly they feel about it.”
    - Markomata - “treating markets as diverse algorithms”
    - Collective Intelligence Design - “how human and machine intelligence can be combined to develop innovative solutions to social challenges.”
    - Doughnut Economics - The Doughnut of social and planetary boundaries is a approach to framing social and planetary boundaries
    - *Sustainable Development Goals - “call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.”
    - Laudato Si - Pope calling all people of the world to take "swift and unified global action” "on care for our common home".
    - Viable Systems Model - “a model of the organizational structure of any autonomous system capable of producing itself.”
    - Heterarchy and Holocracy - flat and blended hierarchies

- Market Design - "Market design is the flip side of that coin: given a set of agents, market design seeks to identify the game rules a market designer might implement that would produce the desired behaviors in the players."
- Prediction Markets - "exchange-traded markets created for the purpose of trading the outcome of events."
- Strategic Plan Meta-Analysis - idea that we can assess the content and impact of a huge number of strategic plans
- Wikimedia Movement - "Free, open-content, wiki-based Internet projects."
- Open Value Network - "a network of open-enterprises that can provide all functions of a corporation in an open-collaboration fashion."
- Open Collaborative Platform -
- P2P - "How shared perma-circular supply chains, post-blockchain distributed ledgers, protocol cooperatives, and three new forms of post-capitalist accounting, could very well save the planet."
- Decision Sciences - "the collection of quantitative techniques used to inform decision-making at the individual and population levels."
- Citizen Science - "the collection and analysis of data relating to the natural world by members of the general public, typically as part of a collaborative project with professional scientists."
- Delphi Method - "The Delphi method is a process used to arrive at a group opinion or decision by surveying a panel of experts."

4.2. A few key entries for a Preliminary Bibliography - emphasis on THEORY

To be hyperlinked

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4.3. About the co-founding author: geoff

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- Geoff is a proud Calgarian (Alberta) living in Toronto (Ontario) with his girlfriend whilst completing his Master of Design in Strategic Foresight and Innovation (SFI) at Ontario College of Art and Design University (OCADu).
- He graduated from the University of Waterloo (UW) in Ontario with a Bachelor of Knowledge Integration in 2015 with minors in Cognitive Science and Philosophy.
- Geoff also attended Alberta College of Art and Design in 2012 (ACAD, now AUArts), where he held his first solo art exhibition - Never Events: The Future of the Past.
- Geoff was valedictorian of the 2010 graduating class of Strathcona-Tweedsmuir School in Okotoks, Alberta where he completed his independent final art project: Expo Calgary 2164.
- Geoff became interested in economics early in university but disliked the way it was taught. This led him to a cognitive economics (behavioural economics) seminar offered at UW.
- That catalyzed a journey of discovery and involvement in the global student movement Rethinking Economics.
- Geoff co-founded Rethinking Economics Waterloo in 2014, and co-organized the first Rethinking Economics conference in Canada in February 2015.
- Concurrently, he wrote his undergraduate thesis, *Exploring Prices as an Information Technology*, with supervisor Dr. Patricia Marino and founded the Canoe Joint Canadian Undergraduate Programs System.
- Geoff put this thinking on hiatus until an essay question in a Human Factors class at SFI and a serendipitous conversation with a classmate reinvigorated his interest in the topic.
- He rapidly developed the nucleus of what was then called the Purple Plenty Project, and developed the idea through conversations, reading, games, and by convening with a Collective Intelligence Reading Group in Toronto that he started with his friends. He hacked together the basis of this document in an inspired sprint of 8 days.
- Geoff looks forward to the next steps of collaboration with this project, and is available to be contacted by emailing gcevamyhill@gmail.com.

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