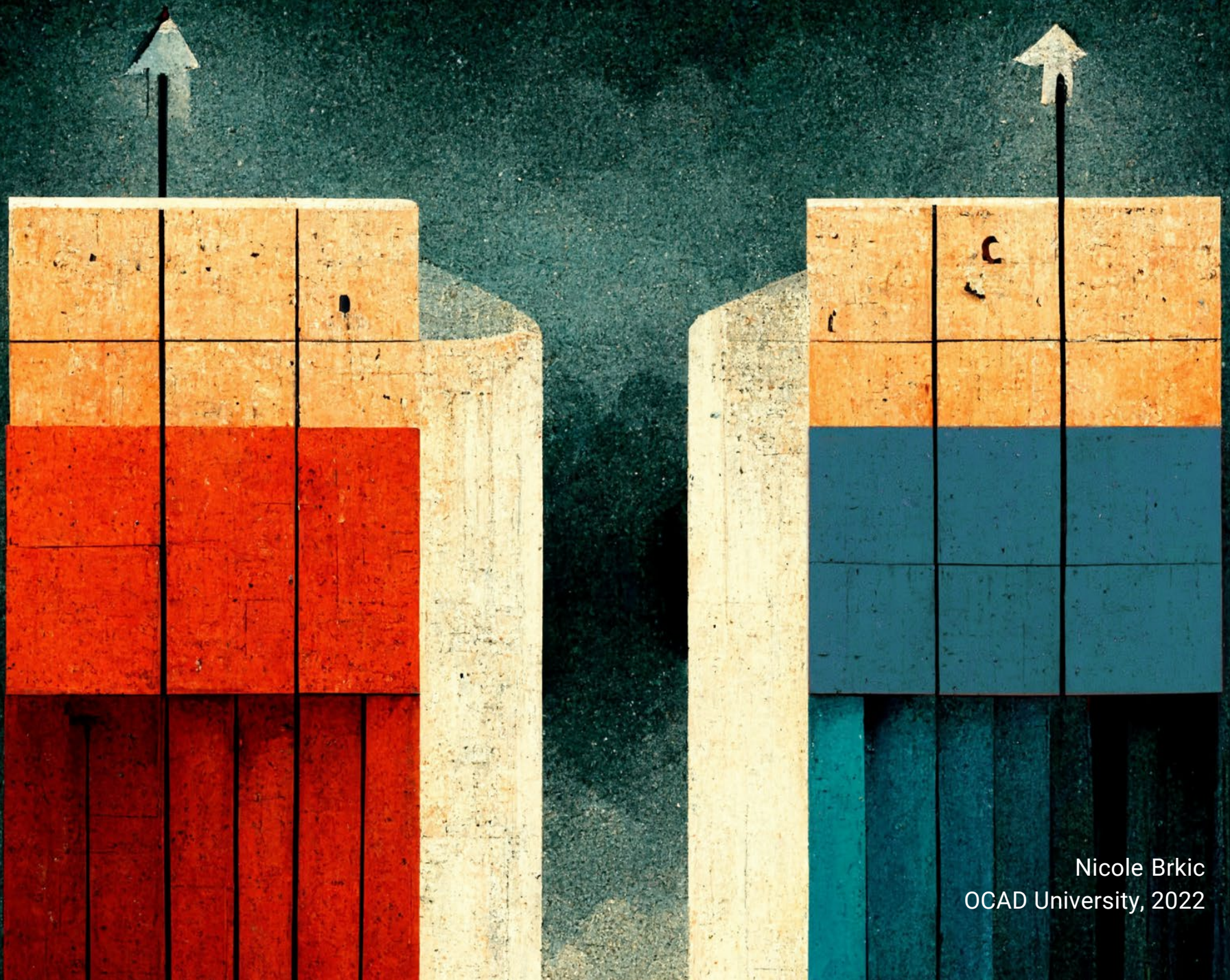


IN THE NAME OF *JUSTICE*

AFFECTIVE
POLARIZATION
AND THE FUTURES
OF SOCIETAL
COORDINATION



Nicole Brkic
OCAD University, 2022

01-CONTEXT

United we stand, divided we fall

Our political affiliations are becoming increasingly relevant representations of our personal identities (Van Bavel & Packer, 2021). On a global scale, studies suggest that political polarization is on the rise in Canada, the United States, and several other countries around the world (Boxell et al., 2021). In Canada, a study conducted in March 2022 surveyed a total of 1,011 Canadians and found that approximately 75% “believe that society has become more polarized” (Djuric, 2022). The two leading divisive issues identified by respondents were the COVID-19 pandemic and the 2021 federal election.

Canadian politics were traditionally dominated by “non-ideological¹ brokerage parties” (Merkley, 2020) until they began polarizing in the 1980s when the Conservative Party started to deviate more towards the right, and the Liberal Party towards the left. That is not to say that Canada hasn’t had its polarizing moments in the past. Canadian political journalist Paul Wells (2019) recounts several peak polarizing moments throughout Canadian history, and attributes today’s perception of “elevated mutual mistrust” as an “application of selective memory”.

Polarization can be measured or conceptualized in a number of ways, and there are valuable insights to be gained about the populations within which it emerges—but research has, to date, been relatively limited in exploring these variations, particularly within Canada (Merkley, 2020). What has been recognized most conclusively within Canada is a rise in affective polarization.

Affective polarization is the degree to which expressions of outgroup hate surpass expressions of ingroup love (Iyengar et al., 2019). An ingroup is a

group of people united by one or more commonalities, which may include shared ideas, opinions, worldviews, interests, or objectives. Inversely, an outgroup consists of people that exist beyond the boundaries of a particular ingroup; those who do not share the commonalities of a particular ingroup. Interestingly, affective polarization can increase in some cases even as ideological divergence (the clustering of citizens on left-right ideological poles) decreases. Affective polarization may gain its own momentum, centered around discrediting, vilifying, and defeating an outgroup, its members, or both.

We could explore the historical context that has led to today’s increasing hostile and polarized state, basing the inquiry on ‘why now?’, but considering this is not a unique circumstance for our society (or any society for that matter), it seemed more pertinent to ask ‘why?’ and ‘how?’. Uncovering the answers to these questions may provide us with a better chance to intervene, mitigate, and prevent any further escalation, particularly as we move forward into an increasingly complex world. Without strong coordinative capacity², navigating evolving technology, values, information, and global connectivity can turn complexity into chaos.

1 *Ideology is a system of ideas and ideals, especially one which forms the basis of economic or political theory and policy; the ideas and manner of thinking characteristic of a group, social class, or individual (Oxford University Press, 2010).*

2 *Coordinative capacity refers to our ability to effectively orient ourselves towards collaborative initiatives in order to make collective decisions about how to move forward.*

Project definition

Research scope

Upon establishing where we are, and the rationale for choosing to bypass an inquiry into why we got here in favour of how we got here, there are a few details to clarify.

First, just as the report is not concerned with the historical context of affective polarization, it is also not concerned with the degree, nature, or validity of Canadian affective polarization. Rather, the focus is on the underlying driving forces behind the emergence and escalation of polarization in any context.

Additionally, while the influence of global politics is relevant to the state of Canadian affective polarization, it could not be comprehensively researched and analysed in the time frame of this project, and as a result, has been largely excluded.

Finally, polarization, partisanship³, or any form of allegiance to a group is not harmful in itself, even when the conflict is political in nature. In fact, there are plenty of benefits of ideological diversity, as we will discover throughout the report. Political parties simplify an otherwise complex system and aid citizens towards forming opinions and making decisions when voting (Mason, 2018). Partisanship also prompts political engagement, and it is desirable that people participate actively as members of a democratic society. What the report seeks to address are the potential risks of unregulated polarization⁴, namely, affective polarization. Unregulated polarization allows hostility to invade the political sphere without interventions in place to prevent or mitigate the effects. Consequently, they continue to worsen. In this circumstance, “parties

become a tool of division rather than organization” (Mason, 2018), and division within a society and singular government prevents the engagement and coordination required for effective democratic leadership and decision-making informed by collective truths. Affective polarization in Canada is the subject of this report and will be referred to as the system-in-focus throughout the report.

Research question

With this context in mind, the research question driving the project is as follows:

How might we coordinate a polarized society despite an increasingly complex environment?

coordinate: effectively orient ourselves towards collaborative initiatives in order to make collective decisions on how to move forward.

polarized society: referring specifically to affective polarization in the context of Canadian society and its liberal / conservative ideologies.

increasingly complex environment: a local and global context of conflicting interests, evolving technology, values, information, and global connectivity.

Research methodology

For a detailed description of the research methods and methodology followed in this project, see Appendix 1.

³ *Partisans are members and advocates of a specific political party or cause.*

⁴ *Going forward in the report, it is to be understood that any use of the word ‘polarization’, unless otherwise specified, refers to this interpretation: affective polarization and its negative outcomes.*

Project structure

The research question was investigated by identifying, exploring, and analysing three dimensions that inform decision-making:

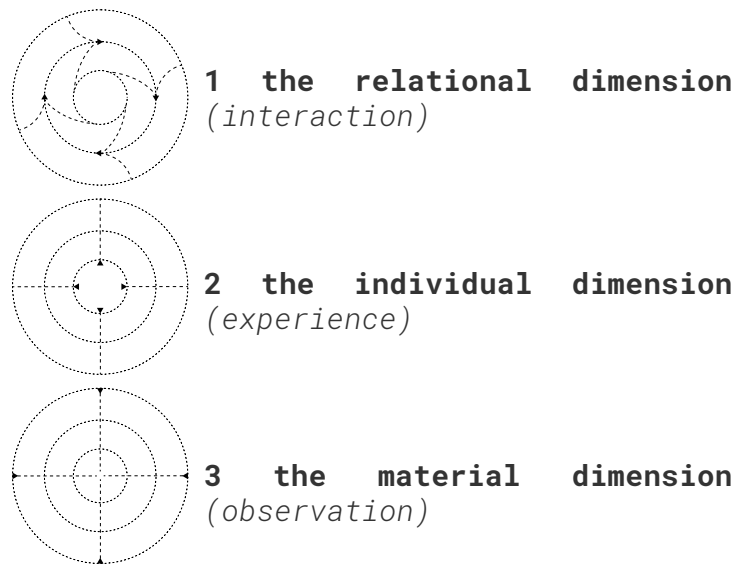


Figure 1 represents these tiered dimensions that became the structure of the report and facilitated the project overall.

It is represented as three concentric and layered circles which are not distinct or independent of one another, rather they represent a multi-layered entity of fluid, interdependent layers. A wedge of the circle is isolated for notation purposes.

For narrative consistency, the dimensions are numbered in the order that they appear in the next chapter (02—System-in-focus). Each dimension has been interpreted with its own directional force, marked by directional lines and arrows. See Appendix 2 for detailed descriptions of each dimension and their visual representation.

Project guide

From this project structure, emerged a project guide. This guide, adapted from Simon Sinek’s Golden Circle framework (2009), is mapped opposite from the project structure on the isolated wedge. It captured the essence of the project, clarifying its purpose by identifying who we are—identity, what we do—knowledge, how we do it—coordination, and why we do it—decision-making.

Identity is formed via the individual dimension (our experience) and the relational dimension (our interaction). Knowledge emerges from information sourced from the material dimension (our observation) crossed with the interactions that occur in the relational dimension. Finally, coordination is a compound of the relational and individual dimensions. The emergent property of these three dimensions is the why: decision-making. This core purpose validates the significance of this research, and consequently the research question: How might we coordinate a polarized society despite an increasingly complex environment? Addressing this question is pertinent to the quality of our decision-making, which cannot be successful without coordination, shared knowledge, and an understanding of our identities and their influence on our perceptions.

This project guide not only represents the concept of decision-making, it also informed decisions made throughout the project, including segmenting insights, evaluation criteria development, and the cumulative outcome of the project—a theoretical guide targeted at anti-polarization (prevention) and depolarization (mitigation) to support coordination and well-informed decision-making.

CONTEXT

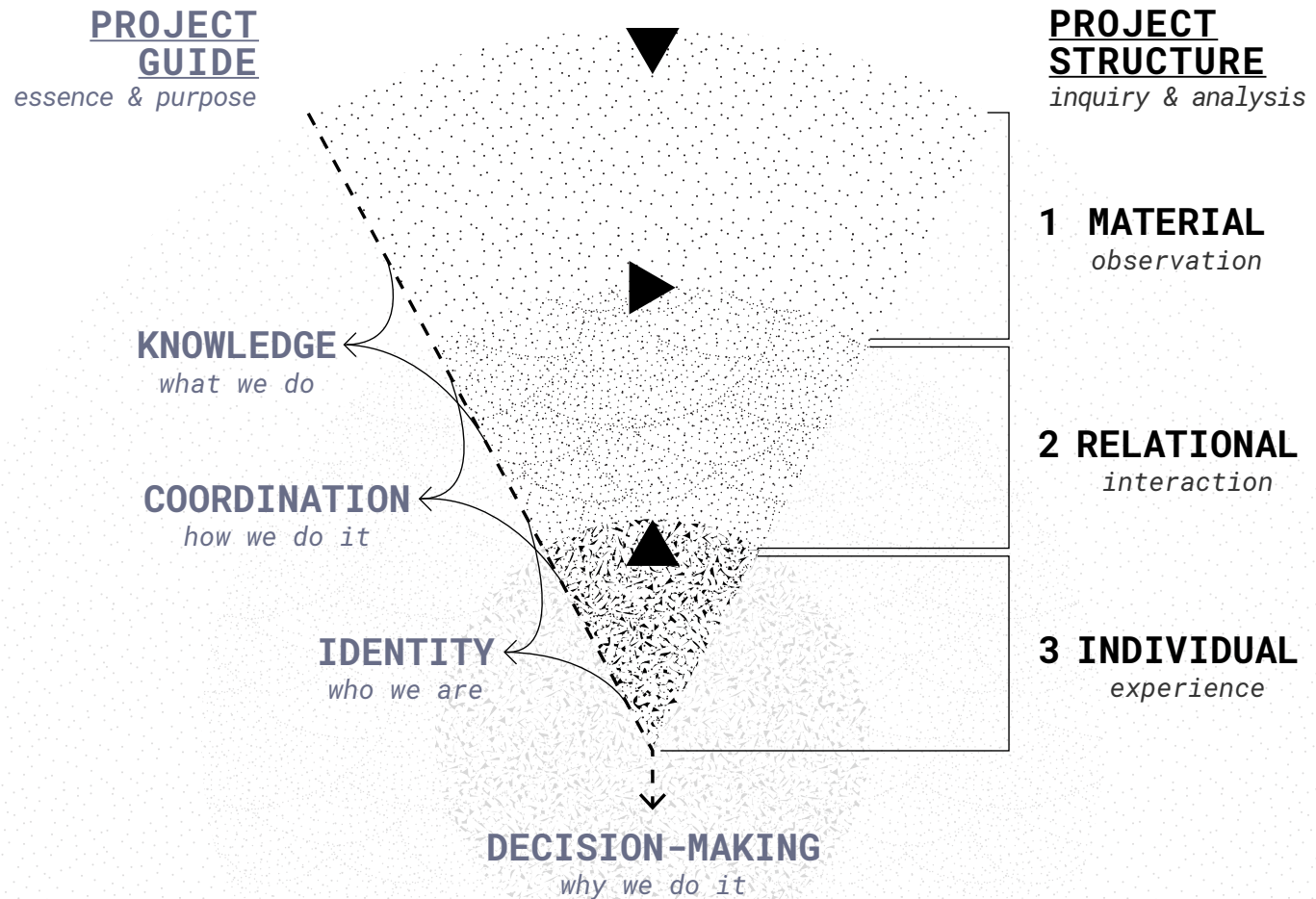


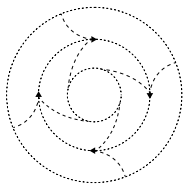
Figure 1 | Project structure & guide

02–SYSTEM–IN–FOCUS

Dimensions of decision-making

This chapter is an exploration of why and how affective polarization operates to identify the key factors shaping the state of the current system (the system-in-focus). It seeks to uncover the conditions, circumstances, behaviours, and traits which create and/or contribute to affective polarization; how perspectives are formed, how they escalate, and why they are retained and defended. The contents are a synthesis of the research that has been compiled and analyzed using systems design tools. The narrative is aligned with the three dimensions of the project structure and is thus segmented into three subsections: [1] Forward-bound: the relational dimension, [2] Inside-out: the individual dimension, and [3] Outside-in: the material dimension. For the purpose of this report, a brief overview of the research findings are presented, however, a thorough analysis of all three sections are found in Appendix 3.

[1] Forward-bound: the relational dimension



This section is centered around the relational systems of affective polarization—the system-in-focus. Key stakeholders pertinent to decision-making and the emergence and escalation of affective polarization are investigated, as well as their positions of power, their needs and motivations, the manner in which they interact with one another, and the mediums through which affective polarization transpires and escalates.

The identified key stakeholders include *media* (news sources and social media), *citizens* (both non-partisan and partisan), and *government* (both non-elected and elected). Using a series of tools to analyse the research collected, three key insights are extracted:

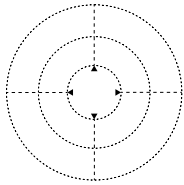
Media is society's control centre. Media is the route through which much of societal discourse takes place.

It is responsible for facilitating the dissemination of information to the mass public. It also has significant leverage over other stakeholders, and due to the profit-seeking nature of their organizations, media has little incentive at this time to mitigate or eliminate the use and provocation of polarizing language and ideas. Political regulation plays an important role here, but it cannot lean into censorship to do so, and must instead work to preserve our democracy.

Language is power. Language is a catalyst that can unite or divide us. The ability to critically and comprehensively assess, interpret, and transmit information gives us personal agency, and is in that way an exertion of individual power. Gaining personal agency requires a full understanding and awareness of ourselves, our surroundings, and how the two interact. We must know how to name our internal and external experiences with accuracy, and how to communicate them. Ultimately, citizens must work to build personal agency through media literacy, emotional literacy, curiosity, and critical thinking.

Social media: the antisocial social system. Today, we have fewer opportunities for face-to-face communication and interaction, particularly with people who have dissimilar beliefs, opinions, and worldviews. Antisocial behaviour is enabled in online environments due to our perception that we are anonymous, and the built-in design and function of platforms that form antisocial environments. Curators and users of the internet must build awareness of these conditions and work to insert principles of positive social behaviour into the design of our online environments.

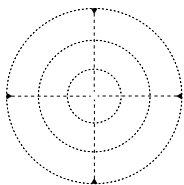
[2] Inside-out: the individual dimension



This section is focused on understanding the human factors that provoke affective polarization, in particular, how our social identities can fulfill our biological need for belonging on one hand, and can lead

to a contest of moral superiority and hostility between social groups on the other. Ultimately, the negative outcomes may be mitigated by managing our discomfort associated with uncertainty, increasing our tolerance for dissent, and pursuing connection, rather than conformity.

In its most simplified explanation, this research revealed that our basic human need to belong, via our groups, escalates into our sense of identity, then our beliefs, and finally our worldviews which become entwined with our sense of virtue. Each human forms their worldview in this manner, and by understanding how we come to what we believe is good, bad, right, and wrong, we may mitigate some of the hostility that two dissenting people or groups feel towards one another. We may also mitigate the hostility by managing our discomfort associated with uncertainty, increasing our tolerance for dissent, and pursuing connection with others, rather than settling for conformity.



[2] Outside-in: the material dimension

This section identifies one of our defining human qualities: the ability to coordinate and generate knowledge.

It explores how we observe and interpret the world through layers of cognitive filters and fallacious reasoning—our human lens—and how it inhibits our ability to perceive the world's objective nature. Societal coordination and well-informed decision-making is supported by access to collective, accurate, and

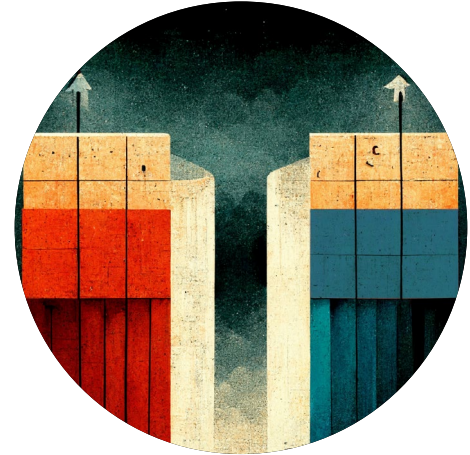
shared knowledge in critical situations. Being human, we cannot eliminate our cognitive filters entirely, but we can subscribe to a shared set of evidence-based principles to facilitate a more impartial system.

This research and its analysis revealed that we are subject to experiencing the world through a human lens. This lens includes the layers of cognitive filters and fallacious reasoning part of the human experience through which we observe and interpret the world, which inhibit our ability to perceive its objective nature. These human conditions are not inherently negative, in fact, they benefit us by filtering and enabling us to process the mass amount of information and stimuli we are faced with at any given moment. However, it can inhibit one of our defining human qualities: the ability to coordinate, generate shared knowledge, and make well-informed decisions. Societal coordination and well-informed decision-making is supported by access to collective, accurate, and shared knowledge in critical situations. Being human, we cannot eliminate our cognitive filters entirely, but we can subscribe to a shared set of reality-based practices which insist that we embrace our fallibility, subject ourselves to criticism, tolerate the reprehensible, and depend on strangers globally to produce new information and knowledge. In other words, we must both communicate and receive dissent, nurture curiosity, accept uncertainty, embrace failure and vulnerability, tolerate the expressions of even the most 'non-virtuous' members of society, and trust others so long as they adhere to the principles of the reality-based community. The key principles assert pluralism and diversity alongside an acceptance of our failibility, as well as filtration of non-reproducible ideas.

Current state of the system

2022–Deadlock

The secondary research revealed a set of qualities that could be used to summarize the current state of our current society (named deadlock for the purpose of this research) (Table 1). Twelve qualities were selected with the guidance of the STEEPV framework (MaRS, n.d.), to most comprehensively summarize the current state. The STEEPV framework includes a consideration of the following factors: social, technological, economic, ecological, political, and values.



SYSTEM QUALITIES	CURRENT STATE–2022
Decision-making approach	Deadlock
System Title	In the Name of Justice
Myths & metaphors	<i>I think, therefore I am... right (and good)</i>
Governance structure	Decentralized liberal minority
Governance strategy	Situation-apathetic: no strategy in place as of yet
Governance	Democratic
Social constructs	<i>You're either one (liberal) or the other (conservative)</i>
Social interaction	Mixed, tendency towards prioritizing ingroup association
Social services	Free essential services, i.e., public education until post-secondary, some health care
Knowledge creation	"Liberal science" (Rauch, 2021)
Technological integration	Increasingly all-encompassing
Environmental state	Declining
Economic priority	Continual growth
Culture & values	<i>You're either with us or against us</i>

Table 1 | System summary of the current state, 'deadlock'

03–ENVISIONING POTENTIAL FUTURES

Alternative future outcomes

This chapter envisions potential alternative future outcomes, constructed from the context of our current state as well as the emerging potential indicators of change. Four scenarios set in the year 2042 are presented, each accompanied by a description, system summary, causal layered analysis, and an evaluation against several factors that aim to determine the coordinative capacity of each alternative state. The chapter concludes with an analysis of their respective evaluation scores.

Foresight practice

The decisions we make today will impact the trajectory of our futures. Foresight enables us to envision potential futures, and when we do so, we can determine elements we desire and elements we wish to avoid. In this chapter, futures thinking approaches and foresight practices and tools are implemented with the objective of assessing four alternative outcomes based on four approaches or decisions we may make towards managing (or not managing) polarization going forward. This process can support better informed decisions, with processes and institutions that are more resilient, or antifragile¹ even.

The alternative outcomes are set in a 20-year timeline—2042—to allow at minimum a generation’s length of time for a cultural shift, but not too far into the future that the state of the scenarios might be radically unrecognizable from today’s context.

Potential indicators of change: emerging trends

The development of reasoned futures outcomes in this situation was supported by a horizon scan—a research process that explores emerging indicators of potential change.

Gathering weak signals² formed larger trends, of which the most pertinent could be identified. Referring back to the project guide, the trends selected were those with the potential to significantly impact what we do (knowledge) and how we do it (coordination) as they relate to collective decision-making. Specifically, these trends are considered to impact our perception of reality and the ways we come to understand the world, as well as a shift in power dynamics or governance structure. A total of five potential indicators of change are described in Appendix 3, each of which includes a description, set of implications, extrapolations, related trends, and counter-trends. Implications are meant to present shorter-term consequences that might be prompted by a particular trend, while extrapolations are longer-term predictions or estimations of potential outcomes of a trend under the assumption that it will progress further.

These five trends and their brief summaries are listed on the following page.

-
- 1 *Antifragility is a concept and term coined by Nassim Nicholas Taleb referring to a property or quality of a system that allows it to thrive in the face of “volatility, randomness, disorder, and stressors” (2012). Taleb rejects commonly used opposites for ‘fragility’ such as resilience or sturdiness, because they imply resistance without change. Antifragility takes on stressors and emerges stronger as a result.*
 - 2 *Weak signals are individual pieces of data that could have greater implications for change should they be found in multiple sources to form a cluster of signals (a trend).*

Five emerging trends



1. AI-generated images

Artificial intelligence that translates user prompts into increasingly realistic and precise visual depictions of those prompts.



2. Government-mandated internet shutdowns

Enforced regulation of the internet by restricting access to some or all of it by various means.



3. Two-Eyed Seeing

The integration of Indigenous knowledge and ways of knowing with western liberal science approaches.



4. Ministries of Futures

Government agencies focused on future-oriented policy development and initiatives.



5. Democratic backsliding

The loss of democratic characteristics in a once-democratic society.

Decision-making approaches and positions

With an adaptation of Kahane’s Four Ways to Deal with Problematic Situations (2017) and the causal layered analysis tool, alternative futures outcomes were produced to explore what might happen if we elect to deal with affective polarization in four distinct ways.

Kahane’s framework proposes that the first way we can deal with a problematic situation is to *exit*. This instinct arises from a sense that we cannot change the situation, nor can we live with it. Usually we quit or withdraw from the situation because the other force is more powerful than us. While Kahane describes exiting as a unilateral decision, in the scenario presented, both political partisan groups decide that exiting is the best option due to an equal level of power on either side.

The second way is to *adapt*. As with exiting, when we adapt we feel that we cannot change the situation, but unlike exiting, we find a way to deal with it. Adapting can feel at times like a compromise, sacrifice, or as though we are settling. Adapting is also a unilateral decision in which one force determines the outcome of a situation, thus, it is also a situation in which our decision is based on another force being more powerful than us. In the corresponding scenario, radical liberal ideologies seek to push society forward at all costs, and all others are coerced into adapting to the progressive trajectory.

The third way is to *force*. A forceful approach is taken when we feel we know what is best for ourselves and determine it is the best for others as well. This is again, a unilateral process by which we feel compelled to change the situation, and have the power to do so.. We are for that reason only capable of employing force when we are the more powerful actor in the situation. The scenario that emerges is one where radical conservative ideology prevails in protecting, preserving, and reinstating the way things used to be.

		DECISION-MAKING APPROACH	
		UNILATERAL	MULTILATERAL
DECISION-MAKING POSITION	AVOIDANT	Submissive-Exit	Mutual Exit <i>(Truman)</i>
	COMBATIVE	Force <i>(Success to the Successful)</i>	Deadlock <i>(In the Name of Justice)</i>
	COOPERATIVE	Adapt <i>(Nightingale)</i>	Collaborate <i>(Symphony)</i>

Table 2 | Decision-making approaches and position

The fourth and final way is to *collaborate*. Collaboration occurs when we are not satisfied with the current situation, and feel as though the only way to resolve it is alongside others, even if we have little or no desire to do so. We may choose to collaborate when both forces are equally powerful, and exiting is not an option. Collaborating is a multilateral approach, and in the scenario generated from it is one in which both ideologies acknowledge their dissatisfaction with the current state of the world, and despite their distrust of one another, decide the only option is to seek solutions collaboratively or face even greater undesirable consequences.

While Kahane’s framework is a valuable point of origin, there are a few inconsistencies and a lack of nuance that this research called for. First, it does not account for the outcomes of multiple parties dealing with problematic situations in their own ways, and the result of those two approaches interacting. Each nuanced approach may produce outcomes specific to its context, and those outcomes should be assessed according to the context. For example, a low innovation score in one outcome may have different implications than in another outcome.

The realization of a need for more specificity in this framework came up in a couple of scenarios. First, in our current context, *In the Name of Justice*, we are experiencing two parties attempting to apply force. This results in a deadlock situation, where in fact, no true decision can be made. Another instance emerged with the realization that the exit approach may be applied unilaterally or multilaterally, as is the case in *Truman*. A mutual withdrawal from a situation may produce distinct outcomes from a one-sided exit, and it was presumed in this research context that a unilateral exit would produce outcomes too similar to force or adapt, where one ideology may prevail as a result of another's' surrender or defeat. As a result, the submissive exit scenario as shown in Table 2 was not explored. Due to this, the mutual exit scenario will continue to be referred to as simply exit going forward for consistency and conciseness.

These specific situations highlighted the need for another dimension in the framework, which was defined as decision-making position. This dimension exists in contrast to Kahane's existing conceptualization of unilateral or multilateral decision-making approaches. Decision-making position refers to the attitude in which one engages or disengages in conflict, and has been distinguished by three variables: avoidant, combative, or cooperative. An avoidant approach involves the resistance of interaction with another, a combative approach involves an eagerness or readiness to apply force onto another, and a cooperative approach involves a willingness to engage with another.

This modification has created six potential outcomes, as opposed to four. Those captured by the alternative outcomes in this research are bolded in their respective colour schemes, presented in Table 2.

Alternative futures of 2042

In the pages that follow, four alternate systems based on Kahane's framework (exit, adapt, force, collaborate) and their respective titles and visualizations are presented. Each alternative future includes visual representations, descriptions, and identifies the mature trends³ that contributed to the development of these alternative futures. More details including system scores, system summaries, and a causal layered analysis of each alternative outcome can be found in Appendix 5.

3 *Mature trends are those that are pervasive in the system. These are trends that were once known as emerging potential indicators of change that continued to progress and heavily impact the state of the system they are found in.*

2042: Truman

Approach | **Exit, multilateral**

Position | **Avoidant**



When neither partisan group desired to accept the situation, both simply opted out and withdrew. An entire nation, from the people to the institutions, have been coaxed over two decades into a collective polarized trance. Succumbing to human instincts, no force has yet emerged to counteract or mitigate this trajectory, only those

which have facilitated deeper division, distrust, and hostility. Elected government is static due to the inability for parties to reach consensus on any topic, and any motions take an extensive amount of time to be reviewed, and even longer to be passed. Regions are colloquially and culturally distinguished by their political affiliation after a period of mass intranational migration. The two groups exist in their own echo chambers, physically and virtually disconnected from each other, and experience distinct versions of reality where each side only has access to information about the world filtered according to their respective values (and group leader interests). They never encounter alternative ideas to their political ideologies, and rarely encounter members from the other group. It has proved to be safer that way for all.

Mature trends:

AI-generated images

Government-mandated internet shutdowns

Democratic backsliding

For both groups, it is equally clear as to who and what they are, and who and what they are not; what they represent, and what they do not represent; what they will tolerate, and what they will not tolerate; what their objectives and vision are, and what the unthinkable would be. Explicit definitions of acceptable thought, speech, and conduct on either side leaves little flexibility and autonomy for people. For most, the fear of saying or doing the wrong thing among their respective members is suppressed and has become normalized.

This society has reached another inflection point. As strong as the trust within groups was in the early days of the divide, recently there has been an undertone of growing distrust, where groups within each region are beginning to emerge and slightly deviate in their values, opinions, and beliefs about how to move forward as a collective. There will always have to be a them in order for us to exist.

The visual depiction of the alternative state, exit, was created using the AI image generator Midjourney, by entering the following text prompt: "360 degree painted walls of outdoor scenery".

2042: *Nightingale*

Approach | **Adapt, unilateral**

Position | **Cooperative**

Mature trends:

Government-mandated internet shutdowns

Democratic backsliding



Society, having had to adapt to governance that adheres to progressivism by any means, has brought about positive change for the betterment of all. Citizens are universally provided for, ever since the implementation of a guaranteed basic income. Most people can own a home on a leased lot, if they so choose, essential services are publicly

funded, and goods and services are reasonably affordable in comparison with the average wage. People are almost always physically safe, and rarely face psychological danger from other individuals. Automation has covered some of the laborious jobs that once existed, allowing people more freedom to explore, discover, and pursue their genuine life interests.

And yet, a societal undertone of general unsettlement persists. Mental health is suffering, but the underlying causes are not explored by the majority, let alone addressed. It would undermine the social progress that has been achieved, to question external reasons, and consequently, many people blame themselves for these feelings. Although there are some that have begun to question a life that most of society deems people should simply feel grateful for.

Knowing who one may trust is key to social survival. Getting reported online or in real life for saying the wrong thing is the worst thing to happen to a person—a likely path to social ostracism, unemployment, and lack of access to public and private services. For everyone's best interest, ensuring no harm is intentionally or unintentionally inflicted, all publications, media, research initiatives, social media posts, must be approved prior to their initiation and release. The released content must align with the pre-approved proposal or face a penalty of public defamation up to criminal charges. Opinions, beliefs, and ideas can never be completely eliminated, but expressions of socially unacceptable content can only be done in private, with those you trust most. The laws function because it's nearly impossible to find out whose opinions deviate from the 'norm'. Many are not willing to risk being exposed, and so communication remains surface level, in the 'safe zone'.

The visual depiction of the alternative state, adapt, was created using the AI image generator Midjourney, by entering the following text prompt: "beautiful garden inside of a locked cage".

2042: *Success to the Successful*

Approach | Force, unilateral

Position | Combative



Outraged with the direction that society was heading in, some took it upon themselves to prevent any further damage, and revert things back to how they should be—the way they've always been done. Leaders forced a retrogressive vision on society to rebuild one based on the premise of freedom and respect for tradition. One's personal

rights are protected—so long as social norms and expectations are adhered to.

These expectations are distributed across all types of media, which is highly regulated, and with the help of technology, no one can tell the difference whether the information in front of them is real or fabricated—online or in person. Many are too exhausted and disoriented by the inconsistent messaging to decipher a concrete grasp on what's happening in the world, and have either surrendered into accepting the information presented, or have become entirely disengaged.

With a driving principle of freedom comes a full embrace of the free market. Corporations are minimally regulated, and their power far supersedes the government, particularly in the context of the

internet and social media. They have the authority but no incentive to enforce any censorship policies, as their regulatory decisions pursue profits, not public duty. And profits are made by adhering to free expression. In any case, censorship roles are fulfilled by the user base where either trolling or extreme, unregulated hostility restrain people from posting socially unacceptable content.

Technological innovation is progressing at a rate faster than ever before, nearly in parallel with the rate of the rising wealth gap. Inequality is at a peak, since the only possible way to accumulate wealth is to have been born into it.

Mature trends:

AI-generated images

Government-mandated internet shutdowns

Democratic backsliding

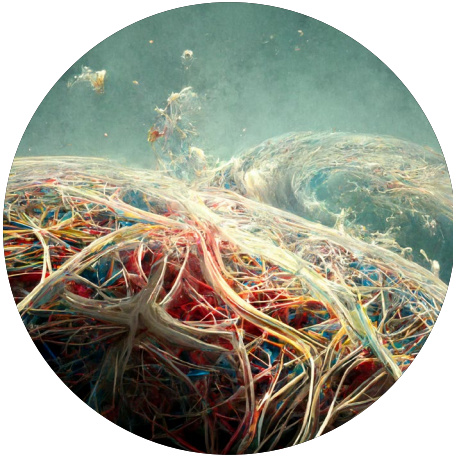
The visual depiction of the alternative state, force, was created using the AI image generator Midjourney, by entering the following text prompt: "success to the successful, late capitalism".

2042: *Symphony*

Approach | Collaborate, multilateral

Position | Cooperative

Mature trends:
Two-Eyed Seeing
Ministries of futures



Upon the realization that a divided society is unproductive at best, and subject to failure at worst, political leaders and political ideological representatives decided that it took two sides to create this problem, and it would take two sides to resolve it.

taxes and more forms of taxation. But for now, the benefits seem to outweigh the costs. The mainstream culture of plurality and curiosity that has evolved appears to be leading this society into a positive direction, one that is more prepared than ever to face the uncertainties and inevitable challenges that the futures hold.

After two decades, society has reached a point where people are comfortable and welcoming of uncertainty. There is in fact an excitement and sense of agency and empowerment that accompanies it. Personal agency extends as well to general life choices, in which all may express and live by their values. Having rid society of shame tactics has been liberating for everyone.

In the face of conflicts, challenges, or potential dangers, many are willing to take action, in whatever form it comes, and with whomever it takes to engage in problem-solving. With more people involved in decision-making, comes more opportunity for dissent, but also stronger, more resilient, and even antifragile solutions.

Things are by no means perfect. For one, collaborative decision-making generally consumes a lot of time and resources. This has resulted in political reform, higher

The visual depiction of the alternative state, force, was created using the AI image generator Midjourney, by entering the following text prompt: "a complex system, massive, beautiful, flexible, collaboration".

Alternative system observations

Outcome analysis summary

The current system (deadlock) and the four alternate system outcomes (exit, adapt, force, collaborate) are presented in Table 3 in a synthesized format of their system structures. Their evaluation is provided at the bottom of the table with a comparison to the model score; the total deviation is provided next to the scores in grey. The farther a sum is from zero, the further it deviates from desired conditions that would indicate higher levels of coordinative capacity⁴. For greater context surrounding these desired conditions and the definition of coordinative capacity, refer to Appendix 4.

The insights that follow are a summary of key findings that emerged from the comparative analysis of the six evaluation criteria. General findings and key insights are expanded on in Appendix 6.

Key insights from comparative analysis

Dissent tolerance and ambiguity tolerance tended to be associated with one another. Both factors were found to be related to levels of flexibility and willingness to be curious, as well as general attitudes towards variety and diversity of ideas.

No scenario resulted in low political regulation. This may suggest that with increasing societal complexity, comes a greater tendency to increase regulation across corporations and government, rather than ease restrictions. The current state and alternative outcomes highlight the precarious nature of governance and how future events may further disrupt our societal functioning.

Trust and political regulation tended to be associated with one another. High political regulation tended to

be associated with high trust, while moderate political regulation tended to be associated with moderate levels of trust.

Pluralism is a rare but powerful force. The tendency to harden and become desensitized, dissociated, or entirely segregated from alternative perspectives was a common outcome across scenarios. This may suggest that pluralistic beliefs or practices tend to be a less common human tendency, yet the impact of pluralistic beliefs and practices tended to generate a more desirable system outcome as a whole.

Note that these insights could be further tested for their validity in the context of a practical research application in a specific situation.

⁴ *Coordinative capacity refers to our ability to effectively orient ourselves towards collaborative initiatives in order to make collective decisions about how to move forward.*

SYSTEM QUALITIES	CURRENT STATE	ALTERNATIVE STATES			
Approach	Deadlock	Exit	Adapt	Force	Collaborate
System Title	In the Name of Justice	Truman	Nightingale	Success to the Successful	Symphony
Myths & metaphors	<i>I think, therefore I am... right (and good)</i>	<i>Out of sight, out of mind</i>	<i>When in Rome...</i>	<i>Every man for himself</i>	<i>There's always room for improvement</i>
Governance strategy	Situation-apathetic: no strategy in place as of yet	Situation-avoidant: busy managing symptoms, not addressing cause	Unilateral: onwards with liberal ideology only	Unilateral: onwards with conservative ideology only	Multilateral: onwards with collaboration and pluralism
Governance	Democratic	Weak Democratic	Autocratic	Autocratic	Open democratic
Social constructs	<i>You're either one (liberal) or the other (conservative)</i>	<i>What you don't know can't hurt you</i>	<i>Zero tolerance for hate</i>	<i>Respect for tradition</i>	<i>The more, the merrier</i>
Social interaction	Mixed, tendency towards prioritizing ingroup association	Ingroup association only	Conformity via weaponized shame	Elite vs non-elite association only	Mixed, connection exists by means of diverse shared experiences
Social services	Free essential services, i.e., public education until post-secondary, some health care	Inconsistent allotment; services are struggling	Free essential services, i.e., all levels of education, holistic health care, & basic income	Privatized services; prices align with quality	Free essential services (definition of 'essential' is co-decided and regularly assessed)
Knowledge creation	"Liberal science" (Rauch, 2021)	Uncoordinated, politically-motivated	Coordinated, Politically-motivated	Coordinated, Politically-motivated	Integrative science
Technological integration	Increasingly all-encompassing	Extensive for the public; elevated for regulatory purposes	Limited for the public; elevated for regulatory purposes	Extensive for consumption and profit; elevated for regulatory purposes	Life-centered, tech-enabled
Environmental state	Declining	Critical	Recovering	Critical	Recovering
Economic priority	Continual growth	Survive	Local growth prioritized	Continual growth prioritized	Local supports; "inclusive and respectful global integration"
Culture & values	<i>You're either with us or against us</i>	<i>Conflict is perceived to be a major threat; "Ignorance is bliss"</i>	<i>Hive mind policing; "if you see something, say something"</i>	<i>Protection of freedom; pride in "family values"</i>	<i>"Find comfort in the discomfort"</i>
EVALUATION CRITERIA					
Dissent tolerance	3	2	1	2	5
Ambiguity tolerance	3	2	1	1	4
Equity	2	3	5	1	4
Trust	3	4	4	2	3
Innovation	4	2	2	4	4
Political regulation	3	4	5	3	3
TOTAL DEVIATION	10	13	14	15	5

Table 3 | Comparative system summary of current and alternative states

04—MOVING FORWARD

Building coordinative capacity

This chapter presents the overall research outcome: a set of core values from which guiding principles oriented towards mitigating and/or preventing affective polarization were determined. These principles are derived from the human experience and are intended to underpin any strategic initiatives that individuals may desire to engage in.

The four C's for enabling coordinative capacity

Following the synthesis of current and alternative system assessments, four core values are uncovered and proposed as a potential foundation for anti-polarization or depolarization initiatives. These initiatives aim to improve societal coordination and our societal resource of knowledge so that we may make well-informed collective decisions on how to move forward together during times of conflict and uncertainty.

The research thus far has been predominantly informed

by the human factors that contribute to polarization. Our systems, processes, and institutions are established and shaped by humans and our interactions; these core values intend to support our navigation of this shared human experience toward more meaningful connection and coordination that strengthens the environments we operate within.

The values proposed are cumulative in that each one put forward depends on adherence to and the active practice of the value prior to it. The Four C's include **curiosity, courage, connection, and collaboration**. Each value is connected to and corresponds with a realm of the project guide. Nurturing curiosity is associated with knowledge, our individual and collective pursuit. Pursuing deeper levels of understanding may enable more opportunities for connection, and those connections may dictate our attitudes towards engaging and coordinating with others. A mutual dependency exists between courage and connection; whereby one cannot effectively exist without the other.

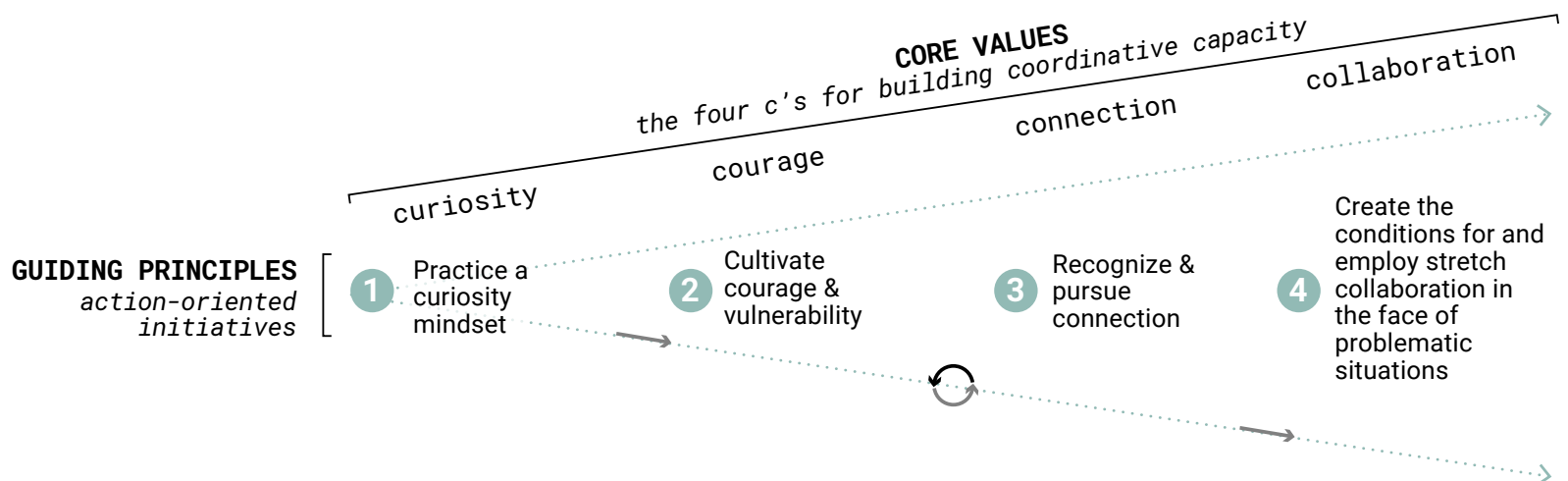


Figure 2 | Guiding principles for building societal coordinative capacity

Finally, the cumulative value is collaboration: more specifically, *stretch collaboration*, a more effective approach to working with others that challenges the conventional forms often employed. See Appendix 7 for detailed descriptions and the research supporting each of the four core values.

Principles for building coordinative capacity

Figure 2 visualizes a framework for building coordinative capacity. Four guiding principles are presented as action-oriented representations of the Four C's to which individuals may commit themselves. As with the core values, the principles have cumulative outcomes and are meant to be implemented as such; curiosity feeds into courage, courage and connection have a mutually dependent relationship, and connection feeds into collaboration. The principles are as follows:

Principle 1. Practice and apply a curiosity mindset

Principle 2. Cultivate courage and vulnerability

Principle 3. Recognize and pursue connection

Principle 4. Create the conditions for and employ stretch collaboration in the face of problematic situations

See Appendix 8 for detailed descriptions and the research supporting each of the four guiding principles.

05–CONCLUSIONS

Research overview

The purpose of this research was to explore how we might make more meaningful connections in our lives and become curiosity-led collaborators. The culmination of this research produced a set of core values and guiding principles by which to conduct ourselves. In order to pursue both an ideologically diverse, yet civil society, we must learn to be curious towards ourselves and in our interactions with others, to be courageous when we are called to be, to pursue true sources of connection, and to stretch into plurality.

The research question sought to address how we might coordinate a polarized society despite an increasingly complex environment. This question was explored in the context of three dimensions – the relational (our interactions), the individual (our experience), and the material (our observations). These dimensions formed the structure of the project and were an underlying thread and guide throughout the project.

The inquiry and analysis identified the key stakeholders involved in the system in focus, the conditions, circumstances, behaviours, and traits which create and/or contribute to affective polarization, as well as how perspectives are formed, how they escalate, and why they are retained and defended. An analysis revealed that our group identities are embedded into our sense of self, and their corresponding beliefs in our morality. When those beliefs are questioned, it elicits high levels of inner conflict which emanates outwards into our interactions with dissenters.

Following an exploration of the current state is the exploration of alternative futures that might await us based on our current state today and the emerging potential indicators of change that might shape the trajectory. Four alternative futures outcomes are envisioned according to four distinct ways we may elect to deal with the problem we face: affective polarization. The current state and alternative states are individually

and comparatively assessed with the evaluation criteria for coordinative capacity. Favourable outcomes are only observed when we elect to collaborate.

The research concludes with a theoretical framework that includes core values and guiding principles that may be used as a foundation for anti-polarization or depolarization initiatives. Being rooted in the human experience, the framework seeks to provide an action-oriented guide for managing and tending to our needs to promote a pluralized yet coordinated society.

Limitations and next steps

One limitation of this research is the singular perspective that compiled the research and authored this report inherently contradicts the overarching message of the research. Mitigating the bias found within this work would require that it sustains a process of review, feedback, and revisions from a variety of perspectives. The research also would have been better supported by expert interviews and/or a secondary advisor in one of the related disciplines explored to corroborate the information presented and synthesized.

This research may be expanded in a number of ways, including an evaluation of the theoretical framework presented; an investigation of other leverage points in the system, such as the governance structure in Canada or national and global political and economic factors contributing to affective polarization; an examination of organizational behaviour to investigate whether any parallels could be made between the guiding principles and organizational competency.

I hope this research has offered an alternative way of thinking about our problem in focus and about other people we previously could not or did not want to understand. With any success, it would have prompted a desire to understand and a desire for more meaningful interactions in our pursuit to move forward, together.

APPENDIX | Appendix 1

Research methods and methodology

Research process

Figure 3 provides an overview of the research process: the methods used within each phase and how those methods relate to one another to form the research methodology.

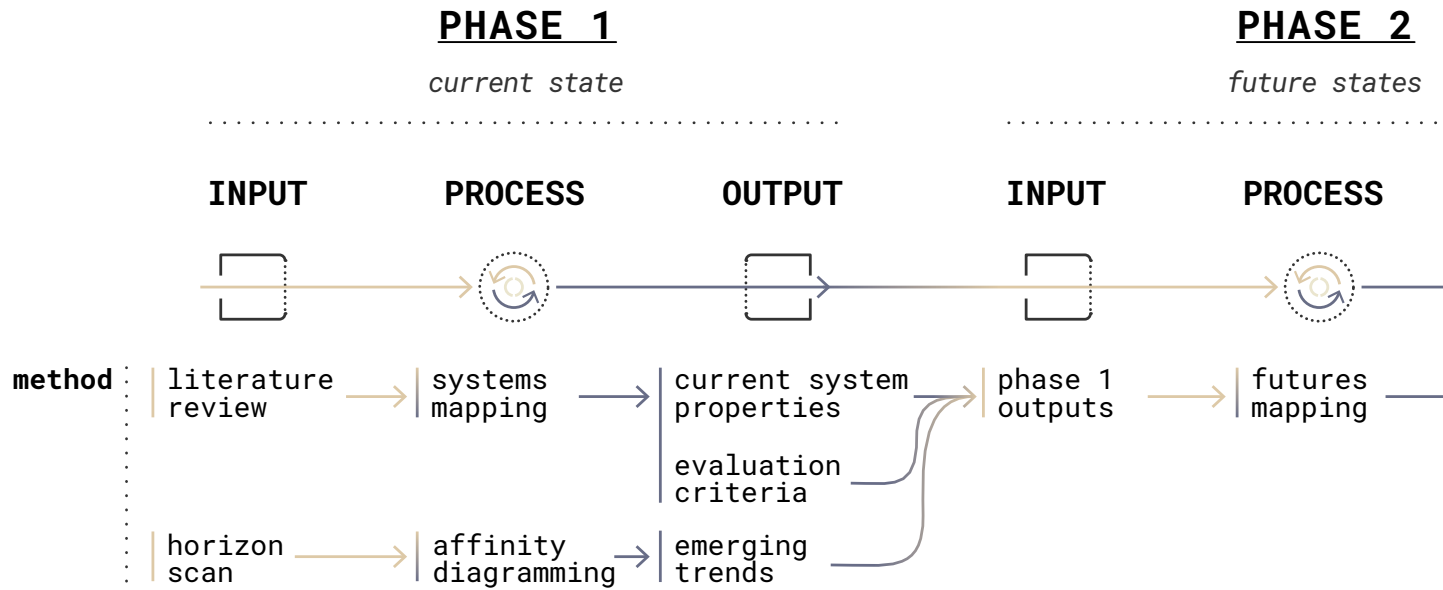
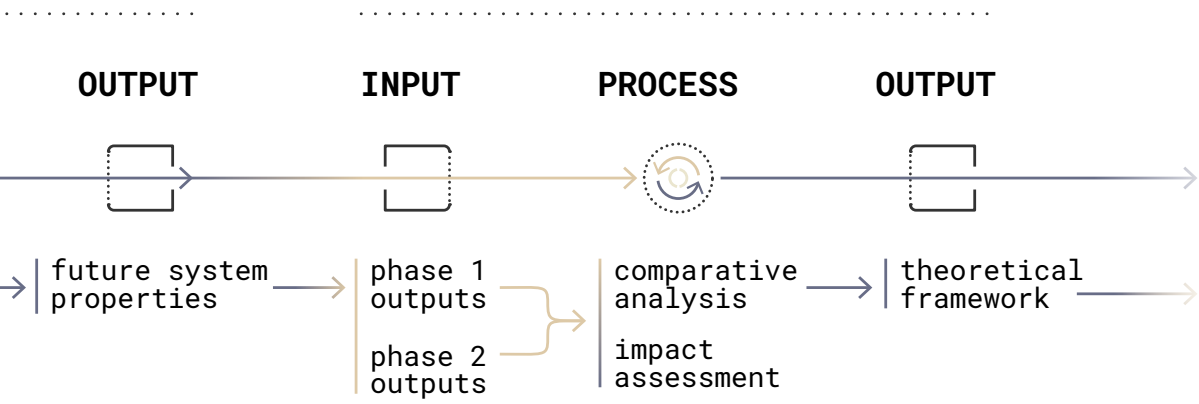


Figure 3 | Research methodology: input-process-output

PHASE 3

transition state



Research overview

The research conducted throughout this project evolved from a combination of tools, principles, and methods from design thinking¹, systems thinking², and futures thinking³. Using the Input-Process-Output (IPO) methodology, the project was segmented into three phases: [1] The current state, [2] the future state, [3] the transition state.

The phases of the project are structured in alignment with a futures thinking approach, which presents a non-linear concept of time in a way that an examination of the current context informs potential outcomes for future outcomes. These future outcomes may then be used to guide decision-making in our current context. Figure 4 is a visualization of this process.

All three phases emerged from a process of gathering secondary research sources, analyzing the data collected, and extracting key insights that would set a foundation for the next phase.

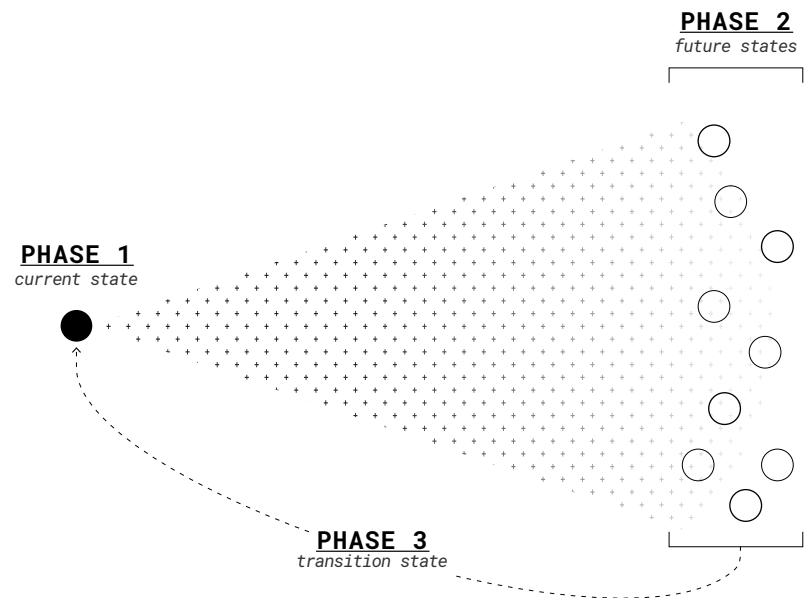


Figure 4 | Futures-oriented research methodology

- 1 *Design thinking: a methodological approach to identifying and solving problems.*
- 2 *Systems thinking: a methodological approach to understanding complex, interconnected relationships.*
- 3 *Futures thinking: a methodological approach to extrapolating potential outcomes in the future.*

PHASE 1: *current state***INPUT**

Literature review. A scan and compilation of existing research and information relevant to the project focus was conducted, including an inquiry into the cause for the emergence and escalation of affective polarization, as well as potential solutions. Over 70 books, journal articles, news articles, academic papers, reports, podcasts, and blog posts were reviewed covering topics on social and group identity formation, belonging, knowledge and truth, rationality, group allegiance and conformity, group identity and sense of self-formation, human emotion, vulnerability, and collaboration. This inquiry was scoped using the project structure (three dimensions of decision-making: individual, relational, and material). The literature revealed the following:

[1] The central problem of the research is that affective polarization inhibits coordination and decision-making, two necessary components of a functioning society.

[2] A gap in the current literature indicates that there currently exists no set of comprehensive principles aligned with this project's objectives to support coordination and decision-making strategies in a polarized society.

Horizon scan. Emerging potential forces of change were identified by conducting a horizon scan. Individual data points are known as weak signals which, when clustered, form emerging trends. Approximately 500 weak signals were gathered.

PROCESS

Systems mapping. Systems thinking is an approach to understanding, synthesizing, and analyzing systems as wholes (Gharajedaghi, 2011). Often, systems are complex, made up of many interconnected parts, and are themselves parts of different or larger systems. The saying the 'whole is greater than the sum of its

parts' is often used to conceptualize systems, referring to the concept of 'emergent properties', meaning that only from the system as a whole, does a particular property arise. This property is not found individually in its parts. The literature gathered was input into several systems design tools to form a deeper understanding of the system:

Stakeholder analysis—a matrix used to map the decision-making power and the hierarchical needs of each key stakeholder. It revealed the power dynamics involved in the system, as well as stakeholder motivations and incentives.

Systemigram—a diagram that maps parts of a system and the interrelationships between them (Boardman & Sauser, 2013). This tool was used to map the high-level interactions of system catalysts (stakeholders and instruments) on the relational dimension.

Iterative process of inquiry—a process that seeks to define a system of varying operative dimensions. It maps the system function (what it does), structure (its components), process (how it works), and purpose (its context) (Gharajedaghi, 2011). This tool was used to understand and visualize how this system escalates on the individual (human) dimension as it pertains to social identity.

System archetypes—patterns of common system behaviours (Senge, 2006). These archetypes formed the foundation for diagramming system outcomes on the material dimension as it pertains to how our social identities affect knowledge creation.

Causal layered analysis—a top-down process of uncovering the multi-layered dimensions of a system by assessing the most visible manifestations (day-to-day recurring outcomes) to

the deep-rooted myths and metaphors upon which the system operates (Inayatullah, 2008). This tool revealed the overview and essence of the current state, including its underlying driving forces.

Affinity diagramming. The weak signals compiled during the horizon scan were clustered and categorized using an affinity diagram. Categories were determined on the basis of:

STEEPV—a framework intended to promote an all-encompassing inquiry (MaRS, n.d.) of the following factors: social, technological, economic, ecological, political, and values.

OUTPUT

Current system properties. The research analysis revealed key stakeholders, their fundamental needs, and the interactions between them. It also revealed prominent drivers of affective polarization from a human experience perspective and the significant societal consequences that we face as a result.

Evaluation criteria for societal coordinative capacity. Six criteria are uncovered through the identification of leverage points in the system during research analysis. These criteria were defined according to a low-moderate-high rating scale that established an ideal score for each criterion. These ideal scores formed the overarching model system score.

Potential emerging trends. Clustered weak signals formed a set of potential emerging trends. Relevant trends were selected in alignment with the project guide.

PHASE 2: *future states*

INPUT

Phase 1 outputs. The current system properties were used to provide structure to the alternative system states; the evaluation criteria were used to evaluate the alternative system states; and the potential emerging trends were used to inform the narratives of the alternative system states.

PROCESS

Futures mapping. Futures thinking, or foresight, is a systematic, research-based approach which recognizes the reality of alternative futures¹ (Voros, 2001). The goal of futures thinking is not to predict what is to come, but rather to envision alternative futures that exist on a spectrum of likelihood and is often used to inform today's decisions to reinforce resilient and antifragile² systems and structures. Alternative future system states (scenarios) were developed and analysed using the following:

Causal layered analysis—the same systems tool from Phase 1, only this time implemented in the context of foresight. The futures application of the tool is a bottom-up process of uncovering the multi-layered dimensions of a system by beginning with a deep-rooted myth and/or metaphor, and working upwards to the most visible manifestations (day-to-day recurring outcomes) of the system (Inayatullah, 2008). This tool provided a structure within which to form the alternative states, however, the deep-rooted myths and metaphors were determined using one of four ways to deal with problematic

1 *Futures is used in its plural form in recognition of many potential outcomes.*

2 *Antifragility is a concept and term coined by Nassim Nicholas Taleb referring to a property or quality of a system that allows it to thrive in the face of "volatility, randomness, disorder, and stressors" (2012). Taleb rejects commonly used opposites for 'fragility' such as resilience or sturdiness, because they imply resistance without change. Antifragility takes on stressors and emerges stronger as a result.*

situations: exit, adapt, force, or collaborate (Kahane, 2017). The alternative states that emerged were those in which society had opted for one of these decision-making approaches.

OUTPUT

Future system properties. Four alternative states and their respective properties emerged.

PHASE 3: *transition state*

INPUT

Phase 1 and 2 outputs. The system properties of the current and alternative states were used to conduct the comparative analysis. The evaluation criteria assessed all five states independently and comparatively.

PROCESS

Comparative analysis. An assessment was required to validate research findings and outputs thus far, and was conducted using:

Comparative matrix—a matrix that assesses all five (current and future) system states against one another using the evaluation criteria for coordinative capacity. The deviation of each criterion in each state from the model score is noted to highlight overall outcomes across all system states. Key insights from the comparative analysis were used in conjunction with the current system leverage points to produce the output of this phase.

OUTPUT

Theoretical framework for building coordinative capacity. Four core values are proposed to underpin strategic anti-polarization (preventative) and depolarization (mitigative) initiatives from the perspective of the human experience. The core values for building coordinative capacity were expanded on to clarify their connection to this research and the project objectives. This output prompts the need for an impact assessment to determine the efficacy of the values in

influencing desired change; in other words, to validate whether the core values could theoretically bring the five system states closer to the model score. An impact matrix is used to theoretically apply the core values for building coordinative capacity to the evaluation criteria for coordinative capacity. This assessment confirmed the theoretical validity of the core values, which warranted further expansion of the values into a theoretical action-oriented framework consisting of guiding principles that could be integrated into strategic anti-polarization and depolarization initiatives from the perspective of the human experience.

Potential opportunities to expand this research could include one or a combination of the following: [1] evaluating the validity of the theoretical framework proposed by this research in a practical research setting; [2] conducting a thorough systems analysis on the governance structure in Canada and a comprehensive inquiry into national and global political and economic factors contributing to affective polarization; [3] exploring this topic through the lens of organizational competency to determine how the concepts investigated and proposed by this research may be transferred to an organizational context.

Appendix 2

Dimensions of decision-making

1 The relational dimension

Forward-bound: the relational dimension overview and component elements

The second circle (middle ring) represents the relational dimension—the hub of human activity. It explores the interactions that exist and occur among humans, and in this report specifically, among a selection of key stakeholders relevant to polarization. Human interactions, for the purpose of this report, refer to a network of smaller and larger-scale interconnected and overlapping groups of people performing coordinated tasks on those varying scales. This dimension also includes the systems and structures within our society that result from our interactions.

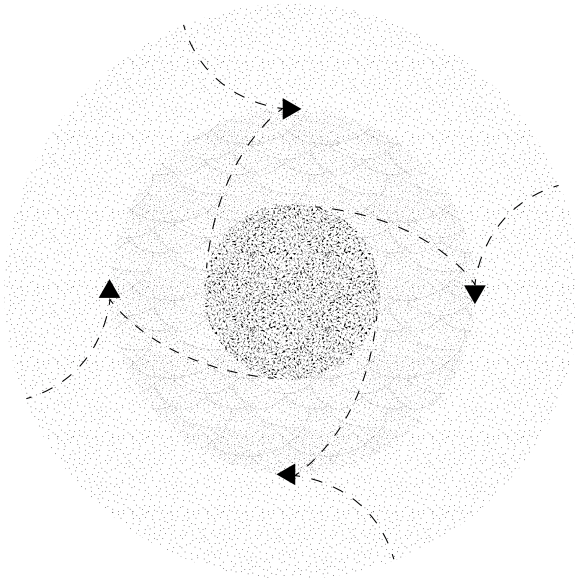


Figure 5 | The relational dimension in context

Figure 5 depicts four arrows encircling the middle ring that are directed in a clockwise formation at the top, bottom, right, and left side of its outer edge, representing its circular, yet forward-bound (evolving) nature. Curved

and dashed directional lines indicate the sources that fuel and enclose this dimension: the material domain, our environment, the source of all of our information, as well as the individuals whose experiences drive human interaction. The relational dimension is as a result, constructed from and influenced by these other two dimensions.

2 The individual dimension

Inside-out: the individual dimension overview and component elements

The centre circle represents the individual dimension—the vehicle of interaction. It explores the human experience, composed of biological and psychological functions that drive our needs, emotions, cognition, and behaviours as they relate to affective polarization.

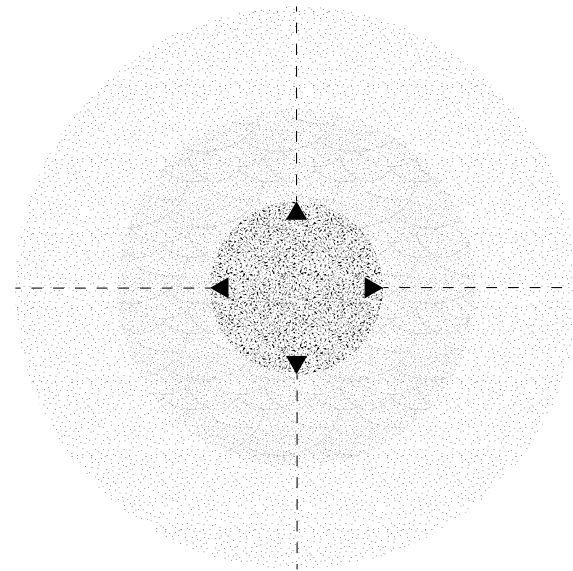


Figure 6 | The individual dimension in context

Figure 6 depicts four arrows encircling the top, bottom, left, and right points of the centre ring that are directed

outwards at the circle's outer edge. Straight and dashed directional lines continue from the point of each arrow and radiate out to the bounds of the largest circle (the material dimension), representing the force we exert as humans onto our interactions and the world around us as a result of our inner functions and experience.

3 The material dimension

Outside-in: the material dimension overview and component elements

The third circle (outer ring) represents the material dimension—the domain of our environment, the source of all of our information, the target of our observation. It explores how knowledge is gathered, negotiated, and shared. The existence of this domain inherently questions the paradigms we operate within—our systems—and our human-constructed worldviews.

Figure 7 depicts four arrows encircling the top, bottom, left, and right points of the centre ring that are directed inwards from the circle's outer edge. Straight and dashed directional lines continue from the point of each arrow and radiate in towards the centre of the circle (the individual dimension), representing the journey that events and activities in the world take from an objective materialization to their subjective interpretation as they filter through our human lens and perception.

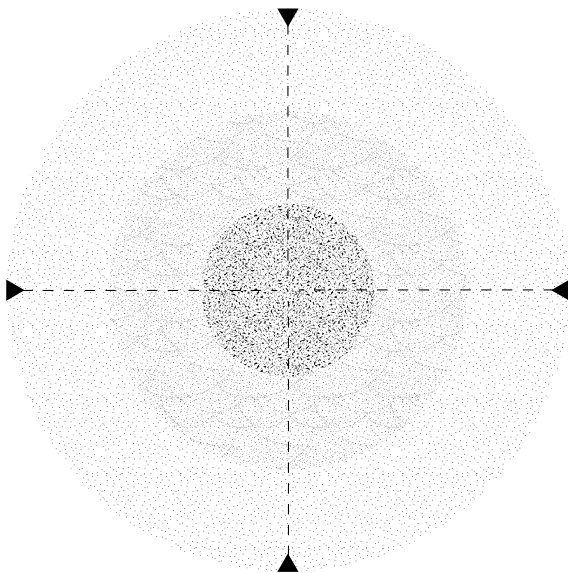


Figure 7 | The material dimension in context

Appendix 3

Potential indicators of change: emerging trends



Trend 1. AI-generated images

Artificial intelligence that translates user prompts into increasingly realistic and precise visual depictions of those prompts.

AI-generated images are becoming a publicly accessible resource. These images are created via a number of formats and methods, such as user-controlled digital brushstrokes which produce realistic renderings of landscapes or creatures, or text-to-painting, where text inputs produce images in an artistic, stylized format, or more generally text-to-image, which implies the output of any format, style, or degree of photorealism that is indicated by the user.

The technology is growing increasingly precise with interpreting and processing text description inputs into imagery that aligns with the content in the text prompt. This level of processing requires a complex and vast understanding of language and sentence structure, and it is continually improving. The tool can be found from an expanding selection of sources, including Imagen,

DALL-E, NVIDIA Canvas, Chimera Painter, Wombo, Midjourney, and Craiyon.

Implications

There are boundless possibilities for how the trend will evolve, and the functions it will develop (VR x AI painting, the level of customization and specificity, text-to-video generation, etc.).

Data which is pulled from the web to generate the images can be problematic and harmful—representative of bias, stereotypes, oppressive and discriminatory perspectives. This prompts ever-evolving ethical practices to be implemented in the code of these technologies to manage inputs and outputs of information.

On the other hand, a curated data set comes with its own risks, as the curation is subject to human bias and manipulation.

Unrestricted access to the technologies can allow the potential for propaganda, public safety, exposure of harmful content.

Increased need for determining boundaries of censorship content by corporations or government.

Extrapolations

The human capacity for creativity could undergo a revolutionary shift. Learning to speak articulately and expressively to AI leads to a new, highly accessible era of art and content generation. It prompts an evolution in human cognitive processes as they relate to innovation, imaginative capabilities, and envisioning cause and effect. Society experiences a rise in innate futures thinking which initiates positive change.

Devaluation of information. Accessible AI-generated image creation escalates to an uncontrollable

spread of misinformation and disinformation, distributed by all outlets of information including media and among the public themselves. This ends up entirely devaluing information, evidence, and fact, and pollutes our knowledge resources. Additionally, the public experiences a desensitization to a variety of content and media.

Related trends

Web 3: decentralization of the internet whereby power is shifted from corporations to individuals.

Deepfakes: images or videos manipulated to appear as though a fabricated event actually occurred.

Counter-trends

Online censorship: currently primarily done by social media corporations to manage the spread of content deemed offensive or hateful.

Government-mandated internet shutdowns: enforced regulation of the internet by restricting access to some or all of it by various means.



2. Government-mandated internet shutdowns

Enforced regulation of the internet by restricting access to some or all of it by various means.

A steady global rise in government-mandated internet shutdowns have been observed over the last few years. In 2021, 31 countries deployed shutdowns to some degree, totaling at least 182 shutdowns (Díaz Hernandez & Anthonio, 2022). They may be employed to varying degrees and targeting different methods of constraints (i.e., throttling, IP blocking, mobile data shutoffs, DNS interference, server name identification blocking, and deep packet inspection) (Jigsaw, 2021), and can target specific locations and/or populations.

Generally, the shutdowns are presented by governments as “precautionary measures”, public safety measures, or limiting misinformation dissemination, but are in fact largely prompted by a number of recurring circumstances, including political instability, protests, military operations and coups, elections, communal violence, and school exam cheating (Feldstein,

2022), (Duggal, 2021). These shutdowns may also be undetectable by the public. Certain tactics are implemented such as slowing down the overall connection or targeting specific sites which can appear to be technical issues. While this primarily occurs on social media and messaging platforms, it could also target specific sites or services, and could include imposing regulations on companies regarding content censorship.

Implications

Access to internet is associated with free speech and freedom of expression, as well as access to public information. There is agreement among global democracies that these are all considered human rights, thus, shutdowns are human rights violations.

Shutdowns have detrimental impacts on society and the economy. They prompt public distrust towards the government and other citizens, and erode trust in democracy. Additionally, a network of essential systems can be affected such as journalism, education, and health care.

Evidence suggests that shutdowns actually aggravate violence rather than prevent or mitigate it.

Weaponization of the internet in the interests of authorities. This could include silencing speech and messaging that conflicts with government interests or attempting to keep people in fear.

Definitions of terrorism and extremism are easily manipulatable, and can be used as mere justifications for shutdowns.

Extrapolations

Global spread of democratic backsliding. Shutdowns become an “all-in-one tool to assert control over populations” (Woollacott, 2022). As mandated shutdowns continue to be justified by governments, they gain momentum to the point of becoming normalized. Governments exploit the power of public knowledge and access to public information, and societies find themselves increasingly under autocratic rule, slowly stripped of their liberties.

Aggravated affective polarization and hostile society. Increased distrust towards government and others leads to protest, violence, riots, and attempts of overthrowing the government in revolt.

Non-virtual or undetectable forms of organization and communication. In response to a highly surveyed and volatile internet environment, people find alternate modes of communication.

Related trends

Information warfare: intentional dissemination of false information in the interest of political gain.

Counter-trends

Global condemnation of internet shutdowns on the basis of them violating human rights.

The emergence of internet shutdown resistance strategies.



3. Two-Eyed Seeing

The integration of Indigenous knowledge and ways of knowing with western liberal science approaches.

Reconciliation efforts are increasing, following a greater public awareness and accountability of Canada's past and continued oppression of Indigenous peoples. As it pertains to knowledge, supporting reconciliation is the recognition of the infinite ways one may perceive the world.

Two-Eyed Seeing (Etuaptmumk) is a form of Integrative Science designed to bring together different worldviews: western science and Indigenous knowledge and ways of knowing (Bartlett, 2012). It is described as a difficult but necessary guiding principle for how we may co-exist. It is deemed beneficial for our society to find the strengths in both of these perspectives, mindfully bring those strengths together, and take the best of both western and Indigenous tools and their deep understandings to move forward together—the idea being that we cannot thrive in isolation.

Western science is grounded in a compilation of written records of observation, while “Aboriginal epistemology is grounded in the self, the spirit, the unknown” (Bartlett et al., 2012). It represents “ethical space” which is the engagement of two worldviews towards dialogue and united decision-making (Ermine, 2007).

Implications

This could prompt a new level of innovative thinking, reform to our societal systems, significant cultural or paradigm shifts, alter our association to and management of the environment.

Barriers may include the coordination of the diversity within Indigenous languages and cultures in Canada and globally.

Increased risk for Indigenous appropriation and exploitation.

Increased initiatives towards protecting Indigenous intellectual property (material and non-material property such as oral stories and history, songs, styles, etc.).

Establishment of a shared agreement of our objectives for knowledge generation, and establish definitions, standards, and practices of knowledge in this integrative context.

This process could evolve slowly or potentially be accelerated by a drastic event that necessitates immediate and widespread efforts.

Significant initiatives towards change management may be required with those indoctrinated in Western science and its practice.

Extrapolations

Humans enter a new era of enlightenment. Through integrative science, we develop a greater capacity for knowledge and understanding, new cognitive capabilities, and a deeper understanding about the world.

Society undergoes incremental systemic restructuring across social, political, economic, and cultural realms, as well as in education. People uncover new meanings in life; the objectives and processes of governance evolve; the 'economy' begins to represent something different; alternative standards and practices in education including reform in curriculum and teaching and learning content and method; new worldviews begin to form.

Related trends

Indigenization: instilling Indigenous influence.

Decolonization: eliminating colonial influence.

Truth and Reconciliation in Canada.

Counter-trends

The Rise of the Alt-Right: the radical right movement which tends to seek 'revival of national identity'.

Troll Culture: the spread of disinformation & alternative realities.



4. Ministries of Futures

Government agencies focused on future-oriented policy development and initiatives.

Ministries of Futures, or similar futures-focused governance initiatives, are designed so that long-term impacts of decision-making are thoroughly considered. It has to do with creating “future-oriented policy and programs that are more robust and resilient” (Policy Horizons Canada, n.d.). UN member states agree that today’s challenges are globally interconnected (United Nations Secretary General, 2021), and thus, such initiatives would also focus more strategically on global long-term issues such as climate-related issues or poverty. This addition to the governance structure provides a voice to future generations, who are granted the status of relevant stakeholders with tangible influence on policies and decision-making.

Several current examples of such agencies include: Wales’ Well-being of Future Generations Act 2015, Sweden’s Ministry of the Future 2014, Scotland’s

Future Generations Commissioner 2021, United Arab Emirates’ Minister of Cabinet Affairs and the Future (Samuel, 2022), and Canada’s Policy Horizons.

Implications

It may prompt a need for change management initiatives across government to integrate new processes as well as welcoming new potential limitations on policy and decision-making.

These initiatives may not be well-received for today’s public, who will likely not experience their value soon enough or within their lifetime, especially if it leads to increased taxes to account for the additional resources associated with providing this public service.

Welcoming these initiatives requires a cultural shift to value foresight as a need rather than a luxury, and policy must shape this cultural evolution onto the public and on businesses.

The current four-year electoral structure may not be conducive to such long-term planning. Future-focused segments of government rely on coordination and collaboration of all ministries and functions of the government, or, part of their function can be to support this needed coordination.

A need for increased and targeted trends analysis and scenario generation to identify key issues.

Extrapolations

Decelerated economic growth. Increased regulations and drawn out processes related to long-term thinking and planning could impact economic development. The government may, as a result, impose more taxes and increase rates of current taxes.

Improved emergency management. Long-term

thinking and planning leads to antifragile systems, meaning, future crises have less severe impacts on people and systems, and even have positive effects in that it leads to incrementally stronger and more favourable systems and institutions.

Public foresight and futures literacy. Ministries of futures may inspire a cultural evolution in which futures thinking becomes integrated in all realms of society, including public services, all levels of government, infrastructure, education, career planning, and is generally widespread in the personal lives of citizens.

Related trends

Climate Crisis: the consequences of human activity on the natural environment.

Counter-trends

Democratic backsliding: The loss of democratic characteristics in a once-democratic society.



5. Democratic backsliding

The loss of democratic characteristics in a once-democratic society.

Democratic backsliding is the trend towards autocratizing a government structure. Reports indicate a global democratic recession, which has been exacerbated by the pandemic. There are numerous ways that a democracy can be threatened, and several of them are identified in our current state.

The rise of “Trumpism”, “Brexit”, and populism in general may indicate this trend. Surveys imply a “greater willingness to elect strong executive leaders, and the rise of parties that represent ‘the people’ at the expense of liberal values and minority rights” (Ruparelia, 2021). Extreme polarization is also correlated with democratic decline—since 1950, of the 52 cases of extreme polarization, 26 experienced a decline in their democratic rating (McCoy & Press, 2022). When parties and partisans feel the ideologies of the opposition are immoral or dangerous, it may lead to a strong incentive

and desire to maintain their party’s interest by any means necessary, such as voter suppression. Additionally, our increasingly complex and rapidly evolving world may lead us to forfeit democratic practices. This, compounded with large-scale, global issues such as climate change and inequality generate instability and uncertainty. In times of extreme uncertainty, authoritarian leaders have historically rose to power “as a result of an overwhelming desire from the public for firm leadership” (Van Bavel & Packer, 2021). This same desire tends to emerge within people who feel wronged by capitalism and the free market. Propaganda and attacks on our collective knowledge, such as troll culture and cancel culture, also degrade democracy. The spread of misinformation and disinformation obstructs truth and our sense of reality, while social coercion and censorship impede on freedom of thought. Lastly, the intent of democracy is to enable the public to select true representatives of their needs, but this process is undermined by the “corrupting influence of campaign donors; the racial, gender, and other biases of voters; voter ignorance about which politicians and policies will best pursue their values”, etc. (Matthews, 2022)

Implications

Increased autocratic processes and authoritarian leadership; including a rise in enforced regulations, loss of civil liberties such as voting and freedom of expression.

Canada’s political, economic, and cultural proximity to the United States may influence its own political trajectory.

Challenging invalid assumptions that because Canada has been a democracy, it will always be so. Every system requires attention, discretion, and active innovation.

Extrapolations

Society finds itself governed by an increasingly authoritarian regime, brought about by either political partisan group. This could obstruct further expansion of social justice and human rights, and lead to the loss of those already gained.

Related trends

Government-Mandated Internet Shutdowns.

Cancel Culture: the spread of enforced conformity & ideological blacklisting.

Troll Culture: the spread of disinformation & alternative realities.

The Rise of the Alt-Right: the radical right movement which tends to seek 'revival of national identity'.

Counter-trends

Open Democracy: a form of democracy in which candidature is truly accessible to ordinary citizens.

Rejection of a False Democracy: an interpretation of the political climate in which democracy is not backsliding, rather people are rejecting a system that presents as democracy but isn't actually, which is in itself democracy in action.

Appendix 4

Alternative future outcomes

Defining system criteria

As mentioned in the project scope, polarization in itself is not a bad thing. In fact, diversity of opinions is a desirable quality, and conflicting opinions on how to move forward may even signify a strong democracy and an engaged group of people willing to coordinate towards problem-solving and decision-making. The objective of creating, defining, and evaluating alternative future outcomes for the purpose of this research is to assess specifically the conditions and decisions that provoke negative outcomes of polarization, allowing it to thrive.

Evaluating affective polarization

The factors defined in Table 4 have been extracted and synthesized from the concluding insights within Chapter 2 (system-in-focus). The research findings were determined to be solution-oriented and were used to establish the six criteria in the system evaluation. These criteria collectively assess coordinative capacity, an evaluation that directly addresses this project’s overarching research question: *‘how might we coordinate a polarized society despite an increasingly complex environment?’*. Drawing from the definition of coordination used in the context of the research question, coordinative capacity refers to our ability to *effectively orient ourselves towards collaborative initiatives in order to make collective decisions about how to move forward*. Coordination is critical to a society that aims to thrive in the face of inevitable challenges, as it enables well-informed decision-making.

Rating categorizations range from low, moderate, and high, but the numerical score assigned to each is on a scale of 1 to 5 to highlight more granular variances.

Based on this evaluation matrix, a desired result is a system that engages in both conformity and nonconformity. More specifically, one in which all

stakeholders adhere to shared agreements and a level of coordination that enables decision-making, while at the same time allowing pluralistic qualities to flourish. Pluralism in this context seeks to cultivate an equitable society where self-determination and an abundance of perspectives can support innovative and comprehensive decision-making. High levels of tolerance to dissent and ambiguity, equity, trust, and innovation are indicators of a society which has strong coordinative capacity. Consequently, it is favourable that these criteria have higher evaluation scores.

On the other hand, high levels of political regulation would suggest a loss of civil liberties and an oppressive structure which seeks to impose unilateral decision-making. Low levels of political regulation may represent a neglected or anarchic society in which no coordination exists to facilitate collaborative decision-making. A moderate score is preferred for these reasons.

A model score would look as similar as possible to Figure 8. Note that the model score is theoretical and primarily meant to be used as a baseline score against which to compare scores of all other systems.

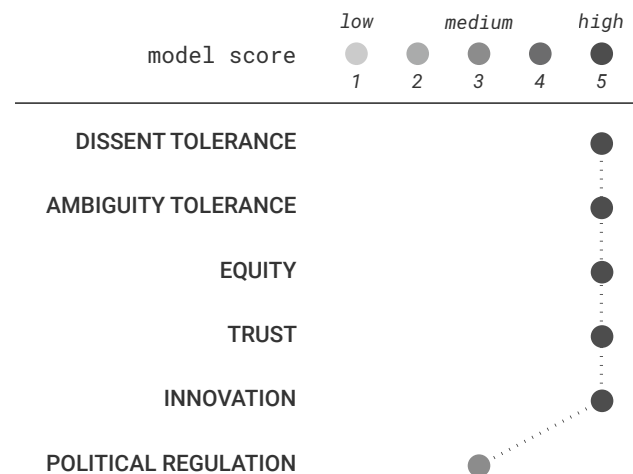


Figure 8 | Model evaluation score for coordinative capacity

APPENDIX

EVALUATION CRITERIA <i>The degree to which...</i>	RATING (SCORE)		
	LOW (1-2)	MODERATE (3)	HIGH (4-5)
DISSENT TOLERANCE ...deviances from the norm (alternative, conflicting, and controversial ideas and opinions) are tolerated by society.	Society is highly averse to dissent in any form.	Society is accepting of some forms and degrees of dissent.	Society is relatively open to, and at times, encouraging of dissent.
AMBIGUITY TOLERANCE ...society tolerates uncertainty, risk, and gray areas pertinent to decision-making and matters of moral debate.	Society is made highly uncomfortable with ambiguity in any form.	Society perceives some forms and degrees of ambiguity to be tolerable.	Society is relatively comfortable with ambiguity; at times it even enables prosperity.
EQUITY ...financial equality and self-determination is experienced across all members of society.	Inequities in all respects of the term are extreme and highly visible.	Inequity is moderately experienced; to varying degrees for some of society.	Equity is experienced in all respects of the term for all of society.
TRUST ...society has confidence in the competency of its institutions and the public perception of those institutions' regard for the well-being of individuals.	Society has little to no confidence in its institutions, and perceives a lack of all concern for individuals' well-being.	Society has some confidence in its institutions, and perceives moderate concern for individuals' well-being.	Society has a high level of confidence in its institutions, and perceives high concern for individuals' well-being.
INNOVATION ...society values and engages in innovative thinking across social, technological, economic, and political realms.	Innovation is undervalued and neglected by society.	Innovation is selectively valued and to varying degrees depending on the circumstance.	Innovation is highly valued across all realms.
POLITICAL REGULATION ...governing authorities intervene in and oversee the daily operations of its public.	Society is politically unregulated in all aspects.	A moderate level of political regulation is in effect for some realms, and to varying degrees.	A high level of regulation is in effect across most or all realms.

Table 4 | System evaluation criteria for coordinative capacity

Appendix 5

Alternative futures of 2042

2042: Truman

Approach | Exit, multilateral

Position | Avoidant

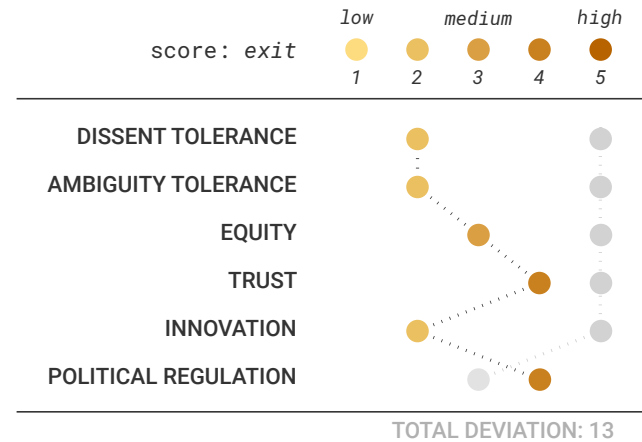


Figure 9 | 'Exit' evaluation score and deviation

SYSTEM QUALITIES	ALTERNATIVE STATE—2042
Decision-making approach	Exit
System Title	Truman
Myths & metaphors	<i>Out of sight, out of mind</i>
Governance strategy	Situation-avoidant: busy managing symptoms, not addressing cause
Governance	Weak Democratic
Social constructs	<i>What you don't know can't hurt you</i>
Social interaction	Ingroup association only
Social services	Inconsistent allotment; services are struggling
Knowledge creation	Uncoordinated, politically-motivated
Technological integration	Extensive for the public; elevated for regulatory purposes
Environmental state	Critical
Economic priority	Survive
Culture & values	<i>Conflict is perceived to be a major threat; "Ignorance is bliss"</i>

Table 5 | System summary of the alternative state 'exit'



VISIBILITY	SYSTEM DIMENSIONS	SYSTEM MANIFESTATIONS	TIMEFRAME
<p>Visible</p>  <p>Hidden</p>	<p>Recurring outcomes <i>(day-to-day manifestations)</i></p>	<ul style="list-style-type: none"> + Poor handling of events and circumstances resulting in high levels of damage and loss + Decisions are made slowly or not at all + Groupthink, conformity + Frequent internet disruptions + Censorship of content, information, speech + Misinformation and disinformation is pervasive + Downplaying the severity of events and circumstances + Fabricated evidence 	<p>Short-term</p>  <p>Long-term</p>
	<p>Systemic causes <i>(long-term manifestations)</i></p>	<ul style="list-style-type: none"> + Reactionary policy: “we’ll cross that bridge if or when we come to it” + Ideological segregation + Siloed processes & departments + Uncoordinated policy – extreme misalignment between federal, provincial, and municipal pursuits + Echo chambers online (i.e., algorithms; censored content & blocked access to information) and in person (i.e., physical segregation of two populations) + Bureaucracy 	
	<p>Worldviews <i>(long-term constructs)</i></p>	<ul style="list-style-type: none"> + Absolutism; there is only one truth + Dualism; good vs evil + Hierarchical society 	
	<p>Myths/Metaphors <i>(deeply-embedded principles)</i></p>	<ul style="list-style-type: none"> + “<i>Out of sight, out of mind</i>” 	

Table 6 | Causal layered analysis of the ‘exit’ alternative outcome

2042: *Nightingale*

Approach | **Adapt, unilateral**

Position | **Cooperative**

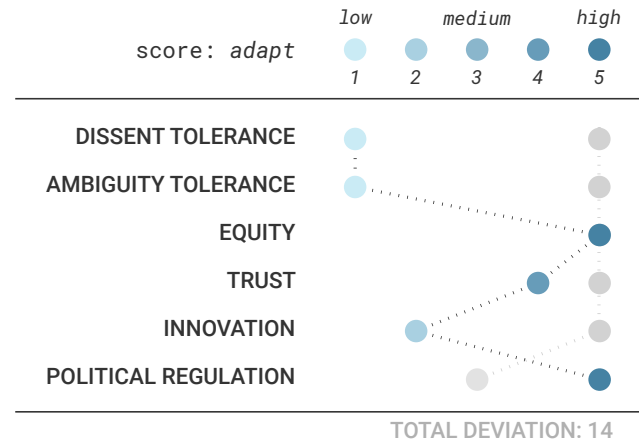


Figure 10 | 'Adapt' evaluation score and deviation

SYSTEM QUALITIES	ALTERNATIVE STATE—2042
Decision-making approach	Adapt
System Title	Nightingale
Myths & metaphors	<i>When in Rome...</i>
Governance strategy	Unilateral: onwards with liberal ideology only
Governance	Autocratic
Social constructs	<i>Zero tolerance for hate</i>
Social interaction	Conformity via weaponized shame
Social services	Free essential services, i.e., all levels of education, holistic health care, & basic income
Knowledge creation	Coordinated, Politically-motivated
Technological integration	Limited for the public; elevated for regulatory purposes
Environmental state	Recovering
Economic priority	Local growth prioritized
Culture & values	<i>Hive mind policing; "if you see something, say something"</i>

Table 7 | System summary of the alternative state 'adapt'



VISIBILITY	SYSTEM DIMENSIONS	SYSTEM MANIFESTATIONS	TIMEFRAME
Visible 	Recurring outcomes <i>(day-to-day manifestations)</i>	<ul style="list-style-type: none"> + Ideological conformity + Suppression of speech + Minimal research initiatives + Public services for all + Basic income + High demand for mental health services + Overburdened, understaffed health institutions/services + Low supply and inflation of goods and services 	Short-term 
	Systemic causes <i>(long-term manifestations)</i>	<ul style="list-style-type: none"> + Pervasive surveillance + Social policing + Nationalization + Defunding of research & science + Expectation of holding oneself and others accountable + Stringent and bureaucratic research ethics regulation + Low government transparency 	
	Worldviews <i>(long-term constructs)</i>	<ul style="list-style-type: none"> + Collectivism; prioritization of community + Localism; prioritization of local growth + Progressivism; prioritization of social reform + Moral Universalism; one set of ethics for all + Absolutism; there is only one truth + Splitting; all-or-nothing thinking 	
	Myths/Metaphors <i>(deeply-embedded principles)</i>	<ul style="list-style-type: none"> + "When in Rome..." 	
Hidden			Long-term

Table 8 | Causal layered analysis of the 'adapt' alternative outcome

2042: *Success to the Successful*

Approach | Force, unilateral

Position | Combative

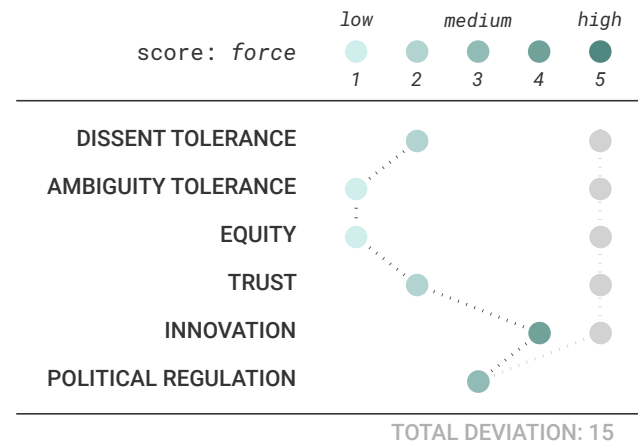


Figure 11 | 'Force' evaluation score and deviation

SYSTEM QUALITIES	ALTERNATIVE STATE—2042
Decision-making approach	Force
System Title	Success to the Successful
Myths & metaphors	<i>Every man for himself</i>
Governance strategy	Unilateral: onwards with conservative ideology only
Governance	Autocratic
Social constructs	<i>Respect for tradition</i>
Social interaction	Elite vs non-elite association only
Social services	Privatized services; prices align with quality
Knowledge creation	Coordinated, Politically-motivated
Technological integration	Extensive for consumption and profit; elevated for regulatory purposes
Environmental state	Critical
Economic priority	Continual growth prioritized
Culture & values	<i>Protection of freedom; pride in "family values"</i>

Table 9 | System summary of the alternative state 'force'

2042: *Symphony*

Approach | Collaborate, multilateral

Position | Cooperative

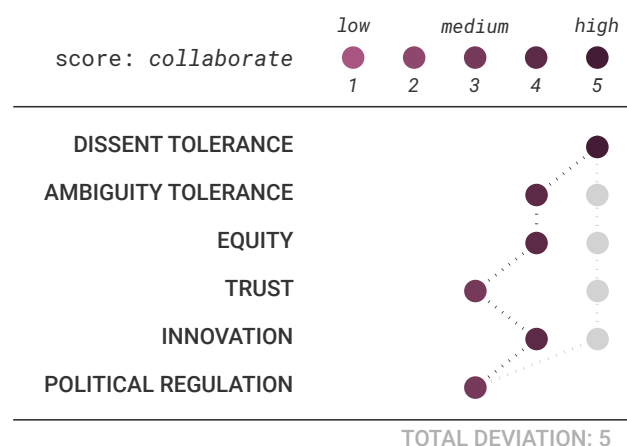


Figure 12 | 'Collaborate' evaluation score and deviation

SYSTEM QUALITIES	ALTERNATIVE STATE—2042
Decision-making approach	Collaborate
System Title	Symphony
Myths & metaphors	<i>There's always room for improvement</i>
Governance strategy	Multilateral: onwards with collaboration and pluralism
Governance	Open democratic
Social constructs	<i>The more, the merrier</i>
Social interaction	Mixed, connection exists by means of diverse shared experiences
Social services	Free essential services (definition of 'essential' is co-decided and regularly assessed)
Knowledge creation	Integrative science
Technological integration	Life-centered, tech-enabled
Environmental state	Recovering
Economic priority	Local supports; "inclusive and respectful global integration"
Culture & values	<i>"Find comfort in the discomfort"</i>

Table 11 | System summary of the alternative state 'collaborate'

APPENDIX

VISIBILITY	SYSTEM DIMENSIONS	SYSTEM MANIFESTATIONS	TIMEFRAME
<p>Visible</p> <p>.....</p> <p>Hidden</p>	<p>Recurring outcomes <i>(day-to-day manifestations)</i></p>	<ul style="list-style-type: none"> + Extended processes for decision-making + Tendency towards steady, incremental progress + High use of resources and human engagement + Expansion of taxable goods and services + Innovative systemic ideas and solutions + Stabilized tech innovation growth curve + Public literacy of decisions, policies + Frequent dissent & barriers of opinion 	<p>Short-term</p> <p>.....</p> <p>Long-term</p>
	<p>Systemic causes <i>(long-term manifestations)</i></p>	<ul style="list-style-type: none"> + Futures-focused institutions + High government transparency + Participatory decision-making; pace is set by the public + Policy protects free speech and expression for all + Mitigation of beliefs, opinions, behaviours that threaten physical safety + Tech-equity policy development + Cross-disciplinary departments 	
	<p>Worldviews <i>(long-term constructs)</i></p>	<ul style="list-style-type: none"> + Pluralism; multiple things can be true and exist at the same time, varied ways of observing and interpreting the world + Democratism + Social constructionism; much of what we know are social agreements 	
	<p>Myths/Metaphors <i>(deeply-embedded principles)</i></p>	<ul style="list-style-type: none"> + "There's always room for improvement" 	

Table 12 | Causal layered analysis of the 'collaborate' alternative outcome

Appendix 6

Alternative system observations

Outcome analysis

Upon review of the alternative outcomes as a collective, several insights emerged. Overall, unilateral decision-making of any kind resulted in the least desirable outcomes. The forceful approach (unilateral combative) taken in Success to the Successful deviated the furthest from the model system score. It produced the lowest levels of equity and trust. The adapt approach (unilateral cooperative) taken in Nightingale did not produce better results. It seems that adapt is the flipside scenario to force, only from the other, less powerful perspective's position: if one is having to adapt, then another stronger force is coercing one to do so. The exit approach (multilateral avoidant) in Truman was almost equally deficient in that it produced low or moderate levels of most criteria other than high trust and political regulation. Additionally, avoiding the problem prompted history to repeat itself in this scenario, with polarization beginning to resurface. The collaborative approach (multilateral cooperative) in Symphony yielded an outcome closest to the model system.

It should be noted that any one of these criteria in isolation are insufficient in determining the state of a system without the context of the others. For example, at first glance, high levels of equity and trust as we see in Nightingale may appear to indicate a positive outcome, but in the context of other criteria, proves to be an oppressive system in other ways. Inversely, in Success to the Successful an ideal level of political regulation exists, yet most of the other aspects in the system suffer.

Additionally, none of these outcomes or systems are perfect. Perhaps the model score itself is not the ideal, especially having been determined by one authored perspective and not by means of collective discussion and agreement. It did, however, provide a valuable

baseline against which to compare all systems.

Key insights from comparative analysis

A synchronous relationship between dissent tolerance and ambiguity tolerance. All scores of dissent and ambiguity tolerance tended to be associated with one another and correlated with levels of flexibility and willingness to be curious, as well as attitudes towards variety—which will be defined as diversity of ideas and general potentiality. Lower scores seem to stem from monistic system manifestations and constructs that include absolutism and/or splitting (all-or-nothing thinking), while higher scores tend to be associated with pluralistic constructs that value variety in group coordination and decision-making.

No scenario resulted in low political regulation. This may suggest that as the world continues to become more complex and uncertain due to technology, increasing global connectivity, and access to boundless information, there appears to be an inclination towards overcompensating for the complexity with governing micromanagement across corporations and government, rather than easing restrictions. In this way, if we generally tend towards more regulation in conflict or complex circumstances, the threat of losing one's personal rights and freedoms either incrementally or more suddenly at the onset of a disruptive event may be a rational concern for future events. The current state and alternative outcomes highlight the precarious nature of governance and how future events may further disrupt our societal functioning.

A synchronous relationship between trust and political regulation. This relationship contradicted initial assumptions: high political regulation tended to be associated with high trust, while moderate political regulation tended to be associated with moderate levels of trust. Upon deeper reflection, it is possible this phenomenon may be explained by two justifications.

The first is that higher levels of regulation may instill higher confidence in our institutions or at least an easing of uncertainty, to some degree. As mentioned earlier in the report, during highly uncertain times, people tend to seek firm leadership (usually associated with authoritarian approaches) (Van Bavel & Packer, 2021). The second potential cause relates to studies that suggest higher levels of distrust in government emerge when access to the internet is increased, and when the internet is uncensored (Guriev et al., 2019). In the context of the scenarios generated, it may be inferred that access to more, unregulated information (lower political regulation), leads to lower trust.

Pluralism is a rare but powerful force. Extracted from the first insight, lower levels of dissent and ambiguity tolerance will be defined as inflexibility, an unwillingness to be curious, and/or an aversion to variety. With the exception of Symphony, lower dissent and ambiguity tolerance are observed in every system; the tendency to harden and become desensitized, dissociated, or entirely segregated from alternative perspectives was a common outcome across scenarios. Because of this, it is inferred that pluralistic beliefs or practices tend to be a less common or potentially non-instinctual human tendency—an inference that may be further validated by our human desire and need to form social identities, as well as the behaviours associated with their formation and reinforcement as outlined in Chapter 2. That said, the impact of pluralistic beliefs and practices tended to generate a more desirable system outcome as a whole, as is presented in Symphony. It is deduced that higher levels of dissent and ambiguity tolerance enable stronger, antifragile systems as a whole due to the system’s frequent and widespread exposure to variety.

Note that these insights could be further tested for their validity in the context of a practical research application in a specific situation.

Appendix 7

The four C's for enabling coordinative capacity

Curiosity



Any effective truth-seeking endeavor is initiated by and conducted with curiosity (Rauch, 2021). Curiosity is an active desire and persistent application of that desire to deepen understanding. It goes beyond open-mindedness, which is perhaps more of a passive state of being willing to receive new information. Curiosity enables us to actively challenge our own biases, beliefs, opinions, worldviews, and those of others towards truth-seeking and collaborative solution-seeking outcomes. It does not necessarily undermine the perspectives it questions, but it may reasonably question their origins. In this way, being curious brings us that much closer to truth, evidence, and reality. Curiosity also has the potential to alleviate negative experiences associated with dissent and ambiguity intolerance, increase our tolerance of them, promote innovative thinking, and increase our willingness to work together. It is considered a strong foundation that enables a positive and cumulative effect on coordinative capacity.

Courage



The root origin of the word courage, before it became associated with heroism, was originally about the ability to “speak one’s mind by telling all one’s heart” (Brown, 2020). Brown reinstates the true meaning of courage, defining it as “speaking honestly and openly about who we are, what we’re feeling, and about our experiences (good and bad) (2020). In that respect, courage is measured by our ability to be vulnerable.

Vulnerability is defined as “the emotion that we experience during times of uncertainty, risk, and emotional exposure” (Brown, 2021). Many of us are raised to believe that vulnerability is a weakness. Brown has found no evidence of this in her research, in fact, the contrary appears to be true. While it often elicits

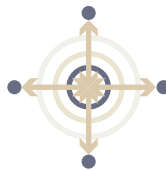
discomfort, it is a sign of inner strength that enables courage, meaningful connection, and transformational leadership.

Connection



In her research, Brown has uncovered that the purpose and meaning we find in life are rooted in connection and adds that, “...without it, there is suffering” (2012). Connection comes from true belonging, and true belonging is only achieved “when we present our authentic, imperfect selves to the world” (Brown, 2017). Without authenticity, our desire to be accepted and fit in with our social groups can actually degrade connection, leaving us to be associated in proximity to our groups, yet disillusioned by the persistent sense of unfulfillment. Where curiosity enables, connection, can reinforce and strengthen the interactions between us, and support our coordinative capacity.

Collaboration



Stretch is a value derived from Kahane’s concept of stretch collaboration. It differs from conventional collaboration primarily in that it “requires us to pluralize” and to “step fully into the situation” (Kahane, 2017). Pluralizing means embracing multiple realities, truths, and potential ways forward. Stepping into the situation means that we recognize our role in problematic circumstances as not only part of the solution but also as contributors to the problem. It asks that we let go of our preoccupation with changing others, and seek how we may instead change ourselves.

Appendix 8

Guiding principles

Principles for building coordinative capacity

Figure 13 visualizes a framework for building coordinative capacity. Four guiding principles are presented as action-oriented representations of the Four C's to which individuals may commit themselves. As with the core values, the principles have cumulative outcomes and are meant to be implemented as such; curiosity feeds into courage, courage and connection have a mutually dependent relationship, and connection feeds into collaboration.

Principle 1. Practice and apply a curiosity mindset

This principle asks that we become mindful of our curiosities, and commit to applying curiosity in our daily lives and interactions with others. We can promote curiosity by seeking experiences of wonder and awe. Together, these emotions inspire us to become aware of the vastness of our world as well as our interconnectivity within it (Brown, 2021). Specifically, wonder inspires a desire for inquiry, observation, and learning, while awe inspires humility and a sense of unity by prompting us to acknowledge and appreciate the world around us, and the people in it.

In the context of our interactions, curiosity may mean letting go of our tendencies to be defensive when faced with alternate perspectives, and instead be inquisitive (Van Bavel & Packer, 2021). Inversely, it encourages us to at times accept the risks of nonconformity in favor of strengthening our initiatives by promoting innovation and creativity. In the context of ourselves, curiosity may involve engaging in metacognitive practices that allow us to question the origins of our own perspectives and processes (McRaney, 2021). In the context of our quest for knowledge, we may adhere to the first rule of the reality-based community which is a commitment to pluralism and the acknowledgment of our susceptibility to failure, mistakes, and inaccuracies, as well as the susceptibility of others (Rauch, 2021).

Principle 2. Cultivate courage and vulnerability

Courage is our ability to express our authentic selves and is measured by our ability to be vulnerable (Brown, 2020). Vulnerability is defined as “uncertainty, risk, and emotional exposure” (Brown, 2021), and it is “the core, the heart, the center, of meaningful human experiences” (Brown, 2012). Engaging wholly in vulnerability asks that we do so reflexively (internally) and interpersonally (externally). Understanding the internal and external interactions of our human functions provides valuable insight about ourselves, which connects us to our own experiences and enables connection with others (Brown, 2021). It should be clarified that vulnerability does not entail sharing our experiences with anyone. It is reserved for those with whom trust has been established.

Reflexive vulnerability is critical because, in order to facilitate outward communications and expressions, we must establish an understanding of our internal processes. We must know how to name and communicate our individual experiences—in other words, emotional literacy. Emotional literacy refers to our ability to identify and regulate our emotions and to identify and empathize with the emotions of others in a way that contributes to our own well-being, the well-being of others, and the quality of our interactions (Steiner, 2003). Marc Brackett, a research psychologist has developed with his team a framework called RULER (2019) which comprehensively describes the five skills required for emotional literacy:

Recognizing—Recognize our emotions and those of others;

Understanding—Understand the experience and where it might be coming from;

Labeling—Label the emotions with higher precision;

Expressing—Express the emotions appropriately according to the context;

Regulating—Regulate the emotions with strategies to help manage our own and those of others.

In the context of government organizations, vulnerability may be equated to transparency. While the intricacies of government transparency are outside the bounds of the research scope, the research did suggest several connections between the two. Transparency refers to the optimal amount of public information that is both accurate (truthful) and accessible (obtainable and comprehensible). Levels of transparency are one indicative factor of democracy because access to accurate information enables the public to make informed decisions and to keep our government accountable (Transparency International, 2022). Adapting Brown’s definition of vulnerability, we may consider transparency to be defined as ‘uncertainty, risk, and operational exposure’ (2021). Neither vulnerability nor transparency can predict the reaction of others, and where vulnerability exposes one to potential judgment, criticism, or manipulation, transparency elicits public feedback and retaliation. Both are indicators of strength—in one’s courage and self-awareness, or in the validity of established functions and operations. Most pertinently, both contribute to a foundation of trust and connection among collaborators and thus support our ability to coordinate toward effective decision-making. Both transparency and vulnerability may cultivate connection because they make available the necessary details and provide context to our collaborative spaces and the people within them. Where individual vulnerability illuminates our sense of shared humanity, institutional transparency may allow us to partake in shared purposes or objectives.

Principle 3. Recognize and pursue connection

True belonging enables connection, and means living in our authenticity (Brown, 2017). ‘Fitting in’ with a group requires conformity and altering ourselves to participate. We only fulfill our belonging needs when

we are accepted as our authentic selves. It is the connection that we innately crave; it is what gives us meaning and purpose (2012). Brown has uncovered four elements of true belonging (2017), the descriptions of which have been paraphrased below:

It’s easier to hate from afar than it is up close.

This means that when we distance ourselves from others, we lose sight of their humanity, the nuances of their experiences, the complexities that have shaped their lives. We must zoom in to find true belonging.

Confront nonsense, but maintain civility. Nonsense is the outcome of our pervasive dismissal of truth which emerges primarily from a place of incuriosity. Maintaining civility as we confront dismissals of truth means that we interpret expressions of nonsense with generosity, and without degrading our counterparts (e.g., weaponizing shame).

Maintain our belief in human connection. We have an unbreakable connection to ourselves and others, and so long as we believe this, it remains true. Distancing ourselves leaves us prone to hatred, dehumanization, and isolation.

Live amidst the plurality of our experience. True belonging relies on a paradox: to have both courage and vulnerability; to feel and express contradictory emotions.

Consequently, belonging cannot be achieved without trust in ourselves, in others, and in the institutions and information that allow us to operate in the world (2017). Trust is defined as the cognitive process of “choosing to risk making something you value vulnerable to another person’s actions” (Feltman, 2021). It begins with a commonality and encourages us to coordinate and collaborate with others. Inversely, distrust is the perception that the things we value are not safe with

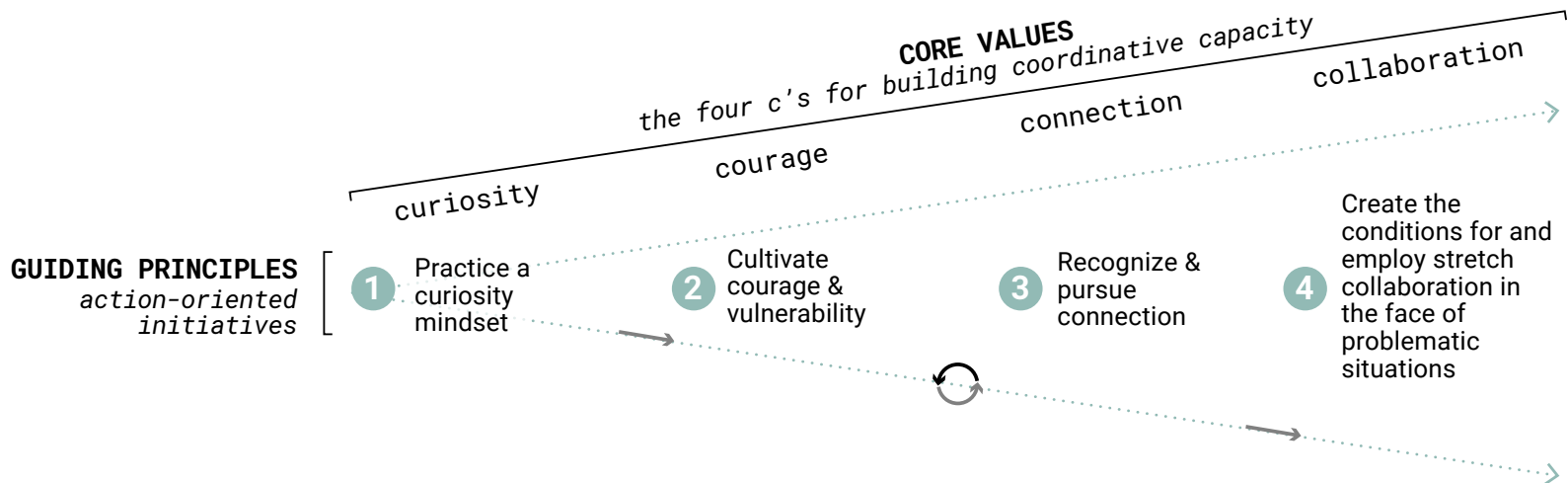


Figure 13 | Guiding principles for building societal coordinative capacity

others in a specific situation or any situation at all. It impedes our willingness or capability to coordinate and collaborate with others.

Trust can be built by committing ourselves to the traits defined by Brown's BRAVING framework (2017), paraphrased below:

Boundaries: explicitly expressed personal limitations of interaction we will accept and not accept.

Reliability: consistently adhering to commitments.

Accountability: a sense of responsibility for our own actions enacted by confronting mistakes, expressing regret, and altering behaviour accordingly to demonstrate awareness of our impact towards cultivating personal growth.

Vault: safeguarding information shared in confidentiality.

Integrity: electing to do the right, honourable thing aligned with one's values when called to do so.

Nonjudgment: expressions of personal experiences

do not prompt criticism or ridicule.

Generosity: interpreting the presence of others with kindness and a genuine attempt to understand.

Often, we associate trust with 'trust-building'. It implies that trust is a process rather than an isolated experience. It takes time to cultivate and requires several key commitments. We may enable trust in our systems and institutions by applying BRAVING in these contexts as well. These trait definitions have been slightly adapted from Brown to apply to an organizational context, particularly for government leaders and representatives.

Boundaries: explicitly expressed limitations of acceptable and non-acceptable interaction.

Reliability: a consistent adherence to commitments made.

Accountability: a sense of responsibility for our actions enacted by confronting mistakes, expressing regret, and altering behaviour accordingly to demonstrate awareness of our impact and a desire to learn and grow.

Vault: safeguarding private information.

Integrity: electing to do the right, honourable thing aligned with one's values when called to do so.

Nonjudgment: expressions of others do not prompt criticism or ridicule.

Generosity: interpreting and engaging with others with kindness and a genuine attempt to understand.

Principle 4. Create the conditions for and employ stretch collaboration in the face of problematic situations

Employing stretch collaboration requires adherence to the three dimensions of stretch. The first stretch corresponds with “how we relate to the people with whom we are collaborating—our team”, and it asks that we embrace both conflict and connection, and the existence of multiple holons¹ (Kahane, 2017). This is related to pluralism and involves exercising both power (asserting) and love (engaging), and knowing when to employ either. The second stretch corresponds with “how we advance the work of the team”, and involves dedicated experimentation to uncover what works best in that specific situation to move forward (Kahane, 2017). The third stretch corresponds with “how we participate—what role we play—in the situation we are trying to address”, and involves inserting ourselves into the situation wholeheartedly, as contributors to both the problem and the solution (Kahane, 2017). This third stretch challenges a phrase we so often hear associated with social justice initiatives: ‘if you’re not a part of the solution, you’re a part of the problem’. Kahane argues that this expression lacks a critical understanding that we cannot be part of a solution to a problem we believe we are not a part of.

A final consideration of collaboration is that often, our willingness to collaborate does not align with the other parties’ willingness to do so. Thus, we must create the conditions for collaboration to occur. Kahane (2017) proposes four possibilities in this scenario:

"Waiting for frustration, doubt, or desperation of the viability of the unilateral options";

"Increasing their frustration, doubt, or desperation of the viability of the unilateral options";

"Decreasing frustration, doubt, or desperation of the viability of the unilateral options";

"Increasing their excitement, curiosity, hope about the viability of collaborating".

1 *A holon is a term in the domain of philosophy coined by Arthur Koestler, and is defined as “something that is simultaneously a whole and a part” (Kahane, 2017). Systems are holons in that within them exist numerous wholes, but they are themselves also a whole nested within other larger wholes.*

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