

Beyond COVID: Reframing the Global Problematique with STiP (Systems Thinking in Practice)

Raymond L. Ison

IFSR (International Federation for Systems Research) & Applied Systems Thinking in Practice (ASTiP) Group, School of Engineering & Innovation, The Open University, Walton Hall, UK
ray.ison@ifsr.org (✉)

Abstract. Since 2019 humanity has been subjected to the perturbations of pandemic, economic disruption, war, civil unrest and changes in whole-Earth dynamics associated with a human-induced Anthropocene. Each perturbation is like a wave-front breaking on the shore of our historical ways of thinking and acting, increasingly unfit for our human circumstances. This challenge to humanity is not new. In 1970 the French term ‘problematique’ was coined to refer to a set of 49 interrelated global problems; the classic description of wicked and tame problems was published soon after, yet little progress has been made towards answering the question: what purposeful action will aid human flourishing, create and sustain a viable space for humanity, in our ongoing co-evolution with the Anthropocene-Biosphere? A case for innovation in our ways of knowing and doing is made based on arguments that our social world is constrained by: (i) explanations we accept that are no longer relevant to our circumstances; (ii) outdated historical institutions (in the institutional economics sense) that contribute as social technologies to a broader human created and ungoverned technosphere; (iii) inadequate theory-informed practices, or praxis, and (iv) governance-systems no longer adequate for purpose. Practitioners of knowledge science and systems science are urged to act reflexively to critically evaluate the traditions-of-understanding out of which they think and act.

Keywords: Cybersystemics, governance systems, reframing and framing, critical social learning system

1. Introduction

We live in a period new to human history, the Anthropocene-world. From late 2019 humanity has been subjected to the perturbations of pandemic, economic disruption, war, civil unrest and changes in whole-Earth dynamics associated with a human-induced Anthropocene (Crutzen and Stoermer 2000, Ison 2016). These perturbations are like wave-fronts breaking on the shore of our historical ways of thinking and acting, buffered only by our historically derived institutions (norms, rules) and the governance systems we have invented. Collectively, we must take seriously the question:

what purposeful action will aid human flourishing, create and sustain a viable space for humanity, in our ongoing co-evolution with the Anthropocene-Biosphere?

Others have articulated similar concerns in the past and faced inaction. Turkish-American cybernetician, Hasan Özbekhan (1970), introduced the ‘global problematique’ in a report to the Club of Rome, ‘The Predicament of Mankind,’ to refer to the ‘bundle of problems’ confronting humanity at that time (see Khayame, Collins and Ison 2021). The Özbekhan Report said that these problems

could not be solved:

- within electoral cycles because of their long-term characteristics;
- within individual countries because of their global scale;
- separately, because they constitute an interacting 'clusters of problems'.

The 'problematique' thus sums up an inextricable net of long-term and global scale problems which has grown larger and more complex, expanding at a rate greater than our human capacity to formulate effective responses, responses that constitute a viable trajectory of human co-evolution with the biosphere.

Özbekhan's coining of the French term 'problematique' to refer to a set of 49 inter-related global problems, preceded [Rittel and Weber's \(1973\)](#) classic description of wicked and tame problems, but arose from similar experiences within common intellectual milieus. Importantly though, as outlined by [Khayame, Collins and Ison \(2021\)](#) 'when he uses the French term "problématique" for the first time in the history of Anglo-Saxon traditions of cybernetics and systems' his use of 'problématique' does not only mean seeing a wicked problem, it also entails experiencing an emotion of engaging in an inquiry that can embrace complexity. In other words, the idea of problématique frames thinking in terms of improving a complex situation (rather than solving a simple problem), and triggers an intention to learn about how to improve it. Özbekhan proposed the problématique as an antidote to '...the all-pervasive analytic or positivistic methodologies which, by shaping our minds as well as our sensibilities, have enabled us to do what we have done' .

In this paper a case for innovation in our ways of knowing and doing is made based on a claim that the social world we inhabit is severely constrained by:

- explanations we accept that are no longer relevant to our circumstances;
- outdated historical institutions (in the institutional economics sense) that contribute as social technologies to a broader human created and ungoverned technosphere;
- inadequate theory-informed practices, or praxis, and
- governance systems no longer adequate for purpose.

Practitioners of knowledge science and systems science are urged to reflexively consider the traditions of understanding out of which they think and act. Members of the wider knowledge science and systems science community are invited to consider what actions can be taken within and by the cybersystemic 'community', a community with the capabilities to put systems thinking into practice.

2. Framing and Reframing Choices

Terms like 'problematique', wicked and tame problems, complex adaptive systems, social-ecological systems and the like, are all neologisms invented to facilitate our conceiving of particular phenomena in the world. In other words, they are human inventions as is the term 'ecosystem' ([Tansley 1935](#)), formulated to aid human ways of knowing about the world. Unfortunately, as [Ison, Collins and Wallis \(2014\)](#) explore, the practical implications of what we humans do when we invent and use terms such as these is that they be-

come reified as 'things in the world' rather than conceptual devices with the possibility to both reveal and conceal (McClintock, Ison and Armson 2004) i.e. to aid knowing as well as not-knowing. These neologisms through their reification and use by practitioners frame the ways in which we engage with the world because language operates like a mediating social-technology (Ison 2017b). Hence, as Lakoff (2010) notes: "all thinking and talking involves 'framing'. And since frames come in systems, a single word typically activates not only its defining frame, but also much of the system its defining frame is in." In attempting to innovate, to change our relationships within, and to, the world we have to take responsibility for our framing choices.

The remainder of the paper draws out the framing and reframing constraints and possibilities around three phenomena: (i) our current human situation; (ii) how we understand what it is to be a human; and (iii) the implications of the distinctions between knowledge and knowing, distinctions important to the practices and ethics of being a researcher. These are then related to what are sometimes called problem structuring methods, and the case for collaborative action within the broader cybersystemic community.

2.1 Our Human Situation: the Biosphere and Technosphere

The term 'biosphere' comes from the Greek for "life" and "sphere", also known as the ecosphere (from Greek οἶκος "environment"). It is "the worldwide sum of all ecosystems". It can also be termed the zone of life on Earth, a closed system (apart from solar and cosmic ra-

diation and heat from the interior of the Earth), and largely self-regulating.

The Anthropocene is a term formulated by earth scientists Crutzen and Stoermer (2000) to designate a new geological era in which human influences are so great that they are affecting 'whole Earth dynamics' through a range of biophysical and social processes. Human impacts on the Earth include:

- Erosion and sediment transport associated with a variety of anthropogenic processes, including colonisation, agriculture, urbanisation and global warming
- Changes in the chemical composition of the atmosphere, oceans and soils, with significant anthropogenic perturbations of the cycles of elements such as carbon, nitrogen, phosphorus and various metals
- Environmental conditions generated by these perturbations [including] global warming, ocean acidification and spreading oceanic 'dead zones'
- Degradation of the biosphere both on land and in the sea, as a result of habitat loss, predation, species invasions and the physical and chemical changes noted above

Homo sapiens has now become a major agent in shaping the circumstances of its own existence. Acceptance of the explanations that make the case for the Anthropocene – including human-induced climate change – also means accepting that we are in a period new in human history. This is the issue of our time, perhaps of all times, and thus the greatest challenge to all human endeavour.

The *technosphere* refers to all the human-produced biomass which now litters the sur-

face of Earth and is being propelled by humans into space; it has an enormous mass of about 30 trillion tons (University of Leicester 2016) and comprises all the structures, products and processes that humans have constructed in their living on the planet - from cement, bitumen, houses, factories and farms to computer systems, smartphones and CDs, to the waste in landfills and spoil heaps...vaccines, plastics...the list goes on (Zalasiewicz et al 2017, Ison and Straw 2020).

In Ison and Straw (2020) a boundary-expansion is proposed and used as a means to better understand and act with the techosphere as a 'human constructed system'. This expansion, to admit what Ison (2017b) calls social technologies, enables the mediating properties of technology, both artifactual (e.g. roads) and social (e.g. universities) to be drawn into consideration as a key, if not the key, to enhancing human-biosphere relations into the future. The example of the contemporary university exemplifies how ways of knowing, and thus, acting undermine attempts to more effectively govern in an Anthropocene-world (Ison 1999, Boulton and Lucas 2008, Sterling Jones and Selby 2010, Sterling 2019, Sterling and Martin 2019). It can be argued that the current organization called the 'university' with its constituent institutions (e.g. disciplines; projects; research rankings etc) is poorly equipped to foster the ways of thinking and acting needed for responding to the global problematique. Some of the systemic failings include: perpetuation of disciplinary silos; inadequate institutions to foster inter- and trans-disciplinarity (Ison 2017a); inadequate problem/opportunity framing; unacknowledged

epistemological tyranny - a form of epistemological injustice (Fricker 2007) played out in paper refereeing, project reviews and evaluations and promotion practices and over adherence to the linear, first-order, tradition of knowledge production and transfer which infects teaching and research (Ison and Russell 2000, Ison et al 1996). Wolff (2018) in his article "Britain's bullied universities should be speaking truth to power" raises interesting points about New Zealand's Education Act... 'that...gives universities a statutory duty to be "the critic and conscience of society"'. This is a much needed re-statement of university purpose. However, the transformative changes required will be a challenge when NZ universities, like all higher education institutions, are part of a global and hegemonic model. Wolff (2018) offers a critique of academic practice, implying that more than institutional innovation is needed. In critiques of this type it would be good to see a refocus on praxis, a shift from the abstract and disembodied to embodied, situated and context-sensitive praxis which is realized through self-organization, co-design and deliberative processes building on much deeper understandings of past R&D success, failures and systemic affordances (Ison and Straw 2020).

2.2 Our Human Situation: Governance and Governing

Governance can be framed in diverse ways but most agree that governance is different to government; it can also be understood as the activity, or practice, of governing. From a cybernetic and 'complex systems' (hereafter cybersystemic) theoretical perspective, gover-

nance can only operate in the presence of, and through responses to, feedback in relation to social purpose (Ison and Straw 2020). Ampere (1834) drew on the Greek verbs for steering, *kybernao* meaning 'I steer' and *kybernan* meaning 'to steer' (i.e., the infinitive form) to formulate the science of civil government (Tsien 1954)¹. From these roots Wiener (1948) formulated the term cybernetics, naming a field of study, which turned 'steering' into the science of steering, and, unfortunately, through this labelling created a noun rather than a verb (i.e., practice) (Ison, Alexandra and Wallis 2018).

Human invented governance systems (comprising institutions, organizations and practices) are no longer adequate to respond to the Anthropocene-world we have created (Figure 1) because after 52 years our governance systems have not yet enabled an adequate response to the 'global problematique'.

For the purposes of driving governance innovations, and new practices that realize more effective governing, Ison and Straw (2020) reframe the 'biosphere' so as to abstract (remove) human beings from the account. They recognise this is a 'slight of hand', because humans are inextricably part of the biosphere, part of 'nature', and will remain so unless as a species we go extinct. But if we want to innovate, or re-conceptualise, the human activity of governing-on-going-change systemically then it makes sense to speak of two systems – a social system and a biophysical system in mutually influencing co-evolution – an unfolding of structural coupling (Maturana and Varela 1998). In this framing, the state, law, civil society and the private sector/media and the un-

derstandings and practices that maintain them are all sub-systems in a social system. Human viability and our responsibility to other species (biodiversity conservation) is thus a product of the qualities realised by governing this co-evolutionary dynamic (Figure 2). The challenge humanity faces is whether our capacity for purposeful activity can be harnessed to chart a viable co-evolutionary trajectory.

This double-reframing enables consideration of the 'natural cycles' of water, carbon, nitrogen, phosphorus, oxygen and the like, as well as the dynamics of other non-human species with which humans are in constant interaction as well as the feedback dynamics (both positive and negative feedback) between the 'two systems'. The impact of humans, the human condition of living in language and human development and use of technologies, offers a rationale for the distinctions made. It also holds humans responsible for the state of the biosphere and thus the possibilities of our own on-going viability (even if distribution of this responsibility has been, and remains, inequitable).

Ison and Straw (2020) argue the case that contemporary governance systems (Figure 1(a)) are no longer fit for purpose because the system elements, institutions, organizations and practices, were developed before:

- the rise of multinationals bigger than 70% of nation states
- invention of technologies that enable global connectivity, and a 24-hour news, or surveillance, cycle
- awareness of human responsibility for the Technosphere
- awareness/acceptance that we humans

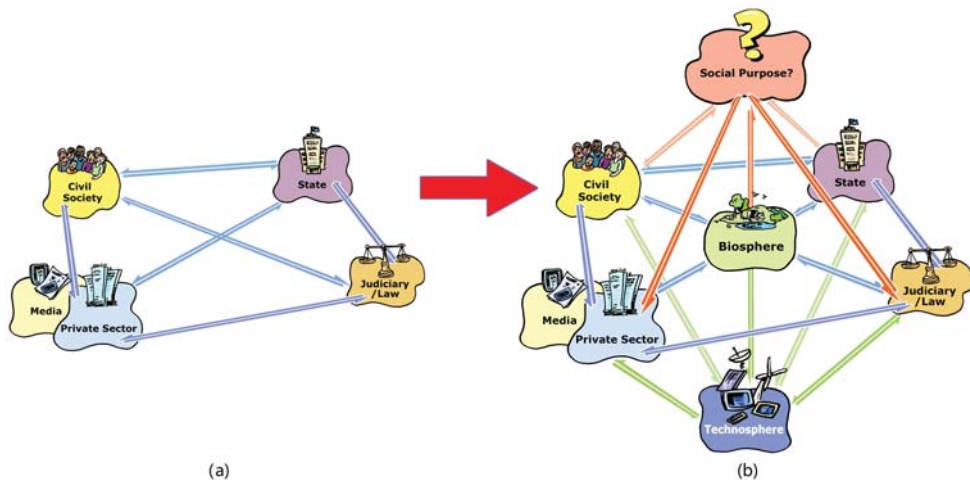


Figure 1 A Necessary Transformation: Moving from Now (a) towards a Viable Future for Humanity by Inventing a Systemic Governance “Diamond” Fit for the Anthropocene (b) (Source: Ison and Straw (2020))



Figure 2 A Cybersystemic Framing for Governing the Anthropocene-Biosphere based on the Concepts of Structural Coupling and Co-evolutionary Dynamics between Two Systems (From Ison and Straw (2020))

have created the Anthropocene

These authors go on to make the case for adding three new elements (or subsystems) to governance systems, new elements that address three critically failing relationships, those of (i) humans to the biosphere; (ii) humans with technology and (iii) our relationships with each other (and other species, like COVID-19) achieved by on-going negotiations

and conversations about social purpose (Figure 1(b)).

2.3 How We Understand What It Is to Be Human

Our institutionalised thinking about what it is to be human has ‘corrupted’ our governance systems. Three lines of evidence are used to substantiate this claim. The first arises from in-

sights derived from 50 years of designing and providing STiP (Systems Thinking in Practice) education at the UK's Open University (OU). It has led to an appreciation that we humans, endowed as we are with evolutionary and biological manners of living in systemic, relational dynamics, characteristics of all young mammals, are endowed with a systemic sensibility. About 30% of OU students retain their systemic sensibility and find systems study both liberating and reaffirming. In many cultures and especially schooling and university systems the manners of teaching and learning emphasize a systematic, linear mode of being which undermines systemic sensibilities apparent in early childhood, especially in play and the learning of language (Ison and Straw 2020).

Ecology is in many ways concerned with phenomena that can only be understood systemically. Unfortunately much ecology research frames humans as outside nature and demands evidence of causation base more on a systematic than a systemic sensibility. Western medical science has also been slow to appreciate whole body ecologies of humans, something that recent microbiome research now challenges (Cullen et al 2020). This research reveals the gut as a central 'player' in human cognition, a whole of body process and not the outmoded brain-body dualism. For gut functioning and thus cognition we are inextricably interdependent with other species – up to half of our DNA may be non-human DNA.

The third line of evidence comes from economic theory. According to Aldred (2019) much of economic theory is 'conceptually, ethically and practically flawed' because at the

heart of mainstream economics 'is the [mis-taken] assumption that the ideal choice, the perfectly rational choice is what *Homo economicus* would do'. In other words the human at the core of economic theory, *Homo economicus*, is a 'framing invention' designed to conserve the theory rather than an adequate conception of what it is to be human. A cybersystemic reframing of what it is to be human would emphasize the following imperatives as part of a project to recover and rebuild our human cyber-systemic sensibilities:

- Reframe *Homo economicus* as *Homo sapiens-amans, amans* – from the biology of love – in which in our living others arise as legitimate others, including other species and the biosphere itself (Maturana and Poerksen 2004, Bunnell 2008);
- Appreciate and engage in authentic conversation (Krippendorff 2009) built on dialogue (Christakis 2004);
- Understand the theoretical entailments of the major metaphors of communication and appreciate that the dance-ritual metaphor (Lakoff and Johnson 1980, Krippendorff 1993) is the only metaphor aligning with a biological explanation of human communication;
- Recognise that cognition is relational, embodied and historically structure-determined – we each live our 'traditions of understanding out of which we think and act' (Maturana and Poerksen 2004, Russell and Ison 2000);
- Understand what it means to be social; social relations exist when a other arises as a legitimate other (Maturana and Poerksen 2004). Thus an economy is a per-

verse way of being social as compassion is displaced by competition and other distortions of capitalism.

2.4 Knowledge and Knowing

Universities, and practitioners in many academic fields, have become trapped in the limitations of the linear model of innovation which can be expressed in several forms: knowledge or technology transfer; knowledge extension and/or adoption; knowledge uptake etc. (See Ison and Russell 2000, Ison and Russell 2011). As outlined by Ison, Røling and Watson (2007) much policy development is also trapped by the limitations of the linear, hierarchical model i.e., name problem, apply fixed forms of knowledge to the problem, devise and 'roll-out' policy for adoption or implementation. Policies are often in the form of regulations, education or fiscal/market mechanisms. Rarely are monitoring and evaluation of the policy effectiveness undertaken i.e., there is often no inbuilt feedback, or if there is, the feedback is so attenuated as to apply to a situation (or problem framing) that no longer exists. Research is reported in Ison and Straw (2020) which differentiates between a DAD (decide, announce, defend) and an EDD (engage, deliberate, decide) approach to policy development. DAD is the classic approach of centralized, command and control models of enacting governance that is also embedded in the linear model. In contrast EDD approaches are open to local, contextual circumstances, a systemic approach to social learning (Colvin et al 2014).

The trap of systematic tool, technique or model/algorithm-led innovation is also widespread and equally problematic. It is claimed that much statistical and control-

theory knowledge is re-invented by artificial intelligence researchers because a large number of computer scientists lack access to knowledge from other disciplines, or because of the absence of practices that create joint knowing processes. I would claim that many failings can be accounted for by the limited appreciation on the part of STEM scholars of the biological basis of human communication and how social change happens in ways that are ethically defensible. There is also a limited understanding, which can be drawn from sociology and philosophy of technology studies, of the 'systemic dance' between humans and technology. To focus only on the hammer (a tool or technology) and not the hammerer, hammered, hammering relationship as part of a situated practice exemplifies systemic failure on the part of scholars, innovators and regulators.

Following from insights of Humberto Maturana, it is also possible to see that language can be framed as a social technology which uses us; in different languages we become different beings and relate to our worlds differently. Social media and other technologies driven by algorithms also use us: we lose human agency; we lose our openness to situated ways of knowing; new 'truths' are constructed which become socialised explanations. There are more consequences: Goodman (2022) argues that we humans:

'are coalescing into like-minded groups in an age when we are all connected to the internet. Precisely when we seem most connected, we are most distant; precisely when we have all the tools to free ourselves and gain exposure to the

wider world, we find ourselves imprisoned and disconnected. A new economy, equipped with new technology, has created a very old politics. Tribal politics.'

His antidote to this systemic problem, yet another manifestation of the 'global problematique', is to seek actions that are localised but widely distributed, that tip the current balance by changing the nature of the relationships that technology mediates, and by using technology itself, to curtail our own worst instincts:

'If technology is our master, it dilutes our connections, erases our free time, and pulverizes our learning skills. But if technology is our servant, it deepens our connections, frees up time, and broadens our minds. All three connections can suffer from an unhealthy relationship with technology, and all three can gain from a healthy relationship with the same technology.'

Such a change has to be purposeful and not accidental and is thus beholden on scholars and researchers in the knowledge sciences'. A key question becomes will technology serve creative coevolution through systemic governance or be used for social control / manipulation?

3. Problem Structuring Methods and Systems Methodologies toward Wicked Problems

Despite the potential traps arising from the non-reflexive use of neologisms (e.g. reification) their invention and use can be highly

useful as framing devices for situations that may be of concern. For example, what do these issues have in common: COVID-19; climate change; obesity; indigenous disadvantage; land degradation; river catchment managing; transitioning towards water sensitive cities? These are all examples of on-going public policy failure within Australia, and in other parts of the world as well (APSC 2007, Ison and Schindwein 2021)? Why does public policy in regard to these issues continue to fail? Because of framing failure, a failure to frame these situations as 'wicked problems', for example, and the continual pursuit of policy-driven practices that treat such situations as if they were tame, or seek to prematurely 'tame' a problem, a problem that may be contested and open to reframing when multiple, partial perspectives are brought into the framing process. Not being aware of, or not using appropriately, the distinction 'wicked/tame' problem is framing failure which then institutionalizes praxis failure. This is an insidious, widespread failure in the inner workings of our governance systems (Ison and Straw 2020). It also arises because of lack of awareness of the distinctions between engaging with situations systemically (i.e., holistically, relationally) and systematically (relying on the mainstream, linear cause and effect paradigm) and how to deploy these concepts in practice as a duality (Figure 3).

As argued by Ison and Straw (2020) many country and professional responses to COVID-19 ignored the sensitivity of initial starting conditions in pursuing a purposeful response i.e., they failed to start out systemically, to be genuinely open to their circumstances, and respond accordingly knowing what it means for

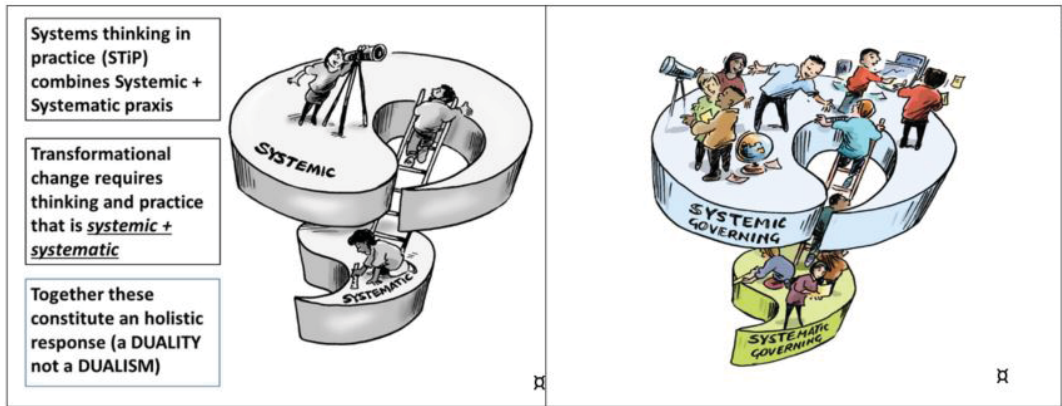


Figure 3 Distinctions between Systemic and Systematic Thinking and Practice, Including Governing Practice Framed as a Duality – as Two Approaches that Together Give Rise to a Unity in Praxis (Source: Adapted from Ison and Straw (2020))

two species (humans and a virus) to co-evolve. This can also be said to be a failure in the use of appropriate problem-structuring-methods, the embedding of modelling in a linear-model of change i.e., predict, report, decide policy. Ison (2017b) argues the need to be open to situations, especially those characterised by complexity, uncertainty, connectivity and contestation and employ systemic approaches like systemic inquiry or co-inquiry (Foster et al 2019). Inquiry-based approaches which assume no certainty in advance create an openness to learning about the circumstances where something is at issue, i.e., to starting out systemically rather than systematically which is different to what a 'project' has become.

4. Conclusions and Invitation

Özbekhan (1970) argued that our human 'achievement has, in some unforeseen (perhaps unforeseeable) manner, failed to satisfy those other requirements that would have permitted us to evolve in ways that, for want of a better word, we shall henceforth call "balanced".' Little has happened since to convey confidence that things have changed for the

better. After 52 years our governance systems have not enabled responses to the 'global problematique' that make a difference ... aware of, and responsible for, what we do when we do what we do.

The cybersystemic community has to take seriously how their understandings and practices can add social value in our current circumstances. There is a strong argument for the community (those who participate in a cybersystemic conversation) to work towards becoming a critical social learning system. Following Bawden (2010), this opportunity can be understood as a collection of organisations (with 'members') who agree to act together as a coherent group of people who are prepared to 'collectively learn their way through' an issue that they all agree is problematic in some way or another to them all. There is no recipe for the way ahead – hence it is useful to:

- frame any purposeful endeavour as a systemic co-inquiry
- invest in situation framing and deframing methods and cybersystems methodologies – use these to deframe and re-

frame key concepts and understandings (as described above)

- collectively build a praxis for engaging in (managing and governing) situations usefully framed as wicked
- know and articulate your theory of change – ask: is yours ethically defensible?
- take responsibility for your own practice in cybersystemic terms (Figure 4)

COVID-19 and human-induced climate change are both driven by the biology and ecology of human co-evolution, one with a virus the other an inhospitable biosphere brought about by human-induced feedback dynamics associated with carbon pollution. But, as [Meadows \(1997\)](#) argued in her ‘places to intervene in a system’ important though feedback processes are, more leverage can be gained by attention to the rules of the system (i.e., institutions), the power of self-organisation, the purpose of the system and the mindset or paradigm out of which purpose, rules, feedback and structure arise. An Anthropocene framing of our current circumstances invites reflection on all of these issues ([Khayame, Collins and Ison 2021](#)).

The challenge we have is how we respond purposefully through our future governing praxis. In 2008 Hu Jintao, President of China, said to Qian Xuesen, a leader in Chinese cyber-systemic research and development:

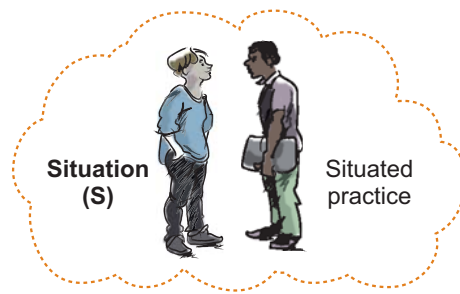
‘You have made outstanding scientific achievements. I have benefited a lot from your works. I’ll give you two examples. One is your systems engineering theory. When

I was studying in the Central Party School in the 1980s, your theory really impressed me. Now I still remember that you mentioned when dealing with complicated situation, we must start from an overall consideration and think about all aspects. Currently, we are advocating scientific development, which also fits your theory’².

This is a generous acknowledgement. Investment in systems approaches in China have also expanded since this time ([Gu 2020](#)). However, if said today by a leader involved in governance arrangements I would hope for some fresh framings to be added to Hu Jintao’s words e.g., complex, not complicated; evidencing an awareness that different perspective are needed to start out holistically i.e., to gain an overall consideration, and admitting a range of perspectives into the question of what is, or is not, scientific development.

Cybernetician [Bateson \(1996\)](#) observed that ‘the important question about history is: Has the bias or setting been changed? The episodic working out of events under a single stationary setting is really trivial.’ Thus, the question of whether the mainstream, systematic paradigm can be overcome and subsumed into a functional duality with the systemic is a question of changing the settings. Bateson had great hope for cybernetics: ‘cybernetics is, at any rate, a contribution to change—not simply a change in attitude, but even a change in the understanding of what an attitude is.’ This exemplifies the form of second-order change that will be needed.

In the circumstances as outlined here, what



(i) all practice (doing) is situated and embodied

- (ii) all observations require a particular observer
- (iii) everything said is said by someone to someone (we live in language, in its broadest sense)
- (iv) all knowing is doing
- (v) all being, knowing and doing is relational (all is relational)
- (vii) institutions and technologies mediate practice
- (viii) we humans live with a desire for explanation - science is a practice which realizes scientific explanations
- (ix) a human with freedom is a social myth based on inadequate framing choices e.g. *Homo economicus*

Figure 4 Nine Key Elements in a **Systems Praxeology** – Key Considerations for Being Ethical and Responsible in What Practitioners Do When They Act with Recovered Systemic Sensibilities as a STP (Systems Thinking Practitioner). (Source: Reynolds and Ison (2022))

actions can be taken within the cybersystemic 'community' to enable greater solidarity based on mutual appreciation and respect for differences-that-make-a-difference as a sought-after contribution to beneficial transformative action? In 1966 Bateson was himself insightful as well as prophetic; he said:

'I submit to you that what is wrong with the international field is that the rules need changing. The question is not what is the best thing to do within the rules as they are at the moment. The question is how can we get away from the rules within which we have been operating for the last ten or twenty years, or since the Treaty of Ver-

sailles [1918]. The problem is to change the rules, and insofar as we let our cybernetic inventions - the computers - lead us into more and more rigid situations, we shall in fact be maltreating and abusing the first hopeful advance since 1918.'

Unfortunately the rules he spoke about, those operating when Özbekhan (1970) delivered his report on the 'global problematique' have remained largely the same.

I finish with a question and invitation. What role can the IFSR, an organisation of organisations concerned with the doing of cybersystemics, play in enabling the emergence of a meta-dialogue with impact that contributes to ameliorating the 'global problematique' i.e., to

fostering and facilitating emergence in understanding and action that is greater than the parts (individual organisations)?

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Data Availability

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

Endnotes

¹ Also known as Qian Xuesen after his return from the USA to China.

² In Systems Science in China, Presentation by Lei GUO taken from CCTV News, Jan. 2008 - see <https://www.jst.go.jp/crds/sympo/20140221/pdf/Guo.pdf>. Accessed 25th September 2022. The English version of Qian Xuesen was H.S. Tsien (1911.12.11-2009.10.31).

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Ray Ison (BScAgr, Univ. Sydney, PhD, Univ. Queensland) is professor of systems at the UK Open University (OU). Within the **Systems Thinking in Practice (STiP)** program he is involved in co-authoring and presenting Post-Graduate modules (e.g., 'Managing Change with Systems Thinking in Practice' and 'Evidencing Systems Thinking in Practice') as part of the OUs MSc and Systems Thinking Practitioner Apprenticeship awards. He has led a range of major research, scholarship and teaching programs and projects as part of the **Applied Systems Thinking in Practice (ASTiP) Group**. He is widely recognised for his work on systems praxeology within rural development, sustainability management, systemic governance and the design and enactment of learning systems, as evidenced in an **extensive number of publications** (e.g. 'The Hidden Power of Systems Thinking. Governance in a Climate Emergency'). He is the current President of the IFSR (International Federation for Systems Research); has served as President of ISSS (**International Society for the Systems Sciences**) and as a Trustee of the American Society of Cybernetics. In 2022 he was given a Lifetime Achievement Award, by the Systems Society of India 'for contributions to the transformation of society with a systems approach'.