

Introduction to the Special Issue on “Exploring Paths to a Viable Future”

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This Special Issue is focused on “Exploring paths to a viable future: obstacles and opportunities; requirements and strategies”. In our invitation for submissions we said:

“Today we find ourselves at a difficult cross-road: although we know that business as usual is unsustainable, the path to a viable future is not clear.... This call for papers asks for articles, reports and essays exploring the enormous challenge of how the global political economy can be rapidly transformed into a sustainable system.”

The current approach to major global issues—such as the interconnected problems of climate, water, food and energy—represents a massive failure to understand and manage critical risks. For example, although there is an international consensus that average global temperatures should not be allowed to increase more than 2°C, no practical plans have been made for staying within this limit (Heinberg, 2015). Moreover, 2°C is hardly a safe threshold—it is considered the point at which there is a 50% chance of dangerous outcomes (Anderson & Bows, 2011).

Almost no-one would take a flight that had a 1% chance of having a dangerous outcome, let alone a 50% chance. Nevertheless, we—all of humanity—are taking this perilous trip because our leaders assure us (and we want to believe) that everything will work out fine.

We can do much better. Our species is very good at managing risks—when we put our minds to it (e.g. ISO, 2015). It is safe to fly because airplanes are designed, built, operated and maintained to strict standards that ensure that there is less than a 1 in 4 million chance of a major accident occurring per flight (IATA, 2014). We need to apply similar risk management principles (e.g. Smith & Simpson, 2010) to our greatest problems: preventing the catastrophic collapse of nature and society and creating a safe, sustainable future.

The first step is to determine unacceptable risks—the factors that could cause the failure of critical biophysical and social systems. Then we need to discover how the global system must be transformed to ensure safe outcomes. The next challenge is determining how it can be transformed. We then need to develop viable strategies—to decide how we will transform the global system. The final tasks will be building consensus around various strategies and implementing them.

Of course this is easier said than done. While a CEO can order a company to develop and implement a business plan, the Secretary-General of the United Nations has no power to order

countries to do anything. All international (and national) initiatives are complicated by the need to negotiate agreements among multiple stakeholders that often have differing values and competing interests.

These problems were illustrated by the 2015 climate negotiations (COP 21). Following the failure of the 2009 summit in Copenhagen, negotiators dropped efforts to get countries to commit to firm targets (Shukman, 2015). Countries were instead asked to agree to common aspirational goals and make voluntary commitments. The switch from a top-down to a bottom-up approach succeeded in developing wider international support at the expense of a weaker agreement.

On the positive side the long-term goals agreed to in Paris—to keep global temperatures from rising more than 1.5°- 2°C above pre-industrial averages—send a clear message to governments, businesses and investors that the trend to decarbonisation is irreversible (Taylor, 2015). On the negative side the goals are only aspirational. With current commitments temperatures will probably increase by 2°C as soon as 2040 (IEA, 2015).

George Monbiot summed up the outcome: “By comparison to what it could have been, it’s a miracle. By comparison to what it should have been, it’s a disaster...” (Monbiot, 2015)

So how do we solve this conundrum? It will not be possible to ensure a safe climate for future generations unless the global system can rapidly establish firm enforceable targets and deadlines. However, no single body can develop a global plan and compel others to support it; voluntary agreements must be negotiated at every step.

The solution to this problem (and to other complex global issues) may be to use a holistic systems approach that simultaneously combines top-down and bottom-up methods: e.g. clarifying the requirements of a sustainable global system and the transformational strategies needed to establish it while progressively broadening consensus and implementing constructive actions.

Creating a sustainable global political economy will require bold and large scale systemic changes. This includes the transformation of worldviews and values; individual behaviours; political, economic and educational systems; and technologies, to name only a few categories. There are literally thousands of areas in need of innovation and transformation. Fortunately the situation is far from hopeless: millions of people and projects are working on many of these problems right now.

This special issue represents a microcosm of this effort at change, covering a range of dimensions through education, global governance, trans-disciplinarity, leadership, interior transformation, tax and accounting, journalism, policy innovation, the social construction of work, transcending conflict dynamics, and even contemplations on the immanence of transformative potential in the cosmos. One of our authors, Marie-Laure Mimoun-Sorel, uses a North American legend that helps put these efforts into perspective. She writes:

“...one day, there was a huge forest fire. All the animals were terrified, screaming, and helplessly watching the impending disaster. But there was a tiny hummingbird busy flying from a small pond to the fire, each time fetching a few drops with its beak to throw on the flames. And then again and again. After a while, an old grouchy armadillo cried out: “tiny bird, don’t be a fool! It’s not with those minuscule drops of water that you are

*going to put out the fire and save us!” To which the hummingbird replied:
“I know, but I’m doing my part.””*

The sum of the hummingbird’s actions is far more than just its ‘instrumental’ effect. If this were the case then the creatures of the forest would have no chance. It is that the hummingbird inspires action. Others see the hummingbird’s actions, in defense of their commons, and also decide to act. Expressing a commitment to the commons, the hummingbird provides new pathways for others – the embodiment of a commons-planetary action logic (Bollier & Helfrich, 2012). As well, the power of experiments in change are not in what they achieve alone, but in the learning, new strategies, and potential breakthroughs that they engender, and which can be recursively adapted and redeveloped by many others. This special issue represents such hummingbirds, each doing their part in ‘commoning’ new ideas, strategies and prototypes. We start with the five article contributions ...

Theresa Grapentin and Sascha Dannenberg detail the case of sustainable development education (ESD) in Germany in “Learning for Transformation”. As they describe, major efforts were made in Germany during the UN Decade of Education for Sustainable Development (2005-2014) to develop ESD. They focus on learnings from that decade and especially the concept of *Gestaltungskompetenz*, the “skills and capabilities needed to decide and act in situations of uncertainty and complexity.”

Marie-Laure Mimoun-Sorel in “Adopting a Transdisciplinary Attitude in the Classroom, to Create a Viable Future” also discusses the great challenges in transforming an education system that compartmentalizes knowledge and which separates the personal from the planetary-relational. She shows how change is possible through adopting a transdisciplinary attitude, whereby teachers “extend their Duty of Care: care for individuals, communities and human species among other species” within their teaching and curriculum.

Chris Riedy in his article “Interior transformation on the pathway to a viable future” provides a rare but profound exploration on core narratives about the future and their transformative potential. Using a combination of developmental psychology and causal layered analysis, Riedy explores the variety of narratives, and queries the extent to which these narratives enable or hinder personal interior transformation, identifying ‘thriving Earth’ as a key.

Gerard Bruitzman and Robin Wood use a similar metaphor in their article “A ThriveAbility Scenario: Toward Thriving, Integrative Human Beings in a Thriving, Integrative, Global World”. In their article they use an eclectic mix of spiritual teachings, developmental psychology, shadow and disownment work, the ‘Conscious Leader Development Framework’ and the ‘ThriveAbility’ approach as the foundations for developing leadership for personal, inter-personal and global thriveability.

Rounding out the articles, Franz Josef Radermacher in “A Better Governance for a Better Future” provides clear foundations for considering the critical global governance challenges we face, and the design principles needed to squarely address our global challenges. He provides twelve interrelated elements of global governance for a sustainable future.

The essays in the special issue likewise represent hummingbirds, each doing their part. In “They are Wrong: The Work Does Not End, an Essay” Vuokko Jarva challenges the way in which work is framed as money producing activity, much often gendered and omitting unpaid labor, providing a reframed vision of work. Victor Motti in “Until 2100 there is a plenty of hope at the bottom of society and out there in the cosmos”, re-enforces the potential for transformation that is with us. In “A win-win strategy for fossil-fuel producers and environmentalists”, Graeme Taylor embodies this transformative spirit by considering how fossil fuel producers and environmentalists can co-create a win-win strategy that transcends the conflict dynamics now evident. Thomas Olsen takes on the deficiencies in national and corporate accounting and taxation in “A New Accounting and Taxation Paradigm”, formulating thinking by which pathology producing externalities can be effectively internalized.

And in “Futures Journalism, A Strategy to Shift Our Focus from Current Affairs to Long-Term Solutions” by Anna Simpson, new strategies for communicating sustainable futures are developed .

Finally, Laurent Bontoux, Daniel Bengtsson, Aaron Rosa and John A. Sweeney provide a groundbreaking example of a new methodology for policy development, linking serious gaming with eco-innovation policy pathways in “The JRC Scenario Exploration System - From Study to Serious Game”.

Each of the contributions is a hummingbird which is ‘doing its part’ in protecting and extending the common dimensions of what we all depend on for our survival and wellbeing, but as discussed earlier, they also do more than their part. One person or group’s courageous work can inspire countless others; and experiments and new designs cannot be measured by simply the change one experiment produces, but rather by the possibility of breakthroughs that bold experiments represent.

However, as the armadillo in the story points out, individual efforts are not enough to put out forest fires. They will not be effective unless they succeed in inspiring and mobilizing a collective response. Graeme Taylor examines this problem in “Concluding Comments: Developing a Strategy for Accelerating the Emergence of a Sustainable Global System”

There is indeed much hope in the cosmos, even as there is still much work to do.

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