



11 Essays on Societal Transformation: The Most Important Challenge Facing Humanity

In February 2021, the World Academy of Art and Science hosted an expert panel on societal transformation as part of its 60th anniversary conference. From this, a working group was formed for the purpose of identifying, developing, promoting and implementing practical, catalytic strategies for addressing major challenges and evolving human society into sustainable form. The societal transformation project was proposed and initiated by WAAS Associate Fellow Julene Siddique, a System Change and Arts expert. She is co-moderating the working group with WAAS Fellows Frank Dixon and Barry Gills.

Societal transformation has been a foundational theme of the Academy for many years. This project builds on WAAS' substantial body of work in the field. This paper provides a collection of short essays from group members about societal transformation concepts and strategies.

Evolving human society into sustainable form (societal transformation) is the meta challenge. All other issues are sub-elements of it. Many experts have addressed different aspects of societal transformation over the past 50 plus years. It is widely recognized that reductionism is a, if not the, foundational cause of humanity's unsustainability and major challenges. As WAAS founder Albert Einstein famously said, we must think at a higher level to solve our most complex challenges.

That higher level is whole systems thinking. It is based on the reality of humanity's interconnectedness with nature and each other. This higher level thinking illuminates societal interconnections, root causes, systemic barriers, key leverage points and optimal systemic solutions. The following essays emphasize interconnectedness and provide societal transformation theories and strategies based on it.

Humanity is facing a multifaceted planetary crisis. This has fueled incredible potential momentum for change. The human species has so greatly impacted the natural world that we are crossing possibly six of the nine planetary boundaries identified by Rockström (Rockström et. al. 2009; Steffen and Morgan 2021). The recent IPCC Sixth Assessment report alerts us to the profound need for wide ranging societal transformation at a global scale. The COVID-19 pandemic has highlighted long entrenched systemic flaws in national and global systems and brought social and economic inequalities into a sharper focus.

Societal transformation has occurred numerous times throughout global history. But the depth, breadth and rapidity of transformation we face today are unprecedented. To address this heightened challenge, the Societal Transformation Working Group brings together a diverse group of thinkers. They discuss the deep systemic change and societal transformation needed to protect humanity and all life on Earth.

The following collection of essays provides several perspectives from differing fields and expertise areas. A number of common themes emerge. These can be summarized as follows:

- a. Top-down approaches are not enough. National and international economic and governance strategies are not resolving major challenges in a timely manner. Climate change and many other problems are getting worse. Reductionistic economic and political systems are the root causes of major challenges. Improving them through top-down and bottom-up approaches is essential. Many of the authors discuss the need for fundamental structural and systemic change.
- b. Several authors discuss the essential role of arts and culture in societal transformation. Suggested approaches include: critically addressing destructive social narratives that perpetuate flawed systems and harmful consumerism; using arts and cultural action to mobilize social movements; developing culture and arts-based approaches for driving widespread consciousness and behavioral change; and employing dialogic processes and localized action.
- c. Fundamental change to economic and financial system is essential for genuine social transformation. To resolve socio-economic inequality and ecological decline, the authors discuss different aspects of system change in economics, redistribution of resources and new financial mechanisms.
- d. Deep systemic change of educational systems is essential. Long-term solutions seek to achieve a sustainable and truly prosperous society, for example, by ‘re-architecting knowledge’ and fostering new values and behaviors.

In line with the above themes, new ‘literacies’, skills and capacities are emerging that will facilitate a coherent and coordinated global movement for systemic change. These include ‘transformation literacy’, ‘structural literacy’, ‘collaboration literacy’ and ‘integral capacities’. The authors discuss these literacies and other tools needed to facilitate effective societal transformation.

In summary, the interconnected nature of global crises demands a new kind of thinking and action. To provide this, the authors discuss many aspects of whole system thinking and holistic worldviews, including aligning human systems and society with the laws of nature.

References

1. Rockström, J. & Steffen, W et al (2009) Planetary boundaries: Exploring the safe operating space for humanity. *Ecology and Society*, 14 (2), 32. doi: 10.5751/ES-03180-140232
2. Steffen, W & Morgan, J (2021) From the Paris agreement to the Anthropocene and planetary boundaries framework: An interview with Will Steffen. *Globalizations*, 1-3. doi: 10.1080/14747731.2021.1940070

Essays

The essays address many societal transformation issues, ranging from higher-level, whole system concepts and approaches to more specific transformation themes and strategies.

Essay 1: Frank Dixon – Global System Change: A Whole System Approach to Societal Transformation

Essay 2: Garry Jacobs – Process of Social Transformation

Essay 3: Mariana Bozesan – An Integral Approach to Social Transformation

Essay 4: Petra Kuenkel – Transformation Literacy as a Collective Stewardship Task

Essay 5: Piero Dominici – From Below: Roots and Grassroots of Societal Transformation, The Social Construction of Change

Essay 6: Thomas Reuter – Transformations to Sustainability: Why integrated social change requires a political process based on inclusive communication

Essay 7: Barry Gills and Hamed Hosseini – Transversalism and transformative praxes: Globalization from below

Essay 8: Alberto Zucconi – Effective tools for promoting change in complex and interrelated realities

Essay 9: Janani Ramanathan – Systemic Change through a new Paradigm in Global Education

Essay 10: Benno Werlen – What Constitutes Societal Transformation?

Essay 11: Jay Bragdon – The Emerging Economic Renaissance

An Integral Approach to Social Transformation

Mariana Bozesan

Co-Founder & President, AQAL Capital & AQAL Foundation;
Full Member, Club of Rome; Fellow, World Academy of Art & Science

1. Introduction

From conquering polio,^{*} malaria,[†] or HIV/AIDS,[‡] to the adoption of the Montreal Protocol to eliminate ozone depleting substances[§], the history of humanity is full of success stories for collective action. According to research by the Oxford-based Our World in Data organization,[¶] humanity is on average better off today than many decades ago. Despite the unprecedented population growth over the past century, we live during one of the most peaceful, most progressive, and stimulating eras in history. We are more apt to die from unhealthy lifestyle choices, suicide, or old age than from hunger, war, terrorist attacks, or transferrable illnesses. Since 1820, global poverty has been reduced from 94% to 9.6% in 2015, and global income has increased on average tenfold with falling global child mortality rates. Also, literacy has increased—from 12% in 1820 to 87% in 2014—and most countries are ruled by democratic governments. This progress would not have been possible without massive amounts of energy, economic globalization, and exponentially growing technologies, all of which must now become sustainable. This was all created by the collective application of human curiosity, innovation, creativity, a sense of wonder, and purpose. This should give us hope because creating better societies to ensure the future of life on Earth despite the grand global challenges can only occur if we believe it can be done. Positive motivation is important yet understanding the full picture including the factors hidden from view is the premise for any successful action.

To better understand how social transformation could be achieved within the context of planetary boundaries for many generations to come, let us take a closer look at the underlying factors influencing it through the lens of integral theory by Ken Wilber that has been successfully applied in more than 50 disciplines from medicine to economics, investing, and business. Explicating integral theory here would go beyond the scope of this paper, however, its roots are embedded in evolutionary theory and in the Platonic values, the True, the Good, and the Beautiful. Integral theory can help identify the missing pieces in the current paradigms that are failing us, and integrate all of reality, its exterior as well as interior dimensions, such as culture, emotions, and spirituality. It is a map that can help simplify and eventually navigate the complexity of reality while maintaining multiple world views and honoring the evolution of human consciousness from pre-modern to modern, postmodern, and post-postmodern structures of consciousness.

^{*} https://en.wikipedia.org/wiki/Polio_vaccine

[†] https://en.wikipedia.org/wiki/Malaria_vaccine

[‡] https://en.wikipedia.org/wiki/HIV_vaccine_development

[§] https://en.wikipedia.org/wiki/Montreal_Protocol

[¶] <https://ourworldindata.org/>

2. Inflationary Economics, Deflationary Technologies, & Social Manipulation

Nouriel Roubini warned about an impending collapse of the financial system long before the financial crisis of 2008.* Yet, we all know what happened then and during the COVID-19 pandemic making it obvious that our economic system in its current form would have to change to provide the necessary breeding ground for sustainable social transformation. Why? Because it is designed to allocate more money (quantitative easing) to an already bankrupted system that is based on debt versus real assets and one that is borrowing from future generations. Like cancer, the system must grow to prevent its own collapse. It is inflationary, it creates inequality, and is not sustainable long-term. It is hardly meeting the needs of the current generation and is compromising the ability of future generations to meet their own needs. The citizenry is losing trust in its government, a fact that leads to political and societal polarization across the globe.

Unfortunately, not only regular citizens will be affected, but the entire financial and economic system, said James Arbib and Tony Seba in their latest Rethink† report. They argue that a quickly growing global financial bubble around energy assets from conventional coal, gas, nuclear, and hydro power is imminent, and show that (1) achieving carbon neutrality more quickly and cheaply than expected is possible, (2) energy assets are severely mispriced, (3) fossil fuels, nuclear, and hydro power are no longer competitive and are doubly mispriced, (4) renewable energy sources have reached cost parity and are cheaper than non-renewable ones, and (5) governments must protect people, new companies, or industries from the financial risk of the conventional energy asset bubble.

At the same time, Silicon Valley technologists like Peter Diamandis insist that “tomorrow’s speed of change will make today look like we’re crawling” putting humanity at that ground-breaking point of technological evolution where its exponential growth is becoming explosive and massively disruptive.‡ Thus, sustainable social transformation can only occur if we quickly learn how to think, and most importantly to act, exponentially and globally, rather than previously in our history, locally and linearly. But that is easier said than done. While the complexity around us is accelerating making it virtually impossible to keep up with the storm of information, emails, explosion of technological advances, the price of technology and its application in every area of life from transportation to food, to education keeps tumbling too. Once an application or a gadget has been developed, the price of replicating it is virtually down to zero. A case in point is the smartphone. Before its creation, we had to pay separately for a camera, a GPS device, a computer to browse the internet, a recorder, or a dumb mobile phone, to name a few devices, all of which we now get as part of a relatively cheap smartphone. Thus, the technology explosion operates in a deflationary manner in the long run with one important caveat: its growth must occur sustainably and within planetary boundaries. This is currently not the case as demonstrated

* <https://nymag.com/realestate/features/21675/>

† <https://www.rethinkx.com/energy-lcoe>

‡ <https://tinyurl.com/rnbcc27>

by Sir Attenborough in the documentary “Breaking Boundaries”.^{*} If we want to ensure our future, we must go back to a safe planetary operating system. If climate emergency is not enough to threaten our very existence, we are also at war with sensemaking.

“How can capital abundance be leveraged to ensure the future of life within the context of deflationary technology, inflationary economics, and the grand global challenges including social transformation?”

3. At War with Sensemaking?

Climate change has become obvious to most critics, but what is rather hidden from view and plays a key role in social transformation, is the digital technology behind the current social media manipulations. According to former Google ethicist, Tristan Harris[†], the social media digital technology à la Facebook, Google, or TikTok, to name a few, has quickly become the most worrisome infrastructure of the 21st century. It is more intimately embedded in our minds and nervous systems than any previous infrastructure be it electricity, planes, cars, or printed media. In its current form, this unethical, unchecked digital infrastructure assaults the very foundations of our humanity. Individually and collectively, we no longer own the ability of sensemaking because we do not see the threats coming, we lack a good understanding of the underlying technology—mostly driven by unethical AI—and become the involuntary victims of its profit- or politically-oriented manipulations. These take place outside of existing democratic legislation, lead to unprecedented levels of addiction, depression, hate crimes, and act like a brain implant bypassing our explicit permission, volition, or approvals by accredited organizations that are supposed to protect us.

The Social Dilemma movie[‡] demonstrates eloquently how the lives of billions of people on social media are manipulated by (mostly young) AI programmers without a deep understanding of the long-term impact their AI code might have on the society at large. Daniel Schmachtenberger goes even farther and argues that this situation has turned into a World War III that is not fought kinetically but on digital platforms.[§]

4. There is Hope

On the climate emergency front comes hope, for example, from the European Commission[¶] that launched the European Green Deal. When completed and if implemented properly, this action plan can support the implementation of a sustainable finance model to

^{*} https://en.wikipedia.org/wiki/Breaking_Boundaries

[†] https://en.wikipedia.org/wiki/Tristan_Harris

[‡] <https://www.netflix.com>

[§] <https://aqalgroup.com/fighting-ww-iii/>

[¶] https://ec.europa.eu/info/publications/180308-action-plan-sustainable-growth_en

transform the economy of the European Union such that it can meet the goals of the Paris Accord and Agenda 2030 (SDGs) of the United Nations. The European Commission intends to achieve carbon neutrality by 2050 and has been joined by US President Biden's Green New Deal* and the Chinese government's 5-year plan aims to divest their investments from fossil fuels to green tech.†

These new green deals are providing the first regulatory and legislative steps for creating the economic foundation on which sustainable businesses can be built and societal transformations can occur.

5. From Capital Abundance to Social Transformation

The great advantage of both deflationary tech and inflationary economics is the availability of capital abundance starting with Venture Capital funding, Crowdfunding, or Sovereign Wealth Funds, to name a few. The only question is who gets the capital. VC funding has been a more traditional source of startup capital over the past five decades, helping to birth household names from Google, to Apple, and to Amazon, to name a few. Despite the pandemic, in 2020, U.S. venture capital investments reached the new staggering record of \$156 billion (or about \$428 million every day!), an increase from \$136.5 billion in 2019; in Asia, VC capital ended up at nearly \$80 billion, and European venture reached \$40 billion in the same period.‡ On the crowdfunding side we can witness a similar capital abundance which demonstrates that crowdfunding has the potential to further disrupt the investment industry in a meaningful way because it levels the playing field by bypassing antiquated start-up funding through bank loans by attracting small capital investments to projects, business, and other causes from many people via Internet platforms. They are projected to grow by \$124.35 billion during 2020-2024 with a CAGR of 18% in the same period.§

Mobile access is at the core of these developments with an estimated 80.9 percent of people having Internet access in developed economies in 2018 compared to 45.3 percent of persons living in developing markets. The global online access rate was 51.2 percent.¶ The significance of this connectivity from the economic let alone the social and cultural point of view is remarkable. Not only are there billions of additional minds and intelligences being added to the collective intelligence, but these minds have the potential to become both entrepreneurs providing new business ideas that seek funding online and to be also providers of cash/capital, in short, crowdfunders. This is not only true for the developed world but also for the emerging world. In 2013, the World Bank had estimated that the emerging world has the potential to leapfrog the developed world in crowdfunding, thanks to more than 344 million households that are able to financially invest via crowdfunding in community businesses.** By 2025 they should have the ability to deploy US\$96 billion per year in crowdfunding investments with China in the lead and accounting for US\$59 billion

* <https://joebiden.com/climate-plan/>

† <https://www.weforum.org/agenda/2021/03/china-green-tech-coal-five-year-plan-environment-climate-change/>

‡ <https://tinyurl.com/ydwdxwp5>

§ <https://tinyurl.com/z8c49wp6>

¶ <https://tinyurl.com/nt6wfvwx>

** <https://tinyurl.com/y5rekelz>

per annum. What does that mean? It means that somebody in one part of the world who has a great idea will get the capital she needs to start her company. That was never possible before. This is revolutionizing the start-up capital worldwide and could become a key vehicle to ensure the future of life on this planet, if guided in a sustainable manner. The same could hold true for another source of massive abundance of deployable capital, namely state-owned Sovereign Wealth Funds, which had held an estimated \$9.94 trillion in global assets under management at the end of 2020.*

“The future of life can only be ensured through a massive mindshift toward a level of consciousness that can induce significant social transformation and save humanity from extinction. We know what to do. Now, we must do what we know.”

The main question remains: How can capital abundance be leveraged to ensure the future of life within the context of deflationary technology, inflationary economics, and the grand global challenges including social transformation?

6. Job Creation Is at the Heart of Social Transformation

An empty stomach will not get us anywhere. So, we must leverage said abundance in technology, money, and human capital to make the transformation to a sustainable world feasible. James Arbib and Tony Seba assert in their paper entitled “Rethinking Humanity: Five Foundational Sector Disruptions, the lifecycle of Civilizations, and the Coming of Age of Freedom” that this decade is decisive for the future of humanity. They argue that disruption will unavoidably affect all major sectors of the global economy from information technology, food, energy, to transportation, and materials, whose costs are projected to fall by a 10x factor or more. The production processes are prone to become more efficient by a significant order of magnitude and use 90% less natural resources while generating between 10x-100x less waste. Arbib and Seba join the ranks of Jorgen Randers et al. (2018) and consider that the implementation of the UN SDGs within planetary boundaries by 2050 is within reach. If we fail, we must be ready to face the resulting collapse and descend into another dark age as previous civilizations. They propose (1) to acknowledge that we are at a breaking point without equilibrium and there is no going back (2) to brace for the impact caused by the breaking down of every major system and mass migration, all of which will be compounded by technological disruption (3) to beware of the cascading impact of further disruptions and the race to the top (4) to follow smaller communities and big cities such as Shanghai, Seattle, and Silicon Valley that will be more likely to succeed over big countries (5) that resiliency and robustness will win (6) to rethink old concepts like economies of scale and efficiency because they are not shock-absorbent (7) to apply existing technology and tools to solve the

* <https://tinyurl.com/5a44u7ru>

problems; to not waste time to develop new ones (8) to follow exponential thinkers because they are more likely to succeed than linear thinking forecasters.

Small to medium enterprises (SMEs) have a significant role to play in achieving these goals, because they represent a significant economic force globally—with a contribution of about 90% of businesses and more than 50% of employment worldwide, according to the World Bank.* Also, SMEs contribute up to 40% of national income (GDP) in virtually all economies. Independent from the massive capital abundance, SMEs have suffered the most since the financial crisis of 2008 for governmental stimulus packages rarely reached them due to bureaucratic hurdles and outdated measurements criteria. That must change if we want to succeed.

Exponentially growing technologies are deflationary and are thus shifting the inflationary world economy right under our eyes. As the new green deals are getting implemented and massive amounts of capital are becoming available, SMEs are best positioned to fulfill the requirements of systemic change. They are by nature more flexible and progressive than older and larger corporations and can enable accelerated job creation in the new green economy. They can avoid social polarization. They are attractive to investors but de-risking becomes key because the new regulation eliminates investors and entrepreneurs' previous dilemma in which they had to choose between profit and impact; between traditional, for-profit-only models on the one hand, and multiple-bottom-line structures with a positive social or environmental impact on the other. This leads to the next paradigm in investing, the Integral Investing framework. With the support of new green deal legislation, capital abundance, exponential tech know-how, and existing talent, we are best positioned to create the type of social transformation we all desire. If we only knew what the hidden manipulators are! That, we do not see coming.

7. Hidden Attractors in Plain View

Unfortunately, climate change is not the only existential threat to humanity and social transformation. After nuclear threat, unsafe AI poses a third significant threat, particularly if it evolves to superintelligence, a major challenge for which we are not ready. It is time we join the ranks of Elon Musk, Oxford professor Nick Bostrom, MIT's Max Tegmark, and the late Stephen Hawking, who deem AI more dangerous than nukes and call for the general adoption of the 23 Asilomar AI Principles to ensure the ethical application of AI.† We must awaken to the reality that our current digital infrastructure (hardware and software) must be regulated and evolve quickly to counteract the already existing monopolies of AI-driven private platforms that rule the social media and are undermining democratic institutions right under our noses. These platforms already have a life of their own, unmitigated by law and legislation, and have become massively pathological and manipulative with the sole intention to maximize profit at the expense of human development and global unity. The result is ongoing cultural wars and societal polarization that manifest as ongoing attacks on science and reason by the ignorant. They pose a present danger to cultural evolution,

* The World Bank SME Finance, 2020, <https://www.worldbank.org/en/topic/sme/finance>

† <https://futureoflife.org/>

social stability, and the future of consciousness. AI algorithms are data-hungry and depend on our data generosity because without data they cannot function. Their main purpose is to collect massive amounts of data to improve themselves, which in turn translates into higher revenues for their operatives. For example, nobody thought much about Google's vehicles driving through our streets and taking pictures of our houses, cars, or gardens. Without our consent, our data is available globally for everybody to access through Google maps. Before it became known that Facebook, to give another example, unlawfully sold millions of personal data sets to the Cambridge Analytica, hence enabling Russian hackers to target and significantly influence American voters during the 2016 election, few people took Facebook's AI algorithms seriously or thought them dangerous.* In fact, no one has offered me a share of the revenue derived from my own data, yet, although it would seem only fair to do so.

When I talk to people about their views about privacy, most say they have nothing to hide. But whistleblower Edward Snowden asks to think again: "saying that you don't care about privacy because you have nothing to hide is no different from saying that you don't care about freedom of speech because you have nothing to say." In other words, if we care about social transformation by preserving our democracies along with all our precious human rights—equality, freedom, and liberty—we must think again, and more profoundly. Why? Because our freedom is priceless, and it is certainly not up for grabs. I grew up in Romania under Ceausescu's dictatorship and felt first-hand what it means to have a Big Brother watching you all the time. We must take this very seriously. Organizations like Tristan Harris's Center for Humane Technology[†] or Daniel Schmachtenberger's Consilience Project[‡] were built to accelerate the development of social transformation literacy by counteracting manipulative social media companies. We would be well counseled to stay vigilant.

In the final analysis, the future of life can only be ensured through a massive mindshift toward a higher level of consciousness that can induce significant social transformation and save humanity from extinction. We know what to do. Now, we must do what we know.

Author Contact Information

Email: mbozesan@aqalcapital.com

* <https://tinyurl.com/y9rorxln>

† <https://www.humanetech.com/>

‡ <https://consilienceproject.org/>