

ADDRESSING THE CLIMATE CRISIS

with Networks of
the Willing
and Committed

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The climate science debate is over. Climate change will fundamentally alter life as we now know it and the window for slowing it down is closing. The issue must be the top priority for every sector of society.

In spite of 25 years of international efforts to make climate change a top priority, nations have failed to find solutions to reduce greenhouse gas emissions. In fact, the rate of emissions has increased. In the face of the growing crisis, citizens have used the internet to create hundreds of global solution networks focused on climate change to mobilize scientists, watchdogs, advocates, policy experts and delivery experts to address the problem.

These climate change networks are doing the best they can, but we recommend a “second generation” approach, a governance network that enables collaboration among hundreds of networks for the purpose of mobilizing public action to reduce greenhouse gas emissions. This requires a new governance model, leadership, a robust technical platform and the will to act now.



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Overview by Don Tapscott

In a 2008 landmark paper on the topic of the effects of atmospheric CO₂ NASA's Jim Hansen and his colleagues said:

If humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted, paleoclimate evidence and ongoing climate change suggest that CO₂ will need to be reduced from its current 385 ppm to at most 350 ppm, but likely less than that...If the present overshoot of this target CO₂ is not brief, there is a possibility of seeding irreversible catastrophic effects.¹

In addition to identifying the critical level of atmospheric CO₂ at 350 ppm, they also raised concern about the range of greenhouse gases that are impacting the environment, including methane coming from agriculture and waste management practices and thawing permafrost. Adding to the urgency of the CO₂ measurements was the concern expressed by NASA scientists about what they called "slow" climate feedback including ice sheet disintegration, migration of vegetation and releases of even more damaging greenhouse gases (GHGs) from soil, thawing tundra and the warming oceans, all of which are contributing to climate change at an increasing rate.

Five years later, in 2013, near the summit of Mauna Loa in Hawaii, carbon dioxide levels in the atmosphere reached 400 parts per million and are projected to continue to rise. The last 25 years of international and national efforts to elevate climate change to a top international priority have resulted in a failure to reduce or even significantly slow the rate of greenhouse gas emissions. These rates are projected to continue to rise toward a point from which the world may not be able to return.

The stakes in developing a new model are high and every sector of society, not only national governments, needs to be engaged. We need a mobilization of the resources of humanity, not dissimilar in scope to the two great world wars, but different in that we are all fighting for the same cause.

Already addressing this looming global emergency is a panoply of global solution networks (GSNs) focused on climate change. They represent governments, NGOs, citizen groups and academia, and each is working on the aspect of the problem that it can impact with its expertise and influence. This project, ably led by Dr. Edward Marshall, is among the first to set out to understand how this array of Internet-enabled networks can make a genuine difference. It looks at how citizens are using technology to mobilize scientists, watchdogs, advocates, policy experts and innovators to reduce GHG emissions. Networks like the Urban Climate Change Research Network, the Climate Reality Project, Climate-KIC, C40 Cities, and the National Oceanic and Atmospheric Administration's Digital Coast, for example, have significantly advanced the cause and made climate change an international priority. But as important and noble as these efforts are, they are not enough.



Given the small time window of 35 years to reduce CO₂ emissions by close to 80 percent by 2050, and our unsuccessful track record to date, it is time for a second-generation approach, a new way of thinking and acting to solve this crisis. It is time to launch a Global Climate Governance Network—a network of climate change GSN's. This meta-network will dramatically increase global collaboration among the hundreds of networks around the world, mobilize unprecedented public action, strengthen leadership capabilities and increase awareness of financial resources, best practices, and innovations required to reduce greenhouse gas emissions.

Government, industry, civil society and academia—each has an important role to play and each can make vital contributions to the climate challenge. A global Climate Governance Network is essential to bring greater coherence, shared purpose and dynamism to the world's effort to mobilize action at every level and in every sector of society.

“...the emergence of a digital network connecting the thoughts and feelings of most people in every country of the world... offers the greatest source of hope that the healthy functioning of democratic deliberation and collective decision making can be restored in time to reclaim humanity's capacity to reason together and chart a safe course into the future.”

*The Future:
Six Drivers of Global Change*
Former US Vice President
Al Gore



Introduction

Measurements of CO₂ have been taken at Mauna Loa since 1958, when they were recorded at 315 ppm, a significant rise from the early 20th century, when the average was 280 ppm.² Climate scientists tell us we may be approaching a tipping point past which reversing the progression of warming may not be possible. And the leading catastrophic impacts will result in far more severe consequences for the most vulnerable peoples, cities and nations. The United Nations Intergovernmental Panel on Climate Change (IPCC) released April 14, 2014 noted that:

Human influence on the climate system is clear. This is evident from the increasing greenhouse gas concentrations in the atmosphere, positive radiative forcing, observed warming, and understanding of the climate system.³

Eric Rignot, a climate scientist at the University of California at Irvine, in a paper soon to be published by Geophysical Research Letters, looked at 40 years of ground, air surveillance and satellite data and discovered that the huge West Antarctica ice sheets are melting at what he termed an “unstoppable” rate. It is estimated that the loss of the ice will result in 4-12 feet (1.2-3.6 meters) of global sea level rise, which is a bigger increase than the UN expert panel predicted in 2013. It may take 100 years, but the fact that this disintegration is considered irreversible should set off emergency alarms around the world.⁴

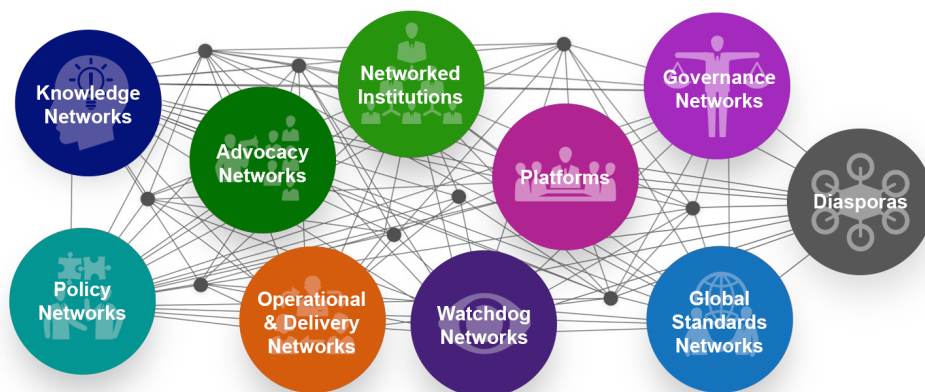
Since the Earth Summit in Rio de Janeiro in 1992, the international community has been gathering periodically in hope of coming to an agreement on a plan of action. The United Nations Framework Convention on Climate Change convenes these meetings, and in 1997 developed the Kyoto Protocol, which became the foundation for global action. In 2001, the United States pulled out of the accord, undermining the progress of the initiative. China, Canada, Australia, and lately India, raised additional concerns about commitments and pledges they were being asked to make. The result is that greenhouse gas emissions have continued to rise, reaching historic levels and accelerating with no end in sight. CO₂ alone is increasing by 2 ppm per year and more.

Ultimately, the failure to act collectively and globally, can be attributed to competing self-interests, nation-states jostling for power and position, powerful economic forces pushing and shoving to get a bigger piece of an ever-shrinking resource pie, and the apparent disregard for honoring agreements and commitments made before the community of nations.

The urgency for meaningful global action is real, and has led to the creation of what can be described as Global Solution Networks that are increasing awareness, sharing knowledge, science and best practices, mobilizing communities and citizens, advocating for policy initiatives, and implementing concrete actions. And they are actively engaged in adaptation and mitigation work.



Don Tapscott has developed a criteria and a taxonomy for these networks. To be considered a GSN, networks must have a diverse set of stakeholders, be focused on a global problem, be utilizing the power of the digital revolution and be self-organized in terms of governance. GSNs are not non-governmental organizations (NGOs), nor are they government entities. They are typically non-profit networks that have emerged from the commitment of their members to address a major global issue.⁵



Ten Types of Global Solution Networks

Five of the ten types of global solution networks play an especially valuable role in addressing climate change:

- **Knowledge Networks:** These are the educators and scientists who are focused on creating awareness, bringing climate science to life, convey new information, and publish
- **Watchdog Networks:** These networks offer new tools that help citizens observe the impact of climate change, enable the development of new insights, and connect the data to generate action.
- **Advocacy Networks:** Mobilizers of communities, these networks create enthusiasm for the work of other networks and organizations, provide training and capability development, and lead campaigns to encourage action.
- **Policy Networks:** These networks are advisors to governments, NGOs and business. They translate community needs to policy makers and public policy to communities.

- **Operational and Delivery Networks:** The innovators and the “doers;” they implement programs and processes on such solutions as carbon capture, supply chain sustainability, investment in carbon-reducing ventures, and they implement climate adaptation and mitigation.

From these climate change networks we have learned that transforming our relationship with fossil fuels is possible. But it will take immediate, concerted and collective action on the part of an expanded and well-resourced governance network for climate change, along with concerted, concrete actions by every nation, international organizations, private corporations, and NGOs. Global solution networks in climate change can mobilize the public will and collective actions of communities around the world, but will need substantial investment in their infrastructure and expansion to do so.

[Read the full report.](#)

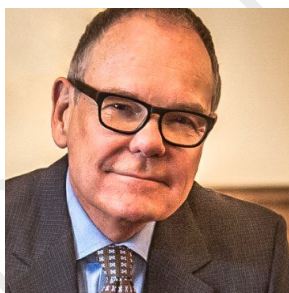
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About the Authors



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Don Tapscott is Executive Director of the *Global Solution Networks* program. As one of the world's leading authorities on innovation, media and the economic and social impact of technology, he advises business and government leaders around the world. He is CEO of the think tank *The Tapscott Group* and has authored or co-authored 14 widely read books. In 2013, the Thinkers50 organization named him the 4th most important living business thinker. He is Adjunct Professor of Management for the Rotman School of Management and the Inaugural Fellow of the Martin Prosperity Institute, both at the University of Toronto. He is about to release the 20th anniversary edition of his bestselling landmark book, *Digital Economy*.



About Global Solution Networks

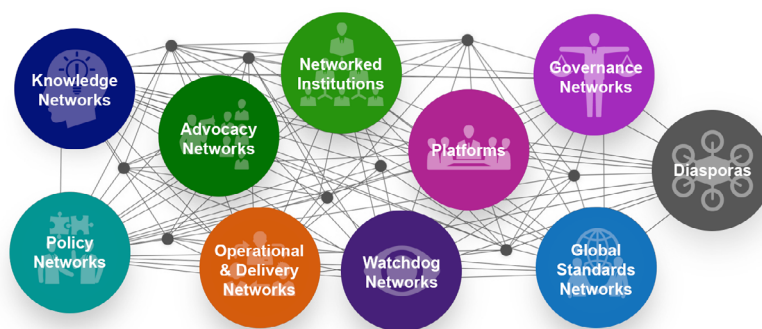
Global Solution Networks is a landmark study of the potential of global web-based and mobile networks for cooperation, problem solving and governance. This research project is a deliverable of the GSN program, offered through the Martin Prosperity Institute at the Rotman School of Management, University of Toronto.

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Ten Types of Global Solution Networks