Don Tapscott

Introducing Global Solution Networks
Understanding the New Multi-Stakeholder Models for Global Cooperation, Problem Solving and Governance

There is a fundamental change underway regarding how global problems can be solved, and perhaps how we govern ourselves on this shrinking planet. Emerging non-state networks of civil society, private sector, government and individual stakeholders are achieving new forms of cooperation, social change and even the production of global public value. They address every conceivable issue facing humanity from poverty, human rights, health and the environment, to economic policy, war and even the governance of the Internet itself.

Enabled by the digital revolution and required by the challenges facing traditional global institutions, these networks are now proliferating across the planet and increasingly having an important impact in solving global problems and enabling global cooperation and governance. Call them Global Solution Networks.

Yet to date there has been no systematic study of this phenomenon or an attempt to understand the potential in improving the state of the world. Little has been done to evaluate what makes these networks tick, how they succeed or fail, what impact they have and how they address the tough issues of legitimacy, accountability, representation and transparency.

This paper sets the framework for a multi-million dollar global investigation of the new models, conducted by The Martin Prosperity Institute at the University

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of Toronto in partnership with a group of private sector, government, global institution and foundation investors. The research phase of the program will end in 2014, producing deliverables from dozens of sub-projects.

A literature review and initial investigation have produced the first comprehensive taxonomy to describe these new networks:

1. Knowledge Networks
2. Operational and Delivery Networks
3. Policy Networks
4. Advocacy Networks
5. Watchdog Networks
6. Platforms
7. Standards Networks
8. Governance Networks
9. Networked Institutions
10. Diasporas

The taxonomy is comprehensive in that all networks can be included. However, the categories are not completely mutually exclusive. Rather any given network, while it may overlap with other network types, can be said to fall *primarily* in one of the categories. We can also see the contours of a new body of knowledge regarding how these networks can be more effective and fulfill their enormous potential in helping to fix a broken world and achieve effective cooperation and governance for a new period of human history.

WHAT THE WORLD NEEDS NOW, IS MORE THAN LOVE[6]

Throughout the twentieth century nation-states cooperated to build global institutions to facilitate joint action and address global problems. Many of these organizations were created in the aftermath of WWII. In 1944, 44 Allied nations gathered in Bretton Woods, New Hampshire, to develop a series of commercial and financial relationships for the industrial world.

This led to the creation of the International Monetary Fund, The World Bank, and ultimately to the United Nations (1945), The G8 (1975), the World Trade Organization (1995) and numerous other organizations based on nation-states. Some of these are formal institutions addressing many issues; some are global initiatives designed to solve a problem, such as the Copenhagen conference on climate change.

But from our inability to come to agreements on everything from how to stop warlords like Joseph Kony (see text box, opposite page) to climate change, fighting poverty, Palestinian statehood or how to govern of the global financial system, many people are questioning why existing approaches have proven so inadequate to fixing a broken world.

For decades, large international institutions like the United Nations and the World Bank have wrestled with some of the world's most intractable problems—the kinds of problems that don't fit neatly into departmental pigeonholes. The

Kony 2012—The Promise and Challenges of New Models

On March 5, 2012 Jason Russell posted a short film Kony 2012 on YouTube with the goal of bringing Joseph Kony, the Ugandan leader of the violent Lord's Resistance Army, to justice for crimes against humanity.[1,2,3,4] Within a week more than 100 million people viewed the video and many of these people expressed support and donated money to Russell's cause.

Of course, skepticism also went viral. Some questioned Russell's character, such as when he told a magazine last year "If Oprah, Steven Spielberg and Bono had a baby, I would be that baby."[5] Others questioned just about everything else from facts in the video to how Russell was spending the money of the charity he ran, Invisible Children.

Kony 2012 was a stunning case of the promise and peril of new, networked models for solving problems on this ever-shrinking planet. Courtesy of the web, stakeholders from civil society, government, the private sector and individual citizens can collaborate like never before. Just as the Internet radically drops transaction and collaboration costs in business it is dropping the costs of collaboration and global cooperation—sometimes on an astronomical scale. We are clearly in the early days of an explosion of new, networked models to solve global problems.

But as the Stop Kony movement shows, the new models raise myriad new questions and challenges. These non-state based models seem to hold great promise, but how do we ensure their legitimacy, accountability and efficacy as vehicles for social justice and global cooperation?

For example, the Invisible Children movement may be inspired, but is it legitimate? In whose interests do the leaders act? How should the many millions of dollars collected by the video campaign be spent? To whom are they accountable? Are they open to participation by appropriate people? The controversial perspective in the Kony video suggesting the American military is needed to fix the situation raises the issue of who makes the decisions about the program of the movement. It's easy to criticize our current global institutions like The United Nations as inept vehicles for solving global problems in cooperation, but at least they appear to be representative and legitimate bodies, accountable, in theory, to the national governments that fund them.

Regardless, the train has left the station and there appears to be no turning back. Old approaches are stalled and multi-stakeholder networks are emerging as a powerful force to fix a broken world.

global economy has made territory less of an issue and shifted the competitive battleground away from physical assets and borders. Increasingly, the national government agenda is full of items that require international response—or are beyond any one country's true power to resolve.

The rapid reconstruction of Europe and the equally rapid development of India and East Asia via the Green Revolution are regarded as some of the major successes of international cooperation. On the other hand, international cooperation and international institutions have utterly failed to extend this rate of economic and social development to the least developed regions of the world. For example, while East Asian countries were enjoying an unparalleled level of growth through the 1980s, the IMF and World Bank were presiding over the continued poverty and starvation of millions in sub-Saharan Africa, despite having lent billions and spent billions more trying to solve these challenges. At the same time, the United Nations is only partially able to stem the ambitions of nuclear wannabees or develop a meaningful successor to the Kyoto Protocol at Copenhagen and other global climate change summits.

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Arguably, the international institutions set up after World War II, while necessary, are insufficient. More often than not, national self-interests take priority when today's challenges demand solutions that transcend the traditional boundaries of the nation-state. They make little room for the inclusion of authentic citizen voices despite the fact that self-organized civic networks are congealing around every major issue and challenge on the international agenda. And while only 18% of the world's population lives in North America and Western Europe, these two regions possess overwhelming influence thanks to the weight of their economic markets and grandfathered status as the world's powerbrokers.

As Klaus Schwab, founder and chairman of the World Economic Forum argues, "The major shifts in relative economic weight among countries that have occurred in recent decades have naturally led emerging players to seek a more consequential role in decision-making than is reflected in the governance of institutions organized for the most part following World War II. Countries with a vest-

ed interest in the current structures have often been reluctant to agree to changes that would dilute their influence."

"All of this makes for an intractable set of global governance organizations that are unable to satisfy the demands of today's global challenges because they are driven by individualized national priorities," says Schwab. "History has shown us that while the diversity of national interests provides breadth of perspective, it too often leads us to the lowest possible common denominator on issues of global importance."[7]

BEYOND GLOBAL INSTITUTIONS

The extraordinary developments of the 2011 Arab Spring point to fresh possibilities for democracy, justice, secular societies and international development. A new generation of young people, tired of being treated as subjects and determined to have jobs, justice and democracy has begun to rewrite the rules that govern how global progress is achieved. Armed with a new communications medium that gives them access to secular information and the ability to organize without organizations, they are showing the power of new kinds of networks for social innovation and change on a global scale.

The Arab Spring poses a sharp contrast between approaches to achieving peace and stability in the Middle East and powerful new models for fixing a broken world. In light of the historical evidence, we should ask the question, is our current approach to global problem solving fundamentally and irreparably broken? Are there too many countries—193—and too many moving parts to produce anything other than the lowest common denominator?

A growing number of social innovators seem to think so. After all, Muhammad Yunus and Matt and Jessica Flannery of the micro-financing network Kiva were seeking to alleviate poverty and create economic opportunity in the developing world. They could have tried to reform international development institutions from within and/or to develop new business models within private sector companies such as banks and financial services companies. But they choose to work outside them instead.

Today, microfinance has created a parallel banking system that has displaced much of the traditional banking and lending structure in the developing world. Innovations for peer-to-peer financing such as Kickstarter show enormous potential, not just as a new model of raising funds for entrepreneurial ventures, but for social innovation. To be sure, microfinance has been subject to huge abuses. Says Barbara Ridpath, former CEO of the ICFR, "Many of its incarnations look like usury, so much so that many developing nations' regulators have started to really crack down on how such networks price their loans." But the overall aggregate results, notably 100 million customers with a repayment rate in the high 90% range, have proven that a networked, and largely self-organized, system of peer-to-peer lending can not only work, it provides a sustainable way to lift millions of people out of poverty. Indeed, the ultimate compliment and confirmation of the

How Kiva Works, Simplified

1 The borrower meets with the Field Partner and requests a loan.

How does Kiva select its Field Partners? ›

2 The Field Partner disburses a loan to the borrower.

Why pre-disbursal helps the borrower »

3 The Field Partner uploads the loan request to Kiva, it's reviewed by a team of volunteer editors and translators and then published on Kiva.org

About Kiva's editors and translators »

4 Kiva lenders fund the loan request, and Kiva sends the funds to the Field Partner.

5 The borrower makes repayments and the Field Partner sends funds owed to Kiva. Kiva repays lenders.

Learn how Kiva's accounting works »

6 The lenders can make another loan, donate to Kiva, or withdraw the money to their PayPal account.

70% of all lenders choose to make another loan!

The Kiva microlending process

Source: Retrieved 5 September 2013, from: http://www.kiva.org/about/how/more

success of small microfinance outfits such as Kiva is that big banks such as HSBC and Citigroup are now rushing into the field, offering microfinance products that compete with the altruistic visions that motivated the Flannerys and Mohammad Yunus.

So now imagine a world where new global networks were created to match the scope of the new economic, environmental and security challenges. But rather than model them on a bloated and inefficient UN-type model, we modeled them on Kiva—with vast networks of people and ideas united with the full complement of skills and resources needed to translate good ideas into action.

This is more than some token efforts to widen the scope and scale of citizen participation in international forums. Conversely, it's not some grandiose vision of a representative global government or a new global bureaucracy. Rather people

and organizations from across society are getting together to create inclusive and participative forums for the generation of ideas and implementation of solutions to today's most pressing problems facing the world. And ultimately, this means doing away with traditional notions of control and ownership over issues, and going beyond the international silos to create networks of the willing and engaged.

You might think this is unlikely or even impossible. Consider the fact that connected digital citizens, awash in information and choices, are already taking action. The NGO sector is exploding in size and influence on the international scene and increasingly setting the agenda in areas such as human rights and the environment. The global NGO sector is a $1.3 trillion industry (equal to the world's seventh largest economy), which employs over 40 million people and serves billions more in mature and emerging markets.[8] Meanwhile virtual communities linking cultural and ethnic diasporas around the globe are breaking down the boundaries of geography and creating bridges based on shared values. These worldwide virtual communities not only provide a sense of belonging, they can become a conduit for problem solving by bringing together people sharing a heritage or a worldview, but not a physical location.

All of this raises the most fundamental question: Is a relentless logic at work that projects a completely different form of governance to succeed the nation-state, just as the nation-state itself was built on the foundations of early forms of government? The answer to that question remains anybody's guess, but one fact seems beyond doubt. As we go forward, governance will be increasingly co-owned by a variety of stakeholders, including non-governmental organizations, transnational corporations and emerging countries such as Brazil, Russia, India and China. Even individual citizens have an unprecedented ability to participate and engage in global activities. As former UN Secretary-General Kofi Annan once put it, "We [now] live in a world where human problems do not come permanently attached to national passports." Global governance is not owned by any one governing body. It is, and should be, a challenge owned by all of us.

There are emerging Advocacy Networks like the Climate Reality Project (formerly the Alliance for Climate Change) that attempt to educate, mobilize and change the policy of governments and global institutions. These networks act as platforms for those who seek change in many areas. A great example is Ushahidi—the web site that was initially established to map reports of violence in Kenya after the post-election fallout of 2008, and evolved into a global network to enable people to share information and organize for change.

There are more elaborate multi-issue networks such as the World Economic Forum or the Clinton Global Initiative that address a wide variety of issues but which, unlike formal state-based institutions, are self-organizing and act as meta-networks attempting to help other networks succeed.

The World Economic Forum is a good example of a meta-network or what you might call a "Networked institution." It used to be a three-day meeting in a Swiss ski village where business, political and academic luminaries got to rub elbows. But increasingly it is holding events around the world and has shifted

many discussions online. It wants to be a 365-days-a-year meeting of minds to set a global agenda and take action to "improve the state of the world."

Amazingly however, there has been very little effort to understand these new species of global problem solving. There is a vast literature about NGOs. There are libraries full of books on the subject of cross border cooperation, or lack thereof. But there is scarce work done specifically on the topic of these new Internet-enabled networks for global action. There is no taxonomy to categorize them so that we might better understand what makes them tick and how they form and grow. We have documented some efforts in a separate paper. Probably the most important work to date was conducted by researcher and consultant Steve Waddell, author of the book *Global Action Networks*. He builds a strong case for networked models of global problem solving and discusses the characteristics of these networks.

However, we are in the early days of understanding these relatively new phenomena. How are these networks initiated? What problems are they addressing? Why do they fill a vacuum in the global governance scene? What impact are they having? What is the technology platform they use? How are they governed? How do they address the tough issues of legitimacy, representation and accountability? What can be done to make them more effective?

ENABLERS OF NEW MODELS FOR GLOBAL PROBLEM SOLVING

The Rise of the Internet, WEB, Mobility, Social Networking and the Internet Ecosystem

Over the past 30 years, the digital revolution and specifically the Internet have evolved and grown in ways no one could have imagined. The Internet continues to fundamentally transform how business is conducted, how government operates, and how individuals interact. It has become one of the greatest catalysts of economic and societal development of all time.

What the Internet pioneers created as an open platform for sharing data is now a game-changing medium used by more than two billion people around the globe. At the heart of this amazing growth—and what distinguishes the Internet from other communication mediums—is its openness, global reach, and its multi-stakeholder model of development and management.

As evidenced by the 300 million people on Twitter, one billion people on Facebook and two billion people with Internet access on mobile devices, the digital revolution continues unabated. The Net has evolved from a network of websites that enabled organizations to present information, to a computing platform in its own right. Computer processing and software can be spread out across the Internet and seamlessly combined as necessary. The Internet is becoming a giant computer that everyone can program, providing a global infrastructure for creativity, participation, sharing and self-organization. And with the explosion of mobile devices, computing is pervasive, enabling us to collaborate 24/7.

These incredible technological developments are all possible because of a Global Solution Network—the ecosystem that developed and now manages the Internet itself. The Internet Engineering Task Force (IETF), as well as those Internet organizations that manage various components of the global Internet infrastructure such as the Regional Internet Registries (RIRs), is part of the global Internet Ecosystem which continues to lead and support the evolution of the 21st century communications platform. The founding fathers who built and managed the Internet in its early days not only worked to develop technical standards and establish the basic functionality of the Internet, but also helped to shape the spirit of the Internet based on the principles of sharing, open access, transparency and choice. Critically, the Internet was built on open standards—with participation in this work open to all (no membership fees and with little to no barriers to participation). Most importantly, all the documents produced were available for free. This ethic of openness and participation quickly propagated across all the Internet governance organizations and continues to be reflected in their open and transparent processes today. And as a result of this commitment to openness, the companies that supply connectivity, services, computers, software and content—along with the users who purchase them and employ the network for their own purposes—are free to innovate, experiment, generate value and enjoy the connectivity, information and services that are made available.

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The Internet's explosive growth has always depended upon and involved broad and diverse inputs from an ecosystem of stakeholders, with different roles, expectations and interests, but united by a common need for—and responsibility to—a global, trusted, accessible Internet. As in any ecosystem, every component is vitally interlinked to the health and sustainability of the whole.

The multi-stakeholder model of development has been—and remains—absolutely essential to the Internet's invention, to its future and to our future. It ensures that all Internet users have a stake in the Internet's development, by virtue of its open technical architecture, the open processes by which it is developed, and the distributed responsibilities and roles in its administration and operation. This model has produced one of the most extraordinary periods of technological devel-

opment, innovation, creativity, and economic and social development in all of human history.

Background Changes to the Architecture of All Institutions

Smart organizations are encouraging, rather than fighting, the heaving growth of massive online communities, many of which emerged from the fringes of the web to attract tens of millions of participants overnight. Even ardent competitors are collaborating on path-breaking science initiatives that accelerate discovery in their industries. Indeed, as a growing number of firms see the benefits of mass collaboration, this new of way organizing will eventually displace the traditional corporation as the economy's primary engine of wealth creation.

As the Internet drops transaction and collaboration costs, we are beginning to see a change in the deep structure and architecture of most institutions in society. Take the case of the corporation: it has long been noted that the traditional vertically integrated corporation is a paradoxical beast. Capitalist titans such as Henry Ford would champion the marketplace's virtues, yet their corporations functioned like planned economies.

For decades these corporate fortresses triumphed over competitors, but no longer. The monolithic, vertically integrated company is beginning to falter against more lithe competitors. Smart companies are making their walls increasingly porous. They use the Internet to open up and harness knowledge, resources and capabilities outside their boundaries. They set a context for innovation and then invite their customers, partners and other third parties to co-create their products and services. In most industries, companies innovate and perform better by creating networks or *business webs.*

We have to go back to the work of Nobel laureate economist Ronald Coase to fully understand what is happening. In 1937, Coase looked at vertically integrated corporations and asked: "Why do firms exist?" After all, the marketplace was the best mechanism for allocating resources, why weren't individuals acting as individual buyers and sellers, rather than gathering in companies with tens of thousands of other co-workers?

Coase argued that the answer was transaction costs, such as searching the marketplace for the right product and negotiating its purchase. The result is that most corporations concluded it was more cost-effective to perform as many functions as possible in-house.

But times have changed. Digital technologies slash transaction and collaboration costs. The result has been that vertically integrated corporations have been unbundling into focused companies that work together. The mantra "focus on what you do best and partner to do the rest" is serving most leaders of the global economy well. In the past a company would outsource functions and ask for weekly or monthly status reports. Today the status reports are 24/7 as companies integrate their networks. Rather than offloading a process, open companies now collaborate.
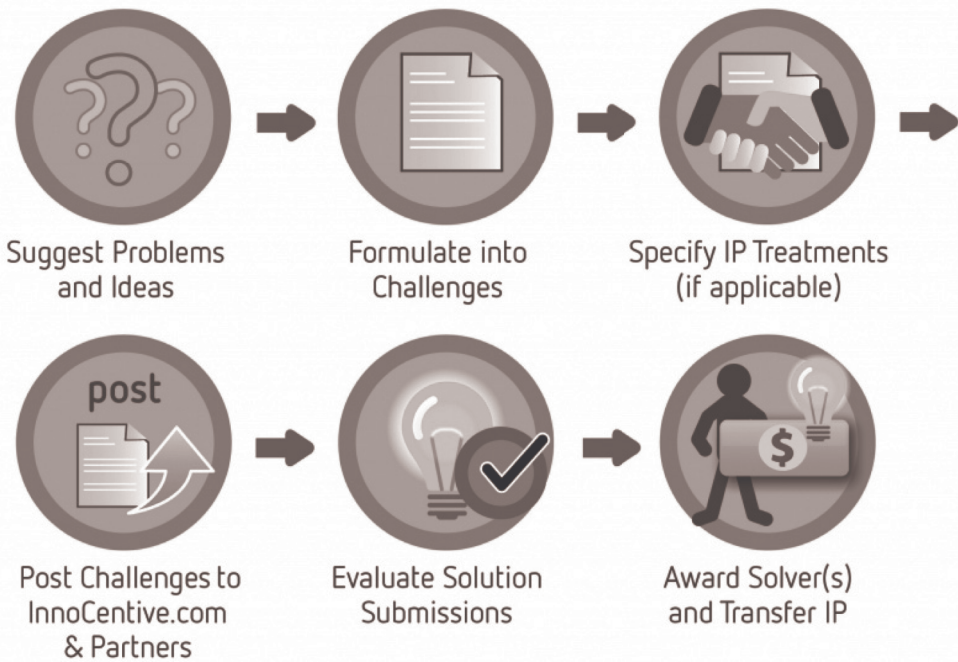
The InnoCentive Premium Challenges Process

Source: Retrieved 5 September 2013, from: https://www.innocentive.com/files/premium_challenge_process_for_site_0.jpg

Conventional wisdom holds that human capital is something closed within a company. Firms are exhorted to hire the "best people," and to motivate, develop and retain them, since human capital (employee base) is the foundation of competitiveness. This is, after all, the knowledge economy and "A company's most important assets get on the elevator every night."

This was especially true in the way companies developed new products and services. For most of the twentieth century, innovation happened inside the firm. Today, smart firms, including very large ones, recognize that innovation often begins at the fringes. The old notion that a company had to attract, develop and retain the best and brightest inside its corporate boundaries is no longer credible. With costs of collaboration falling precipitously, companies can increasingly source ideas, innovations and uniquely qualified minds from a vast global pool of talent.

The upshot is that open companies can innovate more quickly, more cheaply and more effectively by leveraging expertise they can't afford full-time or otherwise would not have access to. For example, external collaboration at Procter & Gamble, through its "Connect and Develop" program, has enabled the company to dramatically increase the pool of new product ideas (with close to 60% coming

from outside), the revenue drawn from them and the innovation success rate—while incidentally saving over $1 billion in R&D costs.

Companies such as Yet2.com and InnoCentive and Inno360 enable people to participate in value creation without being part of a traditional firm. These services enable individuals to work with a wide array of firms by organizing them into highly liquid global markets for innovation and high-end human capital. Such "ideagoras," as I've dubbed them, are transforming the way many firms innovate and manage their intellectual capital. This collaborative approach can lower costs and reduce risks (because you pay only for results) and accelerate innovation (by finding existing solutions).

Today, growing accessibility of the means of creation and a shift to information and information-enhanced goods and services opens up the economy to new kinds of peer collaboration and production. Consumers increasingly self-organize to design goods or services, create knowledge or simply produce dynamic, shared experiences. The result is a new mode of production in the heart of the most advanced economies in the world—a mode of "peer-to-peer" production that harnesses human skill, ingenuity, and intelligence. This is giving rise to a collaboration economy—an increasingly global and interdependent economy in which billions of autonomous producers act, connect and co-create value. Falling collaboration costs and deep structural changes in the economy like accelerating change, complexity and specialization give rise to higher levels of self-organization and new models of the corporation.

Today we see a number of radical new models of peer collaboration and production that are successfully challenging traditional corporations. Two examples are the pioneers who created open-source software such as Linux and collaborative sites such as Wikipedia. These initiatives demonstrate that thousands of dispersed volunteers can create fast, fluid and innovative projects that outperform those of the largest and best-financed enterprises. Similarly, smart companies such as Amazon are opening up their products and technology infrastructures to create an open stage where large communities of partners can create value, and in many cases, create new businesses. And in what Anthony D. Williams and I call the "global plant floor," manufacturing intensive industries are giving rise to planetary ecosystems for designing and building physical goods, marking a new phase in the evolution of peer production.[9]

In this new context, the traditional model of recruiting, managing and retaining employees is clearly outdated. The overriding factor today is engagement. Organizations must build a positive presence in the minds of employees and dynamically engage them throughout their employment years. Companies should encourage those who need a change of scenery and exciting new developmental opportunities to work for business partners, while continuing to maintain ties through alumni groups and other types of networks that can provide ongoing feedback and support for corporate initiatives.

New Approaches to Government per se

Enabled by the digital revolution, national, regional and local governments are going through profound changes. These go beyond so-called e-government. Just as the Internet is enabling private firms to orchestrate capability differently to create goods and services, it is also enabling a new division of labor in society regarding how we create public value. Overall there is a shift from the vertically integrated bureaucracies of the industrial age to networked models of government. Nothing less than a massive transformation in the nature of government and governance is underway. Ideas about government's role, expectations of political leaders and the division of labor in the powers that define governance are all in flux. It is logical that such changes would be reflected globally—changing the structures and architecture of global cooperation.

It goes without saying that as we step into the future, all governments face incredibly complex challenges. Sustaining societies and economies in the face of climate change, energy shortages, poverty, demographic shifts and security will test the ingenuity of those who wish to see, do and participate in the public good.

Even though it's the 21ˢᵗ century, most governments still reflect industrial-age organizational thinking, based on the same command-and-control model as industrial-age enterprises. Today's bureaucracy and the industrial economy rose hand in hand. The economy needed roads, sewers, electrification, railways and a sophisticated military. As government got bigger, and the revenue of government increased, it became necessary to build more elaborate procedures, structures and controls, all run by new layers of professional managers. Non-partisan hiring practices, pay scales, procedures for making appointments, financial systems and audit processes were put in place. At the time, all of this was judged to be state of the art.

These bureaucracies operated like individual "stovepipes"—with information only flowing vertically and rarely between departments. During the last forty years, governments, like corporations, applied computers to their work as each agency acquired and built data processing systems to meet their automation needs. The result is that old procedures, processes and organizational forms were just encoded in software. Huge, unwieldy mainframe beasts not only cemented old ways of working, they required still greater levels of bureaucracy to plan, implement, operate and control them. Despite best efforts, IT experts have largely failed to resolve the chaos of inconsistent databases, dueling spreadsheets, and other data anomalies that plague many government agencies.

This is not sustainable. Governments face a reality in which they are more and more dependent for authority on a network of powers and counter-influences of which they are just a part. Whether streamlining government service delivery or resolving complex global issues, governments are either actively seeking—or can no longer resist—broader participation from citizens and a diverse array of other stakeholders. Just as the modern multinational corporation sources ideas, parts and materials from a vast external network of customers, researchers and suppli-

ers, governments must hone their capacity to integrate skills and knowledge from multiple participants to meet expectations for a more responsive, resourceful, efficient and accountable form of governance.

The first wave of digitally enabled "e-government" strategies delivered some important benefits. It made government information and services more accessible to citizens while creating administrative and operational efficiencies. But too many of these initiatives simply paved the cow paths—that is, they focused on automating existing processes and moving existing government services online.

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It is the next wave of innovation that presents an historic occasion to fundamentally redesign how government operates, how and what the public sector provides, and ultimately, how governments interact and engage with their citizens. It is truly a time when either government plays an active and positive role in its own transformation, or change will happen to it. The transformation process is at the same time exhilarating and painful, but the price of inaction is a lost opportunity for government to redefine its role in society and help launch a new era of participatory government.

The good news is that glimmers of this second wave of innovation are beginning to appear in capitals around the world. Knowledge, information, talent and energy are being moved, shaped and channeled in brand new ways, inside, across and outside of the boundaries of government. A growing number of governments understand the need to distribute power broadly and leverage innovation, knowledge and value from the civil society and private sector.

There is a new kind of public sector organization emerging: open government. This is government that co-innovates with everyone, especially citizens; shares resources that were previously closely guarded; harnesses the power of mass collaboration; and behaves not as an isolated department or jurisdiction, but as something new: a truly integrated organization. Today, it's a radical notion, but perhaps it's only as fantastic as the current version of government would seem to a feudal prince from the Middle Ages visiting us now.

FDR and Winston Churchill wanted stronger government. Ronald Reagan, Margaret Thatcher, the Tea Party and today's Republican Party in the United States want less.

Thanks to the Internet we can now have it both ways. In the US and many other jurisdictions, government is becoming a stronger part of the social ecosystem that binds individuals, communities and businesses—not by absorbing new responsibilities or building additional layers of bureaucracy, but through its willingness to open up formerly closed processes to broader input and innovation. In other words, government becomes a *platform* for the creation of public value and social innovation. It provides resources, sets rules and mediates disputes, but allows citizens, non-profits and the private sector to do most of the heavy lifting.[10]

The Four Pillars of Society

The "networked" approaches to public value and new models of global problem solving are enabled in part by the evolution of global society and the growth of an interdependent world. The digital revolution changes the way we organize capability in society to innovate, and create wealth and public value. There are now four pillars of society that increasingly rely on each other for success and even survival.

1. Most agree that **governments** continue to be important, perhaps even more so than before. Especially since 9/11 polls show that the vast majority of citizens believe there is a critical role for the state in achieving security and prosperity, and achieving harmonization, fairness and justice. The days of "the best government is no government" are over. Further, despite the challenges of nation-states in solving global problems, they are the primary form of geopolitical organization for the foreseeable future.

2. Second, around the world we have all chosen **the private sector and corporations** as the dominant institution for the creation of wealth. We understand that markets are important. Other approaches such as a fully planned economy, anarchy or some kind of free agent nation have proven to be unworkable.

3. In recent years, **civil society** has emerged as a new and critical pillar. When the discussions of Bretton Woods the led to our current crop of global institutions like the United Nations, there were only a few dozen NGOs in the entire world. And they sure didn't have a seat at the table. Now the not-for-profit sector is a massive part of the economy, employing 10 million people in the United States alone. According to one report it is "a US $1.1 trillion industry, the world's eighth largest economy, with more employees than the largest private business in each country."[11] Add in the tens of millions of Americans who are active in some organization attempting to "do good" in society and you have a force to be reckoned with.

4. Finally there is a new kid on the global block, courtesy of the Internet, **the individual citizen**. Because of the web, individuals from every walk of life can have an extraordinary effect on achieving social change. A web site for a murdered Egyptian set up by a Google employee started a revolution. In *Macrowikinomics*, Anthony D. Williams and I describe how two youngsters in

Boston used the Ushahidi network to find a 7 year old girl buried in the post-earthquake rubble in Haiti and save her life—helping solve a global problem (as the Haitian earthquake surely was).

Rethinking the Role of Government

The bottom line is that in the networked world, each of these pillars needs to behave differently.

In the recent past, governments have mostly sat on the sidelines as civil society and the market have driven new legislative innovations. As these systems evolve, the value of more effective government participation is becoming clearer. Several key rules for government suggest themselves:

The first rule is to create feedback loops. If regulatory agencies are to benefit from this phenomenon, they must open up new channels for feedback, provide access to data and create opportunities for greater participation throughout the regulatory lifecycle, including rulemaking, enforcement and evaluation. The UK's Better Regulation Executive, which hosts a web site where interested parties can submit and debate ideas, provides a model for how this can be done on a government-wide basis.[12]

As the representative of the electorate, it is also government's role to protect the public good. Governments will need to be careful to balance inputs and protect the broader public interest when corporations and non-governmental organizations take on broader governance roles. Governments are well positioned to maintain accountability and mediate between competing interests. But as numerous examples show, sorting out conflicting notions of the public good can be difficult.

In some of the earliest attempts to impose codes of conduct on the apparel industry, for example, alliances of North American trade unions and NGOs made unrealistic demands for the apparel companies to establish an international minimum wage and create uniform working conditions around the world. When Gap, one of the first companies to experiment with supply chain monitoring, initiated a program to improve working conditions they found that there were many adverse effects. Not only did Gap's initial efforts dramatically distort the local labor market (in some cases causing doctors to leave their jobs to work in higher paying factory jobs) and generate resistance from local politicians, they also had the perverse effect of forcing Gap to terminate relationships with suppliers that failed to meet their conditions, thus punishing the employees that Gap, and the alliance of trade unions and NGOs, were ostensibly trying to help.[13]

The last rule is to stay current and relevant. Governments will need to get better at probing new developments in science, technology and industry and more nimble when it comes to deciding where government intervention is needed and where it would just get in the way.

New Roles and Responsibilities for the Private Sector

A shift towards more market driven approaches to solving problems in society places more power and more responsibility in the hands of business leaders. Like governments, corporations will have to accept new roles in this evolving nexus of governance.

Many firms cling to a culture of secrecy because they fear making themselves vulnerable to hostile groups. Smart organizations, by contrast, are learning that withholding information, or failing to honestly and clearly communicate, can alienate stakeholders and strain important relationships.

Business should get used to the idea of reaching out to new partners. While business and advocacy organizations make uneasy bedfellows, an increasing number of firms see the benefit of working with third parties such as NGOs. As Charles Sabel suggests, "Without a way of credibly demonstrating the seriousness of their intent, the accuracy of the information they release, and the credibility of the reforms they carry out…they get no benefit from these systems."[14]

Determining where the boundaries of private-sector responsibility for social and environmental problems begin and end will not be easy. And, it's true that civic networks can easily create unrealistic expectations which companies are ill-equipped to fulfill. Coca-Cola's arms-length relationships with bottlers in Colombia raised questions about whether it should help stop the murders of union leaders who were organizing local workers. In the eyes of its critics, Coca-Cola's control of the brand (and share of the profits) makes it responsible. But given Coca-Cola's lack of control over paramilitary violence in Colombia, the company can't be expected to resolve the issue single-handedly.

Corporate leaders with a combination of vision, energy and communication skills, however, can help convince other leaders to share the risk and responsibility of ensuring the regulatory systems evolve to meet the challenges of the 21st century. Initiating dialogue about shared goals and objectives, sharing best practices and publicizing their successes are strategies for securing broader industry commitment.[15] The promise is that private enterprises will become more integrated with the societies in which they operate, more attuned to social and environmental concerns and better equipped to develop pragmatic and profitable solutions for advancing the common good.

Civil Society Networks Get a Seat at the Table

There were no community groups, NGOs and citizen coalitions at the table at Bretton Woods as the civil society was not really viewed as a pillar of society. Today such organizations are becoming major hubs of civic activity and social innovation on the local, national and international stage. However, citizen-driven initiatives can quickly lose steam when the public spotlight (including media attention and sources of funding) suddenly shifts to other issues. Careful planning must be undertaken to ensure that the solutions founding organizations help put in place are able to outlive the direct involvement of the organizations themselves.

What civic networks do best, however, is to activate communities of interest that might otherwise have remained latent. All instances of participatory regulation depend on a critical mass: a small cadre of highly interested and resourceful individuals that put in a disproportionate level of effort relative to the contributions of their peers. While consumer advocacy groups often fill this role, their influence still depends on their ability to activate a broader constituency with an interest in effective regulation. Strategies that enlist existing communities of interest (e.g., asking naturalists and recreationalists to help police public parks or urban neighborhood associations to help monitor air quality) will be more successful than those that indiscriminately address the public at large with vague calls to action.

Finally, although many civic activists may feel they speak for the public good, the public interest is a highly contested domain. Single issue NGOs are often myopically focused on their own agendas—they are not always interested in balancing different visions of the public good, or acknowledging the central role the private sector plays in creating wealth and fuelling innovation in modern societies. Having a role in setting a broader regulatory agenda will carry with it a requirement to think and act beyond narrow interests.[16]

The Individual as a Pillar of Society

Add yourself to the traditional triumvirate of pillars of society. You may not be feeling like much of a pillar these days, but connected and aggregated around the world, you are part of a new collective force that defies traditional thinking about organizations. As we have explained, the digital revolution drops transaction and collaboration costs, so individuals have new power. They can publish their views on anything and organize collective responses to everything from new products to the actions of world leaders. As peers they can produce everything from an encyclopedia and software to motorcycles. They can form government policies on government-sponsored wikis. They can form global study groups and virtual schools and universities. They can organize without organizations to create many things.

The impact of individuals can be considerable. More important, their collective power can scale rapidly with breathtaking velocity. As a case in point there are now over 200 million individuals involved in Facebook Causes. True, for many of them Malcolm Gladwell's term "slacktivists" could apply.[17] It's hard to see how clicking "Like" on Facebook contributes directly to solving a problem or changing the world. It's also true as Gladwell argues that real change comes about through strong, not weak ties in society. However, all strong human ties (perhaps with the exception of a mother and her baby) begin weakly. And just as the Internet drops transaction and collaboration costs in business, so it drops the costs of collaboration for dissent, advocacy, scrutiny, knowledge creation, cooperation and even governance. This means that individuals can have unprecedented power, both acting alone and also in organizing collective action.

CATEGORIZING GLOBAL SOLUTION NETWORKS

What is a Global Solution Network?

For the purposes of this program, a Global Solution Network for global problem solving must have four characteristics:

1. **Diverse Stakeholders.** There are participants from at least two of the four pillars of society (government or international institutions, corporations and business interests, the civil society including NGOs and NPOs (e.g. Schools & Universities) and individual citizens who, thanks to the Internet, can now play an important role in solving global problems by forming a coalition of the willing). A "stakeholder" is "any group or individual who can affect or is affected by the solution of the problem addressed by the network."[18] The challenge is to integrate resources across the four pillars of society and to overcome the traditional ethnic, linguistic, geographical, political,and business-government-civil society division in a collaborative manner.[19]

2. **Beyond One Nation-State.** The network should be global or at least multinational, having participants from more than one country. There are to date few networks that are truly global and that operate on multiple levels—other than the Internet itself. But there is a growing number of problems that are truly global.[20] [21]

3. **Networking.** It must be a 21st century network in the sense that it harnesses some forms of digital communications tools and platforms to achieve its goals. Although there have been partnerships between various sectors of society that pre-date the Internet, the focus of this investigation is networks enabled by the Net.

4. **Progressive Goals.** The network seeks to improve the state of the world through developing new policies or new solutions, influencing states and institutions or otherwise contributing to economic and social development, human rights, sustainability, democracy, global cooperation, building empowering platforms and global governance. One way of thinking about this is that these networks seek to create global public goods, although the notion is a controversial one. Further, not all networks necessarily do "good" or actually help solve problems. "These new networks can be used as easily for ill as for good" says Barbara Ridpath, former CEO of the ICFR and a collaborator on this project. "Indeed, there is an argument that it is far easier today, thanks to the web, to find instructions on how to cause havoc, self-harm or find like-minded lunatics than it has ever been before." For this reason we exclude terrorist or criminal networks that cannot be said by thoughtful observers to have such objectives.

Why a Taxonomy?

Taxonomy (from Ancient Greek "arrangement and method") is the science of identifying and naming species, and arranging them into a classification. Most

taxonomies have been applied to the classification of biological species and organisms, but the concept has been adapted to refer to the classification of many complex phenomenon.

To date, there has been no comprehensive taxonomy of these new non-state-based forms of global cooperation. There appear to be many species. Some networks attempt to solve specific problems like Kiva; others, like the Climate Reality, attempt to educate, mobilize and change the policy of governments and global institutions. There are broader networks around multiple issues like Ushahidi. There are more formal networks, initiated by some entity that acts as the curator and context provider. There are meta-networks addressing attempting to help other networks succeed, like the Global Agenda Council process of the World Economic Forum itself.

A good starting point for any taxonomy outside of natural science is the famous 2x2 matrix device that has dominated most categorization in management. If we were to create a 2x2 matrix for example, what would be the axis and ordinate? The diagram on the facing page is one candidate.

However, because the new networks can be differentiated according to a number of dimensions, a 2x2 matrix is unlikely to be the best candidate:

- **Operational versus Influence?** Is their goal to deliver capability or to influence other stakeholders?
- **Network versus Platform?** Are they a network trying to achieve a change or to provide the platform for other works to self-organize? For instance, Random Hacks of Kindness providing a platform for other organizations.
- **Public funded vs. private funded vs. micro-financed?** What is the main source of funding for the initiative? This is an important issue as "He who pays the piper calls the tune."
- **Stage in the Policy Continuum.** Many networks have to do with government policy and could be categorized according to the stage in the process—from knowledge creation, policy development, policy implementation and policy assurances to actual delivery of policy.
- **Horizontal** (collaboration between countries on the same hierarchical level) **vs. Vertical** ("coercive power").[22]
- **Broadcast vs. Participative?** How do they engage their stakeholders? Are they top-down and unidirectional or do they have a *modus operandi* of participation?
- **Issues addressed.** Just as there are myriad categories of global problems and issues there are myriad networks topics ranging from human rights, the environment, peace, human health, financial system policy and governance.
- **Autonomy** (no government influence) **vs. directive** (interaction highly controlled by government).[23]
- **Problem Classification.** Networks could also be categorized according to the types of problems they address: "trans-boundary problems" of cross-border-movement money laundering, pollution or drug trafficking; "common property problems" regarding oceans, Antarctica; "simultaneous problems" of nations

**A candidate 2x2 matrix of new non-state-based forms of global cooperation**

experiencing similar problems in areas of education; health, welfare, urbanization, and population growth."[24]

• To what extent do they seek to actually **achieve rather than fight change?** Some may actually be defenders of the *status quo*.

A FRAMEWORK FOR UNDERSTANDING THE NEW MODELS

A literature review and initial investigation has produced the first comprehensive taxonomy to describe these new networks. We used a functional perspective to identify the different "species" of problem-solving networks. The taxonomy is "comprehensive" in that all networks can be included. The categories are *not* mutually exclusive and any given network may overlap with other networks types. However, any network can be said to fall *primarily* or *principally* in one of the categories. Networks can also change. As already observed in our research, a network's purpose can shift over time. Several advocacy networks that had focused on campaigning against old-growth logging operations during the 1980s and early 1990s, for example, eventually dropped their adversarial approach and, in the mid-1990s, began to work with major forestry companies to establish sustainable forestry standards for the Forest Stewardship Council. Understanding the conditions under which networks undergo such "purpose shifts" is a good topic for further investigation.

The 10 categories (also summarized in the chart below) are:
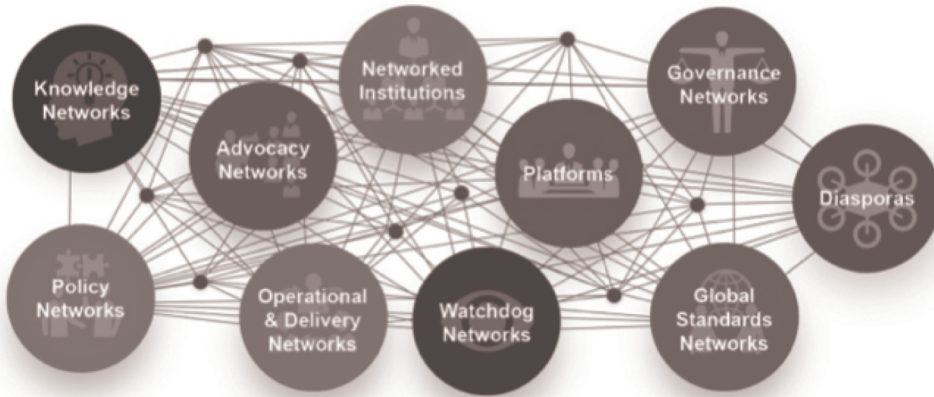
A Taxonomy of Multi-Stakeholder Networks for Global Problem Solving

- **Knowledge Networks,** which develop new thinking, research, ideas and policies that can be helpful in solving global problems. Their emphasis is on the creation of new ideas, not their advocacy.
- **Operational and Delivery Networks** actually deliver the change they seek, supplementing or even bypassing the efforts of traditional institutions.
- **Policy Networks** create government policy even though they are not networks of government policy makers.
- **Advocacy Networks** seek to change the agenda or policies of governments, corporations or other institutions.
- **Watchdog Networks** scrutinize institutions to ensure they behave appropriately.
- **Platforms** create the capability for other networks to organize.
- **Global Standards Networks** are non-state based organizations that develop technical specifications and standards for virtually anything, including standards for the Internet itself.
- **Governance Networks** have achieved or been granted the right and responsibility of non-institutional global governance which they exercise through preforming the functions of many types of GSNs.
- **Networked Institutions** also provide a wide range of capabilities even similar to state-based institutions but with a very different *modus-operandi.*
- **Diasporas** pursue problem solving through kinship and ethnicity connections.
    Let's review the 10 types of "Global Solution Networks for global problem solving, cooperation and governance" with examples from each network.

1. Knowledge Networks

The primary function of Knowledge Networks is to develop new thinking, research, ideas and policies that can be helpful in solving global problems. Their emphasis is on the creation of new ideas not their advocacy.

Prior to the Internet, such networks were relatively limited in their scope and global reach. There were various associations of researchers or research institutes that attempted to build networks. But with information moving around the world at the speed of the postal service or people flying on airplanes to events, the opportunities for knowledge generation were relatively finite. Today knowledge networks can scale, sometimes astronomically.

Wikipedia

With the arrival of the web and information globally at the speed of light all that changed. Knowledge creation could be conducted on an astronomical scale. Most people would view Wikipedia as an encyclopedia—free, collaboratively edited and multilingual. However it is fundamentally a knowledge creation network where articles written by experts, anyone in the world with an Internet connection can edit almost any Wikipedia article. There are 100,000 active contributors, and over 34 million users have signed up for accounts. It is currently the sixth most popular web site in the world.

Since its launch in 2001, Wikipedia has attracted media attention for democratizing both access to and the creation of reliable, accurate articles on an incredibly wide variety of topics. The site encourages participation from individuals around the world; no matter where they live or what language they speak. To date, 22 million articles have been written in 285 languages.

Wikipedia falls into the category of knowledge networks—it aims to solve the global problem of access to information by providing a simple way for people to create articles, thus sharing their ideas and knowledge. It's a great example of how networks enable collaboration, as it clearly could not exist without the Internet.

There are myriad other great examples. TED (Technology, Entertainment and Design) is a global set of conferences owned by the private non-profit Sapling Foundation, formed to disseminate "ideas worth spreading." The Kahn Academy engages tens of millions in the development and study or knowledge. The Global Network for Women and Children's Health Research (GN) seeks to develop knowledge about mortality rates facing women and children in the developing world. Habitat Jam was a massive online event organized by the United Nations Human Settlements Programme (UN-HABITAT), the Government of Canada and IBM.

2. Operational and Delivery Networks

Operational and Delivery Networks actually deliver the change they seek, supplementing or even bypassing the efforts of traditional institutions. Such networks also predate the Internet and have been impactful on the world—the Red Cross being a prime example. But as the Internet drops transaction and collaboration costs, the opportunities to coordinate interventions took off. So did the power of self-organization, as individuals in concert with other institutions, or not, could take action to intervene, on the ground to deliver specific solutions to global problems.

CrisisCommons

Mass collaboration may well be the most important innovation in responding to crises in modern times. CrisisCommons[25] is a case in point. It uses the web to bring together a global community of volunteers from technology, crisis response organizations, government agencies and citizens. These people work together to build and use technology tools to help respond to disasters and improve readiness before a crisis hits.

Volunteers are not only technical folks like coders, programmers and geospatial and visualization experts. The organization also includes people who can lead teams, manage projects, share information, search the Internet, translate languages, know usability, write a research paper and help edit wikis.

Since 2009, CrisisCommons has coordinated crisis event responses such at the Haiti, Chile and Japan earthquakes and the floods in Thailand, Nashville and Pakistan. Over 3,000 people have participated worldwide in over 30 cities across 10 countries including France, United Kingdom, Canada, New Zealand, Chile and Colombia.

This class of networks is growing rapidly as the web lowers the transaction and collaboration costs of "on-the-ground" interventions. For example, 350.org[26] is a global grassroots movement to solve the climate crisis, harnessing the web and led from the bottom up by thousands of volunteer organizers in more than 188 countries. Together they create online campaigns, grassroots organizing and mass public actions to raise awareness. The organization says it "works hard to organize in a new way—everywhere at once, using online tools to facilitate strategic offline action." With masses of volunteers banding together to help crisis-afflicted communities globally, the Standby Task Force (SBTF)[27] was conceptualized to better facilitate and support these humanitarian response efforts. As an operational and delivery network, SBTF uses crowdsourcing and mapping technologies to train and support volunteers while leveraging lessons learned in Haiti, Chile and Pakistan. Digital Democracy (DD)[28] is a year-old, still-tiny organization that uses technology to empower marginalized communities to engage in democratic actions to protect their human rights.

Some networks predate the Internet but have been transformed by its arrival. "The International Federation of Red Cross and Red Crescent Societies (IFRC)[29] can be viewed as a multi-stakeholder network for global problem solving. In fact it is the world's largest humanitarian network reaching 150 million people in 187 National Societies through the work of over 13 million volunteers." The World Wildlife Fund (WWF)[30] has been the world's leading conservation organization for the last 50 years. In that time, the WWF has acted locally and globally, currently supported by 1.2 million US-based members and a staggering 5 million global members. The Global Health Program,[31] a subset of the Bill and Melinda Gates Foundation, seeks to catalyze advances in science and technology to focus on and eradicate major-impact health problems in developing countries. Medicines for Malaria Venture (MMV)[32] is a not-for-profit public-private partnership set on a mission to reduce malaria in disease-endemic countries through the development of new, effective, scalable and affordable anti-malarial drugs. Others are really products of the digital age. Random Hacks of Kindness (RHoK)[33] is a global community of innovators building practical open technology to make the world a better place. Keep a Child Alive[34] is an initiative providing direct healthcare and support to children and families affected by HIV/AIDS in Africa and India.

3. Policy Networks

Policy networks are non-state webs that include non-governmental players in the creation of government policy. They may or may not be created, encouraged or even opposed by formal governments of government institutions. However, powered by global multi-stakeholder collaboration they are becoming a material force to be reckoned with in global policy development. Their activities cover the range of steps in the policy process, beyond to policy proposals or lobbying, including agenda setting, policy formulation, rulemaking, coordination, implementation, and evaluation. Their expertise can often play an important role in global debates and the establishing of norms.[35]

International Competition Network

The International Competition Network (ICN)[36] is an informal, virtual network of agencies with a view to enabling a dialogue about and building a consensus around competition policy principles spanning the global antitrust community. The ICN was created in 2001 following the publication of the *Final Report of the International Competition Policy Advisory Committee to the US Attorney General and Assistant Attorney General for Antitrust*, with its first annual conference taking place in Naples, Italy in 2002.

The purpose of the ICN is to benefit member agencies, consumers and economies by advocating for the adoption of best practices in competition policy, and it is the only international network exclusively dedicated to competition law enforcement.

Since its inception in 2001, the ICN has grown to include 104 competition agencies from 92 jurisdictions. Representing national and multinational competition authorities, members participate in project-oriented working groups together with non-governmental advisors online.

The challenge of creating policy for the Internet itself is a topic of huge debate and perhaps the archetypal example of state-based institutions versus the new models. On the one hand is the state-based World Telecommunications Union responsible for assigning area codes and more broadly regulating telephony? Member states like Russia and China are seeking to have stronger control over the Internet, clearly among other reasons to prevent it being used as a platform for social criticism and change. On the other hand is a collection of networks that argue for a free and open Internet. Some of these like The Internet Engineering Task Force (IETF) or the World Wide Web Consortium (W3C) are not policy networks *per se,* but do advocate for open Internet policies. Other examples include the World Commission on Dams, the International Competition Network, the Medicines for Malaria Venture (which has since become a foundation) and the Renewable Energy Policy Network for the 21st Century (REN21.)

4. Advocacy Networks

There are thousands of Advocacy Networks that seek to change the agenda or policies of governments, corporations or other institutions. Hundreds of these networks are listed at WorldAdvocacy.com.[37] Of course, advocacy has been around since early civilization. Global advocacy is a relatively new phenomenon, paralleling the rise of globalization. In 1969 there was a global movement advocating withdrawal of US troops in Vietnam, culminating in a global day of protest in October 15, 1969.[38] That day of demonstrations was 18 months in the planning and was coordinated primarily through postal mail and telephone calls. With the rise of the web advocacy has gone truly global, and is almost infinitely easier and faster to organize. The Kony 2012 story with its many problems is a case in point.

Avaaz.org

Launched in 2007, Avaaz.org[39] is an independent, not-for-profit global campaign network that operates in 15 languages, served by a core team on 6 continents and thousands of volunteers. Avaaz boasts that "We take action—signing petitions, funding media campaigns and direct actions, emailing, calling and lobbying governments, and organizing 'offline' protests and events—to ensure that the views and values of the world's people inform the decisions that affect us all."

The issues tackled by the Avaaz community are chosen by the volunteers through annual online polling. For 2012, human rights, economic policy for the public good and political corruption are the top three issues. Avaaz says that its model of Internet organizing "allows thousands of individual efforts,

however small, to be rapidly combined into a powerful collective force advocating for change."

Other new players enabled by the web include Conscious Capitalism Institute (CCI)[40]—a movement founded in 2009 to champion the cause of socially responsible governance in the business world. The purpose of Conscious Capitalism is founded in the notion that a new type of capitalism is emerging that allows businesses to maximize performance while also giving back to social good initiatives. An advocacy network, the Institute challenges business leaders to rethink not only their business strategy, but also their larger purpose and role in the interdependent global marketplace. The Institute is made up of a growing global community of scholars, corporate executives and CEOs dedicated to pursuing research and engaging in conversations in order to further the understanding of the idea of conscious capitalism.

5. Watchdog Networks

These networks are in the business of transparency, scrutinizing institutions to ensure that behave appropriately. Topics range from human rights, corruption and the environment to financial services. Watchdogs are in the transparency business, making it a good time to be a watchdog. Basically, governments, companies and other institutions now operate in a hyper-transparent world. So if an institution is going to be naked—and it really has no choice in the matter—it had better be buff.

To be sure, all organizations have a right to some secrecy. Companies have legitimate trade secrets. Employees should not violate confidentially agreements or the law. WikiLeaks and Edward Snowden notwithstanding, it is surely not in the public interest that all diplomacy be conducted in the open. But rather than defaulting to opacity as was done in the past, for many organizations it increasingly makes sense to opt for openness.

Why is this true? Globalization, instant communications and organized civil society have changed the rules of the game. Firms and governments are being held to complex and changing sets of standards—from unrelenting webs of "stakeholders" who pass judgment on corporate behavior—to regulations, new and old, that govern and often complicate everyday activities. In an ultra-transparent world of instant communications, every step and misstep is subject to scrutiny. And every institution with a brand or reputation to protect is vulnerable.

Customers and citizens can evaluate the worth of products and services at levels not possible before. Employees share formerly secret information about organizational strategy, management and challenges. To collaborate effectively, companies, governments and their business partners have no choice but to share intimate knowledge with one another. Powerful institutional investors today own or manage most wealth, and they are developing x-ray vision. Finally, in a world of instant communications, whistleblowers, inquisitive media and Googling, citizens and communities routinely put institutions under the microscope.

A growing number of institutions are therefore opening up—communicating pertinent information to their various stakeholders, in many cases voluntarily. But for the countless governments and other institutions that have plenty to hide, transparency is powerful leverage for good in the world, as sunlight is the best disinfectant. And when it comes to global networks, what was once limited to Transparency International has now become a massive network of networks scrutinizing the behavior of governments, corporations and other institutions.

Human Rights Watch

One of the more effective and influential is Human Rights Watch[41]—a watchdog group for human rights. It was founded in 1976 as a private non-governmental organization, and its members are individuals, government and media. With more than 250 staff, the group investigates human rights conditions in over 70 countries. It relies on individual donations for its funding and with the rise of the Net relies fully on technology as a platform for its work.

In Libya, the organization was able to get vast amounts of proof that Muammar Gaddafi and his regime were abusing human rights. This proof was used to persuade the International Criminal Court to issue a warrant of arrest for the dictator.[42] In Egypt, the organization canvassed morgues to give real numbers of deaths during the nation-wide uprising, which the American government used to pressure the Egyptian military, and the Egyptian government to end its violence. In Syria, the organization had the trust of people and connections to get information that governments and other official channels didn't have. It obtained information that was used to get the American government to put sanctions on Syria, freeze assets, enforce travel bans of key Syrian officials and impose sanctions on its oil assets.

There are countless other watchdog networks. For example, The Fair Labor Association[43] is a collaborative effort of socially responsible companies, colleges and universities, and civil society organizations.

6. Platforms

Some networks seek to provide platforms for other networks to organize. This category is completely new, enabled by the Internet, which provides the technology infrastructure for platforms. Platforms are more than technology. They include some kind of technology but also organizational capability that facilitates collective action. Our research has uncovered some significant new initiatives creating powerful new platforms that hold the promise of further dropping the transaction costs of global problem solving. These will be described in Big Idea Whitepapers as they emerge. But today powerful platforms are already making a difference in the world.

Ushahidi

"Ushahidi, which means 'testimony' in Swahili, is a platform that was initially developed to map reports of violence in Kenya after the post-election fallout at the beginning of 2008."[44] It empowered ordinary Kenyans to use SMS, e-mail or the web to report incidents of violence and create a map of such activity. The Ushahidi team now offers a free and open source mapping and content management system, with the goal of facilitating early warning systems and helping in data visualization for response and recovery. The system focuses on mobile phones, since many areas of the world do not have reliable Internet access.

Ushahidi has revolutionized data visualization by using existing technology to facilitate the creation of citizen-generated maps and releasing the tool under an open source license. To date, the versatile platform has been used in Africa to report medicine shortages, in Gaza to track incidents of violence and in India and Mexico to monitor elections. The Washington Post even partnered with Ushahidi in 2010 to map road blockages and the location of available snow blowers during the infamous Snowmageddon, Washington, DC's largest snowfall in nearly a century.

With every new application, Ushahidi is quietly empowering millions of ordinary individuals to play a larger role in everything from democratic decision-making to crisis management to protecting public health. In doing so, Ushahidi highlights a profound contrast between a set of deeply troubled and stalled institutions that revolve around industrial age thinking and hierarchical organizational designs versus a new set of bottom-up institutions that are being built on principles such as openness, collaboration and the sharing of data and intellectual property.

7. Standards Networks

These are non-state networks developing standards and specifications in virtually every area of technical specification. Whether for brick size, rail gauges, electricity, telephones or computers, standards have been critical to economic development, prosperity and human civilization for millennia. When it comes to international standards, state-based institutions such as the International Standards Organization have led the way. However given the growing domains requiring standards, the complexity of standards, the need for truly global standards and the requirements for vast numbers of stakeholders to be involved, the new networked models of standards setting increasingly make sense. The Internet itself is a case in point. Two networks below address the issue of standards for the Internet.

The Internet Society and the Internet Engineering Task Force

The Internet Society (ISOC)[45] is the organizational home of the Internet Engineering Task Force (IETF),[46] the Internet Architecture Board (IAB),[47] the

Internet Engineering Steering Group (IESG),[48] and the Internet Research Task Force (IRTF)[49]—the standards setting and research arms of the Internet community.

As explained earlier, IETF is a global community of network designers, operators, vendors and researchers whose goal is to make the Internet better from an engineering point of view. Deliverables produced by the IETF are relevant technical documents that influence the way people design, use, and manage the Internet; the IETF is not concerned with the policy or the business of the Internet.

Similar to many Global Solution Networks, IETF's work is done by working groups who focus on various topic areas related to the technical aspects of the Internet. Two groups oversee much of the work of the IETF: the Internet Engineering Steering Group (IESG) and the Internet Architecture Board (IAB), both of which are chartered by the Internet Society (ISOC). The IESG is responsible for the technical management of the IETF activities, including leading working groups, and the IAB provides guidance to the IETF and its board members.

A completely open organization, any individual can participate in the work of IETF or contribute to issues that are discussed. All documents pertaining to the work of the IETF are available publicly online.

How standards networks that are not state-based achieve legitimacy and acceptance by state based players and other key stakeholders is a topic of great interest worthy of investigation.

8. Governance Networks

One of the most extraordinary outcomes of the digital revolution is that multi-stakeholder networks, rather than state based institutions now govern important global resources. These Governance Networks are beginning to address the coordination and even management of critical resources like forests and water. Some are more effective than others.

These networks have achieved or been granted the right and responsibility of non-institutional global governance. They are different from "government networks" as described by Anne-Marie Slaughter (non-state networks of government representatives addressing a global problem) and include non-government players. They may perform the function of other types of GSNs including knowledge creation, policy development, advocacy, operational delivery of change, watchdog, and standards activity. But the whole is greater than the sum if its parts, as the network collectively takes responsibility for the actual governance of a resource.

One of the most important is the Internet itself, which is curated, orchestrated and otherwise governed by an unthinkable collection of individuals, civil society organizations and corporations, with the tacit and in some cases active support of

nation-states. But no government, country, corporation or state-based institution controls it.

Internet Corporation for Assigned Names and Numbers

Internet Corporation for Assigned Names and Numbers (ICANN)[50] is one of the organizations that constitute the complex ecosystem that governs the Internet itself. ICANN is a non-profit organization that coordinates the Internet's system of unique identifiers, ensuring consistent access for people around the world. The original mandate for ICANN came from the United States government, and the organization was incorporated in 1998.

ICANN's vision is "One World. One Internet." It uses a "bottom-up, consensus-driven, multi-stakeholder model" whereby members of sub-groups can raise issues at the grassroots level and almost anyone is welcome to volunteer for most of the working groups. This gives ordinary citizens around the world the chance to offer their points of view and influence the future directions of the Internet, rather than simply accepting the terms laid out by the Board of Directors.

The obvious question is "if we can govern the Internet through such an ecosystem, rather than a state-based institution, what else could we govern? Old growth Forests? Fisheries? The Climate? Digital Currencies? Perhaps multi-stakeholder Networks of City Mayors could provide important global governance functions. The GSN program has projects underway in all these categories. For example in September of 2014 we released a proposal for the creation of a Climate Governance Network, arguing that traditional state-based approaches to solving the problem of carbon have been insufficient.

9. Networked Institutions

Some networks provide such a wide range of capabilities they could be described as Networked Institutions. They are not state-based, but rather true multi-stakeholder networks. The value they generate can range from knowledge generation, advocacy and policy development to the actual delivery of solutions to global problems.

World Economic Forum

Probably the best example is the World Economic Forum[51]—"an independent international organization committed to improving the state of the world by engaging business, political, academic and other leaders of society to shape global, regional and industry agendas." Founded in 1971 as the European Management Forum it grew to the World Economic Forum in 1987. A true multi-stakeholder network it involves all four pillars of society, even though its funding is primarily corporate—1000 member companies.

What started as a meeting for European executives has evolved into a platform to discuss and solve pressing global problems. With the malaise of Bretton

Woods institutions and other international crises, the Forum became neutral terrain, best known for its annual meeting in Davos, a mountain resort in Switzerland. The meeting brings together some 2500 top business leaders, international political leaders, selected intellectuals and journalists to discuss the most pressing issues facing the world, including health and the environment. It also convenes a number of regional meetings around the world.

The Internet plays large in the transformation of the Forum from a series of meetings to a 365-day collaboration involving thousands of leaders from business, government, civil society and academia.

As it evolved from a think-tank into what might be described as a "do-tank" the Forum has developed a number of communities that are researching and taking action on many global problems. These are extensive and illustrate how networked institutions can perform many of the different functions of all 10 network types.

- The Global Agenda Councils are multi-stakeholder groups of thought leaders who meet virtually and at the Summit on the Global Agenda to advance knowledge and develop solutions to issues on the Global Agenda. GAC members provide cross-disciplinary and long-term thinking to pressing global issues by monitoring trends, address knowledge gaps and provide recommendations to address global challenges.

- Global Shapers is a community platform for young people in their 20s to convene both virtually and in person to develop ideas and solutions to some of the world's pressing challenges. Organized as a network of hubs in major cities around the world, Global Shapers work in their local communities and also collaborate between hubs to create a positive global impact generating knowledge, advocating and performing other functions.

- The Forum of Young Global Leaders is a multi-stakeholder, global community of exceptional young people who are committed to shaping the global future. Consisting of 700 leaders from 59 countries, the YGL works interactively and collaboratively to develop solutions to pressing global challenges.

- The Risk Response Network (RRN) provides private and public sector leaders with a platform to map, monitor and mitigate risks. The work of the RRN is focused in 3 areas: Risk research which includes the publication of various risk reports; Risk diagnostics which are delivered through a secure digital, collaborative platform "TopLink" that contains diagnostics tools like "risk radar" and "risk barometer;" and Risk response, a multi-stakeholder partnerships to exchange best practices and facilitate contingency planning in the event of a crisis or unforeseen event. As such they are a Knowledge Network, Operational and Delivery Network and involved in other network types such as Policy development.

- The Women Leaders and Gender Parity program promotes women leadership and global gender parity. The program has created a web-based platform to share successful best practices on how to close gender gaps and promote learning across stakeholder groups. As such it is also an Advocacy Network.

- The Forum recognizes and profiles technology companies—Technology Pioneers—that have a positive impact on the way business and society operate. Pioneers are selected on a yearly basis and profiled in the Technology Pioneers report. To date, more than 400 companies have been selected at Technology Pioneers by Forum.

- Global Growth Companies (GGC) have been identified as having the potential to be a driving force for economic or social change are invited to join the Global Growth Companies (GGC) community. GGC attend an annual meeting and collaborate through a private online networking platform providing the opportunity to seek new business partnerships, network with global policy experts, and knowledge share. To date more than 360 companies for 60 countries are a part of the GGC.

- Knowledge Advisory Group (KAG) is a network of academic administrators who collaborate and engage in peer-to-peer discussion and brainstorming on topics on the education agenda with the goal of incorporating academic perspectives into the work of the Forum.

- Global University Leaders Forum (GULF) is a group that meets by invitation only consisting of the heads of 30 leading global universities. Members participate in peer-to-peer discussion and share insights to inspire and shape decisions made at their home universities.

The Forum is investing heavily in the web-based technology platform required for such an ambitious set of collaborations.

There are other networks that are so elaborate they fall into this category, including The Global Water Partnership (GWP)[52]. This international network offers knowledge, practical advice and policy development for sustainably managing water resources. It convenes events, scrutinizes and performs many of the functions of the 10 network types. The Clinton Global Initiative (CGI)[53] can also be considered a networked institution in that it convenes global leaders to devise and implement actions through the facilitation of cross-sector partnerships aimed at combating some of the world's most important issues, develops knowledge in many areas and undertakes operational delivery roles in several emerging economies.

10. Diasporas

Diasporas are global communities formed by people dispersed from their ancestral lands but who share a common culture and sense of strong identity with their homeland. Thanks to the Internet these people and their affiliated organizations

can now collaborate in multi-stakeholder networks. A number of researchers have noted that diasporas participate in many aspects of global problem solving, from channeling philanthropic dollars and foreign direct investment back to their homelands to organizing volunteer corps to engaging in international diplomacy.[54]

Consider the role of diaspora networks in raising financing for development projects in their home countries, for example. Because diaspora networks connect emigrants living abroad, they can often mobilize significant financial and in-kind investments back into the country they left. International remittances received by developing countries (the money that expats send back to their home country) are estimated to have tripled in the last decade. These flows of money are impossible to track accurately, but the World Bank now believes they are three times greater than the official foreign aid budget and make up significant portions of various countries' GDP. For example, 31% of the GDP of Liberia in 2011 reportedly was due to remittances.[55]

The African Development Bank estimates that the 140 million Africans living in other parts of the world save up to $53 billion a year.[56] Some least-developed countries, like Haiti and Senegal, have ministerial positions focused entirely on diaspora issues.[57] The Rwandan government, for example, set up a fund called Agaciro in 2012 (meaning "dignity" in Kinyarwanda) with a Twitter feed recording the pledges. Another, more structured financial network among expats is the diaspora bond, a specifically tailored financial vehicle that allows governments or financial institutions to raise debt capital to fund development projects. Although these bonds have been in use in India and Israel for decades, Internet platforms are bringing new opportunities to apply this tool in developing and emerging economies.

Networking among diaspora can aggregate new sources of money though both governmental and non-governmental channels. India raised $32 billion, and Israel $11.3 billion in diaspora bonds.[58] In 2009, an Ethiopian diaspora bond was launched to finance a new hydroelectric dam. A second bond was launched in 2011, with new features designed to address issues that were seen to dampen demand for the first issue.[59] Although we have seen diaspora bonds' success in the past, some have run into problems, and the jury is still out on how to structure a bond that best capitalizes on the diaspora network, balancing patriotic sentiment and financial risk.

Diaspora networks also create ways for people to coordinate contributions of skills and expertise that are of critical importance to developing and emerging market economies. The 2012 United Nations Conference on Trade and Development Least Developed Countries Report focused particularly on opportunities for Global Solution Networks of diaspora to use knowledge to improve their home countries. The report cites successes like a medical diaspora network to engage Bangladeshi physicians in North America. This network coordinates training, technology transfer, visits by medical teams and donations of books, journals, and computers.[60] In another example involving Senegalese immigrants in France,

the Local Collective Development Projects (PAISD) network provided a platform for diaspora to use their skills and private investments to support a wide range of development projects in their home country.[61]

UNLEASHING THE POWER OF GLOBAL SOLUTION NETWORKS

While Global Solution Networks (GSNs) hold great promise and are already having a profound impact on the world, they pose a number of difficult questions. Do these networks lack legitimacy because they were not democratically elected by majority rule? In whose interests do they act? To whom are they accountable? Are they open to participation by appropriate people? The United Nations may have growing inadequacies as a vehicle for global cooperation, but at least it appears to be a representative and legitimate body and its delegates are accountable, in theory, to the national governments of which the UN is composed.

There are doubtless other issues to be investigated that are critical to helping us understand how these networks tick and how they can be more successful. For example, the Net facilitates unprecedented forms of negotiation on an international scale, but little is known about how that occurs or can occur best. Fen Hampson, director of the global security program at the Center for International Governance Innovation poses the question, "How do such networks negotiate among themselves to form viable coalitions and how do they negotiate with state authorities, why are some negotiations successful and others not (e.g., ozone treaty versus climate change negotiations)?"

Furthermore, there are important questions about how global solution networks achieve the legitimacy to advance new solutions for global problems in the absence of representative elections and formal mandates from governments. Indeed, how do these networks become accepted as legitimate entities? Do networked forms of governance enhance or undermine their ability to do so, and in what ways? How can these new social forms be made more likely to enhance the ability of governments to protect (or even properly identify) the public interest, or to balance competing private interests? Do repressive governments view such networks as a threat and work to combat them?

The issue of "representation" is a thorny one. Democracy is a powerful, growing and unstoppable concept. But perhaps it's time for the democratic process to evolve to meet the needs of a new world. "Representation" is a deceptive concept and hardly ever means majority rule.

Most leaders of democratic countries rule with the support of less than half of their electorate. In fact, governments across the industrialized world face falling voter participation, declining political engagement and reduced levels of trust. Moreover, when it comes to global representation, the points of view of many, perhaps most, citizens are not represented by their national governments. This is not an argument for "direct democracy" or some kind of majority rule on a daily basis, as this could become the electronic mob. Representative government makes a lot of sense for many reasons. Among others, it enables society to be governed

when there is no clear and dominant point of view. But, while necessary, it is becoming increasingly insufficient. Add to this the evidence that suggests that young people want to be more involved than merely participating in elections every four years, and it's not hard to imagine a need for new democratic processes that transcend elections, especially when considering global problem solving. There will be no elections for a global institution to fight climate change, yet the Climate Reality Project exists because there is global support for the notion that our atmosphere needs less carbon dioxide. In that sense they are representative in that they grow out of a global concern and consensus. A network must integrate the concerns and interests of the stakeholders it tries to help. In other words, a network should not be disassociated from its constituents. Consequently, a network should not only embrace the mission, but it must conduct its operations based on democratic principles.[62]

Achieving Legitimacy

Legitimacy is the flip side of this issue. In the context of GSNs, Barbara Ridpath writes that "legitimacy can be defined as 'a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions.'"[63] She continues, "Legitimacy, like beauty, appears to be to a large extent in the eye of the beholder whether for nation-states or NGOs, particularly once the international dimension is added. The perception of a country, an organization or institution as legitimate often varies as a function of the perspective of the observer."[64] Of course, this also applies to GSNs.

So who exactly grants a GSN the right to bring about change? Some networked forms, for example, are in many respects at odds with traditional standards of legitimacy for participation in collective processes of rule-making, interpretation and collective action. The World Economic Forum process, for example, is inspired, but is it legitimate? Professor Schwab was among the first to address this issue. "Networks need to have legitimacy. These are not entertainment networks we're talking about but networks that have global impact on the state of the world. So how do those networks become legitimate players to make, or at least prepare and shape decisions that affect the lives of many people even outside the network?"

The challenge with these new, networked forms of governance is that it is not yet clear the extent to which they conform with, or represent a fundamental challenge to, existing governmental practices of rule-making. In modern democracies, only governments have the power to enact and enforce the rules that govern society. Yet, in many emerging networks, a multitude of actors is engaged in the process of designing and enforcing informal norms and rules that govern society, without having been elected or formally appointed to do so.

There is also the fact that, while new, networked forms of governance are increasingly accepted by Western institutions, they are often deeply illegitimate

according to the practices of rule-making in non-Western cultural traditions.

It's also possible, however, to view legitimacy from the perspective of the stakeholders. Ridpath writes in her paper on legitimacy, "Conferred legitimacy depends on the legitimacy of the members and stakeholders, and the extent to which they are valid interlocutors for a certain sector of the concerned population. The greater the representation of all parties with an interest, the more likely a GSN will be perceived as legitimate. It is also important that voices in opposition to the positions of the stakeholders have a place to express their views, in order to demonstrate that dissenting outlooks have been considered."[66] Basically, if the stakeholders are legitimate, then the GSN will also be legitimate. While this is an easy-to-understand concept with a lot of appeal, is it really enough? Just because the stakeholders have legitimacy, why does that mean that the GSN has legitimacy? Shouldn't there be something more?

Vinton Cerf, who developed the Internet's TCP/IP protocol and has played a key role in shepherding the Internet into worldwide prominence, says that legitimacy of the stakeholders isn't enough. He looks at legitimacy from a very different perspective—at least in terms of the Internet's multi-stakeholder network. In an interview with project researchers, Cerf said: "Legitimacy comes from the fact that it works." While he was only referring to the Internet's multi-stakeholder network and was uncomfortable projecting his observation to other GSN, it seems reasonable to extend his observation to evaluating the legitimacy of any GSN. To support that view, Ridpath writes, "Vivien Collingwood of Oxford University argues for a more utilitarian approach that would judge NGOs by their outcomes and the effectiveness of their actions."[67] While Collingwood was referring to the United Nations' Non-Governmental Organizations (NGOs), many of which are now cornerstones in GSNs, her comment can very much apply to GSNs as well. Basically, from this perspective, legitimacy isn't something that is conferred by some outside agency, it is something that is earned by the GSN based on its effectiveness. If it works, it's legitimate.

While the idea that "it's legitimate if it works" is very appealing, it too has some issues. For example, what if it was the Global Final Solution Network? Can a network with such a vile purpose be legitimate? Consider that there really is a network promoting global jihad. As part of that network, there's a website that posted instructions for creating a pressure cooker bomb. Two would-be jihadists in Boston followed the instructions and then planted two such bombs at the Boston Marathon. It worked. Three people were killed and more than 100 were injured. Jihadi beholders, furthermore, also undoubtedly thought that the two bombers were heroes. Surely, however, we can't then say that the global jihad network is somehow legitimate.

In short, while "working" is certainly an important part of legitimacy, there still needs to be more. Incidentally, for more on the overall issue of legitimacy, read Barbara Ridpath's paper, "Determining and Building the Legitimacy of Global Solution Networks."

Characteristics of Global Solution Network Legitimacy

There are six characteristics that seem to be common to all GSNs that help them achieve legitimacy. While the specifics of each characteristic will differ, each GSN will have them at least to some degree. All of these characteristics need to be considered when evaluating whether a GSN can be considered legitimate.

1. **Clear Definition of the Mission:** *Is the mission of the organization clearlydefined?* It is critical for a GSN to define its mission. While such a mission does not have to be formalized, all the multi-stakeholders must have a clear idea of the GSN's goals.

2. **Coordinating structure to ensure the network operates within the mission:** *Is there some kind of structure to make sure that the organization is clearly working inside the framework?* Since all GSNs are multi-stakeholder networks, there needs to be some coordinating structure that keeps the network functioning within its mission. In most networks, some group or groups will assume a leadership role in coordinating the GSN's activities. While this will be informal in some networks and formal in others, every GSN needs such a structure. It is important to understand, however, that these groups do not run the networks in a traditional sense. They merely coordinate the activities and are given allegiance by the GSN's stakeholders. If the stakeholders withdraw this allegiance— and this is critical—the coordinating group or groups will have no authority or legitimacy on their own.

3. **Impact and Effectiveness:** *Does the organization produce concrete results based on its mission? Is it effective?* What kind of impact does the GSN have? Is it effective? From Vint Cerf's perspective, "Does it work?" These are simple questions that will likely have complex answers for every GSN. A big issue within this area is what procedures, if any, are put in place by the coordinating group or groups to measure the results of the GSN's initiatives. How does the GSN know if it has met its mission? Every GSN should be able to answer these questions.

4. **Openness, Collaboration, and Transparency:** *Is there a full degree of openness, collaboration, and, transparency built into the network?* Openness, collaboration, and transparency are the "big three" of how all GSN function in relationship to their stakeholders. Openness is a loaded term that is rich with meaning and connotations. While everyone should feel free to add his or her own meaning for openness, it's frequently associated with candor, freedom, flexibility, expansiveness, engagement, and access. In general, GSNs should be open to whoever wants to join—at least within the GSN's mission.

   GSNs should also operate with a model in which stakeholders have open collaborations in order to voice their opinions on various issues. GSNs should also be transparent, which is the disclosure of all pertinent information. All GSN members should have access to meetings, the decision-making process, and all of the GSN's decisions. It should be noted, however, that this doesn't mean that every conversation should be open to every member. The members of every GSN

need privacy as they're exploring various options associated with the GSN's issues. Formal activities, however, such a meetings, online forums, the decision-making process, and decisions should be open to all members.

5. **Clear Process for Rule and Decision Making:** *Are the rule-making and decision-making processes well represented?* All GSNs need to have some type of rules in place for how its stakeholders will operate within the GSN and also will need procedures for how the stakeholders will reach decisions. Because the missions of GSNs vary so widely, however, each GSN will have to adopt these rules and procedures to meet its specific needs. These rules and procedures, however, will go a long way towards determining how well the GSN's stakeholders work together, which will impact the GSN's effectiveness and its stakeholders' level of satisfaction. This is one of the areas where a lot of work is needed to determine the types of rule-making and decision-making that are in place in various GSNs to see if there are any emerging models that are being adopted by a wide variety of GSNs.

6. **Meets contemporary moral and ethical standards :** *Does the GSN meet contemporary moral and ethical standards?* This is a complex characteristic because of how different cultures might define moral and ethical standards. Nevertheless, there are standards that a growing number of individuals worldwide would consider moral and ethical, such as treating all people with respect, avoiding conflicts of interest and corruption, accounting fairly for financial transactions, abiding by the rules of the organization, using authority in a fair and just manner, and having goals that would be considered beneficial to mankind's welfare. While these are hardly exhaustive and certainly subject to debate, unless the organization can be said to act in an ethical and moral manner, then it isn't worthy of being considered as a GSN.

Evaluating Legitimacy—The Case of the World Economic Forum

Legitimacy is a complex topic that can be viewed from many different perspectives. In order to determine whether a GSN is legitimate, at a minimum, you must start by evaluating how a GSN performs based on each of its characteristics. So let's test this out by looking at a GSN: The World Economic Forum.

1. **Mission.** The Forum's mission is "to improve the state of the world." While that is a very high level statement, the Forum tries to back it up by every action, project, initiative or partnership being a step towards achieving this mission. No activity gets approved before a proven link has been established between its outcomes and its impact on the state of the world.

2. **Coordinating Structure**. In the Forum, there is a double account in this respect. The Foundation Board provides hands-on governance to all the initiatives of the organization. The Swiss government itself also acts as a supervising body demanding all audited accounts as well as the minutes from Foundation Board Meetings.

3. **Impact and Effectiveness.** Professor Schwab says, "We at the Forum have extensive measurement programs to evaluate all of our initiatives as well as through our publications which are more concrete than just organizing meetings." But does the Forum "work?" We'll leave that for others to determine. It's clear, however, that is has substantial support from its stakeholders.

4. **Openness, Collaboration, and Transparency**. The Forum's Schwab says, "We at the Forum distinguish clearly, as in normal life, between public and private meetings. However in general, we default towards openness, believing that even the outcome of private discussions should be made as public as possible. This transparency at the Forum is also achieved by a strong media partnership whereby media leaders have access to most of the private sessions."

5. **Rule and Decision Making**. The World Economic Forum has a single coordinating body whose main goal is making sure that its stakeholders are well represented in its activities and that there are clear guidelines for participation. Since it does not have a governance component, its rule-making process will be a lot less important than a governance network.

6. **Moral and Ethical Standards.** The World Economic Forum has the betterment of mankind as its goal. It also has a transparent structure that has ethical operations at its core. To cite one example, its officers have a structured salary schedule designed to meet contemporary European standards. Says Schwab, "We have a salary structure which corresponds to similar organizations such as the World Bank, whereby even the Founder and Chairman cannot earn more than the highest paid Swiss official."

Summary of Legitimacy

So is the World Economic Forum legitimate? Based on the six criteria above, it certainly seems to pass the test. Nevertheless, we're still in the early stages of putting Global Solution Networks under a microscope, so it's far too early to say that we have an ideal way to determine legitimacy. Furthermore, we can never forget Barbara Ridpath's observation that "Legitimacy, like beauty, appears to be to a large extent in the eye of the beholder." What one person sees as legitimate can be just the opposite of another. In short, what makes a Global Solution Network legitimate is a complex and important issue. From one perspective, you can view it from the cohesiveness of the rules and rule-making procedures that hold the network together, which will likely be particularly relevant to operational and delivery, governance, and standards networks. From another, you can look at the collective legitimacy of the stakeholders and then confer legitimacy upon the GSN and its coordinating agencies, which might be particularly relevant to knowledge, policy, advocacy, watchdog networks, and networked institutions. From yet another, you can look at whether the GSN "works," which will be important to all networks. Has it met the goals of its mission? Finally, you also have to consider whether the GSN has appropriate moral and ethical standards, which is obviously highly subjective.

Is there any best way to determine legitimacy? The bottom line is each GSN is unique. As such, each requires a customized evaluation to determine whether it is legitimate. Nevertheless, each evaluation should have the same starting point: evaluating how well the GSN meets the six characteristics that seem to be common to all.

CONCLUSIONS

Evidence is mounting that the current global slump is not just cyclical, but rather symptomatic of a deeper secular change. There is growing evidence that we need to rethink and rebuild many of the organizations and institutions that have served us well for decades, but now have come to the end of their life cycles. There is no more important of these than our institutions for global problem solving.

The global economic crisis should be a wakeup call to the world. The world is broken and the industrial economy and many of its institutions have finally run out of gas—from industries in crisis, governments that can't get things done, failing newspapers and old models of financial services to our energy grid, transportation systems and institutions for global cooperation and problem solving.

At the same time, the contours of new enterprises and industries are becoming clear. Society has at its disposal the most powerful platform ever for bringing together the people, skills and knowledge we need to ensure growth, social development and a just and sustainable world. Because of the digital revolution, the old industrial models are all being turned on their head and new possibilities abound.

There is now a new medium of communications and a new engine of innovation and wealth creation that radically reduces collaboration costs and so enables profound changes to the way we orchestrate capability in society to innovate, to make goods and services and even to create public value.

Enterprise and communities are working together in new ways on shared concerns, endeavors and challenges. People everywhere are collaborating like never before in networks, sometimes on an astronomical scale, to reinvent our institutions and sustain our planet, our health and our existence. From education and science to new approaches to citizen engagement and democracy, sparkling new initiatives are underway, embracing a new set of principles for the 21st century—collaboration, openness, sharing, interdependence and integrity.

The final frontier of this change is the challenge of solving the world's most pressing problems and finding new ways to cooperate and govern ourselves on this shrinking planet.

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1. "Trending Now: Kony 2012 Video Goes Viral," Global News, March 7, 2012, http://www.globaltvbc.com/trending+now+kony+2012+video+goes+viral/6442596160/story.html.
2. "Kony 2012 Sheds Light on Uganda Conflict," News, n.d., http://news.ninemsn.com.au/world/8431277/kony-2012-sheds-light-on-uganda-conflict.
3. "Jackson Center To Show KONY 2012," The Post-Journal, 14 February 2012, http://post-journal.com/page/content.detail/id/599038/Jackson-Center-To-Show-KONY-2012.html?nav=5004.
4. "Kony Targeted by Viral Campaign," BBC, 8 March 2012, sec. Africa,

http://www.bbc.co.uk/news/world-africa-17295078.

5. "Jason Russell | PMC Magazine," n.d., http://pmc-mag.com/2011/02/jason-russell/.

6. This section of the document draws heavily on the book Macrowikinomics: New Solutions for a Connected Planet. Don Tapscott and Anthony D. Williams, Portfolio, 2011.

7. From an interview with Klaus Schwab conducted by Don Tapscott, November 2011.

8. "Background for Working with NGOs—NGOPedia," n.d., http://wiki.ngoconnectafrica.org/wiki/Background_for_Working_with_NGOs#The_value_and_size_of_the_NGO_sector.

9. Don Tapscott and Anthony D. Williams, *Wikinomics: How Mass Collaboration Changes Everything*, Expanded. (Portfolio Hardcover, 2008).

10. To be sure many governments are weakened in their capacity to play a leadership role. In the United States for example developments like the Patriot Act have certainly given the federal government some expansive new powers and authorities.

11. Lester M. Salamon and S. Wojciech Sokolowski, eds., Global Civil Society: Dimensions of the Nonprofit Sector, Volume 2 (Kumarian Press, 2004).

12. "Better Regulation | Policies | BIS," n.d., http://www.bis.gov.uk/bre.

13. "Labor Standards Clash With Global Reality," New York Times, April 24, 2001, http://www.nytimes.com/2001/04/24/world/labor-standards-clash-with-global-reality.html?pagewanted=all&src=pm.

14. Charles Sabel, "Anthony Williams Interviews Charles Sabel," In-person,

16. April 2009.

15. Forums for such activity include the World Business Council on Sustainable Development (a coalition of 165 international companies) and the Global e-Sustainability Initiative (a partnership of ICT service providers and suppliers and the UNEP and ITU).

16. These last two recommendations are in tension. The ability to exert influence often depends on the capacity to mobilize narrow interests. However, the legitimacy to make public policy depends on willingness of these same groups to think more broadly about the public interest.

17. Malcolm Gladwell, "Small Change: Why the Revolution Won't be Tweeted," New Yorker, October 4, 2012. http://www.newyorker.com/reporting/2010/10/04/101004fa_fact_gladwell.

18. Julia Roloff, "Deliberative Multistakeholdernetzwerke: Informelle Kooperationen Zwischen Unternehmen, Zivilgesellschaft Und Staat," Forum Wirtschaftsethik 13, no. 5 (2005): 6–19.

19. Ibid.

20. Steve Waddell, "Design Guidelines to Address Global Challenges: Lessons from Global Action Networks | Networking Action," Organizational Design (2012), http://networkingaction.net/2012/04/design-guidelines-to-address-global-challenges-lessons-from-global-action-networks/.

21. The aim of a multi-stakeholder network could be a "local-to-global" presence. Steve Waddell calls this concept "glocal," wherein multiple action levels (local, national, regional, global) and sectorial geographic frames (nations, markets, interest communities) come together.

22. Anne-Marie Slaughter, A New World Order. (Princeton, N.J.: Princeton University Press, 2004).

23. Jennifer Coston, "A Model and Typology of Government-NGO Relationships," Nonprofit and Voluntary Sector Quarterly 27, no. 3 (September 1, 1998): 358–382.

24. Diane Stone, "Global Public Policy, Transnational Policy Communities, and Their Networks," Policy Studies Journal 36, no. 1 (February 2008): 19–38.

25. "CrisisCommons," CrisisCommons, n.d., http://crisiscommons.org.

26. "350.org," n.d., http://350.org/.

27. "The Standby Task Force | We Believe That Digital Volunteers Are the Future of Humanitarian Response," n.d., http://blog.standbytaskforce.com/.

28. "Digital Democracy | Educating 21st Century Citizens," n.d., http://digital-democracy.org/.

29. "IFRC.org—IFRC," n.d., http://ifrc.org/.

30. "World Wildlife Fund," World Wildlife Fund, n.d., http://wwf.panda.org/?referer=wwfca.

31. "Global Health Program—Bill & Melinda Gates Foundation," n.d., http://www.gatesfounda-

tion.org/global-health/Pages/overview.aspx.

32. "Medicines for Malaria Venture | MMV," n.d., http://www.mmv.org/.

33. "Random Hacks of Kindness," n.d., http://www.rhok.org/.

34. "Keep a Child Alive," n.d., http://keepachildalive.org/.

35. Wikipedia contributors, "Global Public Policy Networks," Wikipedia, the Free Encyclopedia (Wikimedia Foundation, Inc., April 23, 2012), http://en.wikipedia.org/w/index.php?title=Global_Public_Policy_Networks&oldid=488751602

36. "International Competition Network," n.d., http://www.internationalcompetitionnetwork.org/.

37. "World Advocacy—The World's Premier Source of Advocacy Groups," n.d., http://worldadvocacy.com/.

38. Wikipedia contributors, "Moratorium to End the War in Vietnam," Wikipedia, the Free Encyclopedia (Wikimedia Foundation, Inc., September 6, 2012), http://en.wikipedia.org/w/index.php?title=Moratorium_to_End_the_War_in_Vietnam&oldid=495102400.

39. "Avaaz!," Avaaz, n.d., https://secure.avaaz.org/en/front/.

40. "Conscious Capitalism: Accelerating the Integration of Consciousness & CapitalismTM," n.d., http://consciouscapitalism.org/.

41. "Human Rights Watch | Defending Human Rights Worldwide," n.d., http://www.hrw.org/.

42. "Arrest Warrant Issued for Gaddafi," BBC, 2 June 2011, sec. Africa, http://www.bbc.co.uk/news/world-africa-13927208.

43. "Fair Labor Association," n.d., http://www.fairlabor.org/.

44. "Ushahidi," n.d., http://ushahidi.com/.

45. "Internet Society I Internet Issues, Technology, Standards, Policy, Leadership," n.d., http://www.internetsociety.org/.

46. "Internet Engineering Task Force (IETF)," n.d., http://www.ietf.org/.

47. "Internet Architecture Board," n.d., http://www.iab.org/.

48. "The IESG," n.d., http://www.ietf.org/iesg/.

49. "Internet Research Task Force (IRTF)," IRTF, n.d., http://irtf.org/.

50. "Internet Corporation for Assigned Names and Numbers | ICANN," n.d., http://www.icann.org/.

51. "The World Economic Forum," The World Economic Forum | World Economic Forum, n.d., http://www.weforum.org/.

52. "Global Water Partnership," n.d., http://www.gwp.org/.

53. "Clinton Global Initiative," n.d., http://www.clintonglobalinitiative.org/.

54. Kathleen Newland Ed., Diasporas: New Partners in Global Development Policy. This book explores the connections between migration, both permanent and occupational, and development in both the home country and the destination country. Exploring the development impact of Diasporas in Entrepreneurship, capital, tourism, philanthropy, volunteerism and advocacy, it arises from research commission by the U.S. Agency for International Development's Office of Poverty Reduction, Diaspora Network Alliance.

55. "Developing countries to receive $400 billion in remittances in 2012, says World Bank report," World Bank Press Release, November 20, 2012, Web. 18 May 2013.

56. Kayode-Anglade, Seliatou and Nana Spio-Garbrah, "Diaspora Bonds: Some Lessons for African Countries," African Development Bank Africa Economic Brief, Volume 3, No. 13., December 2012.

57. Mark Tran, "Poor countries need joined up thinking on remittances and diaspora – UN," The Guardian, 26 November 2012, Web, 18 May 2013.

58. Dele Meiji Fatunia, "Diaspora Bonds: New emerging market capital," McKinsey on Society: Financing Social Change, Volume 3, Web,. 18 May 2013.

59. "Grand Renaissance Dam Bond Well Under Sale," Grand Millennium Dam, 5 April 2013. Web. 18 May 2013.

60. "Least Developed Countries Report 2012," UNCTAD, Web, 18 May 2013.

61. "Local Collective Development Projects (PAISD)," Remittances for Community Development,

Web, 18 May 2013.

62. Roloff, "Deliberative Multistakeholdernetzwerke: Informelle Kooperationen Zwischen Unternehmen, Zivilgesellschaft Und Staat."

63. Barbara Ridpath, "Determining and Building the Legitimacy of Global Solution Networks," Third Draft, Martin Prosperity Institute: Global Solution Networks Project. This definition came from: M. C. Suchman, 1995. "Managing legitimacy: Strategic and institutional approaches. Academy of Management Review," 20, 571-610, as quoted in The Architecture of Legitimacy: Constructing Accounts of Organizational Controversies, Kimberly D. Elsbach, University of California, Davis Graduate School of Management, http://webuser.bus.umich.edu/Organizations/smo/protected/resources/elsbach00.pdf (last accessed 18 May 2013).

64. Ibid, page 5.

65. Mark Raymond, from an Internet discussion with Don Tapscott, August 2012.

66. Barbara Ridpath, "Determining and Building the Legitimacy of Global Solution Networks," Third Draft, Martin Prosperity Institute: Global Solution Networks Project, page 8.

67. Ibid, page 5.