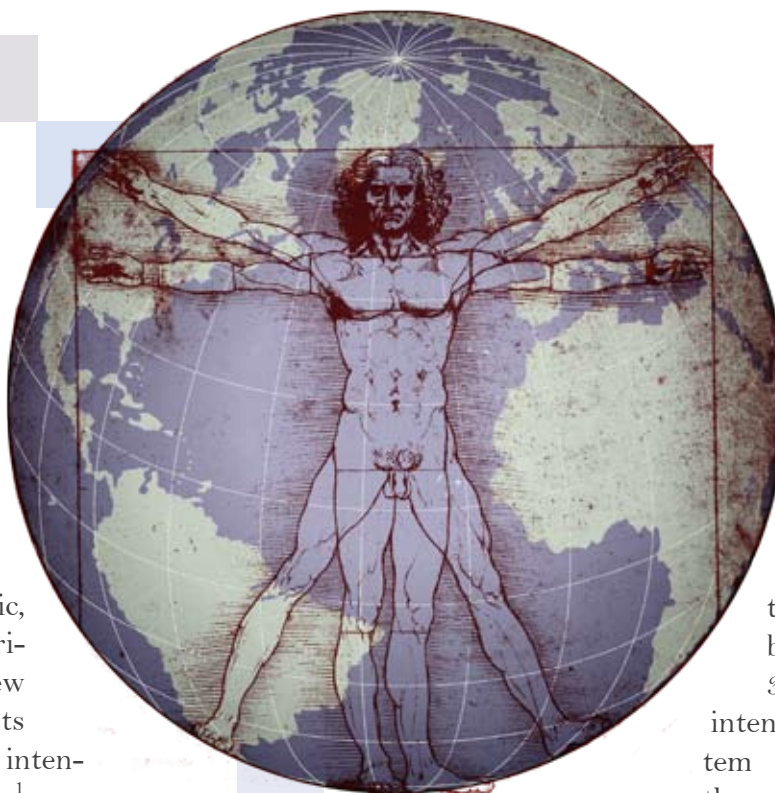




Seven Acupuncture Points for Shifting Capitalism to Create a Regenerative Ecosystem Economy

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Summary

This paper explores the underlying system of thought that has led to our current economic, ecological, social, and spiritual crisis and proposes new ideas and leverage points for a green, inclusive, and intentional ecosystem economy.¹

The framework discussed in the paper is based on two main ideas. The first assumes three stages in the evolution of Western capitalism: Capitalism 1.0—the free market or laissez-faire capitalism (focus on growth);

capitalism 2.0: a more regulated European-style stakeholder capitalism (focus on redistribution); and capitalism 3.0: an (as-yet-unrealized) intentional, inclusive, ecosystem economy that upgrades the capacity for collaboration

and innovation throughout all sectors of society (focus on ecosystem innovation). The second identifies seven key dimensions and categories of economic thought that need to be reframed in order to move the economic system from the 2.0 to 3.0 stage.

They are:

1. Coordination mechanisms: Upgrade the economic operating system from one driven by competition and special-interest-group-led legislation (“ego-system awareness”) to one that operates from shared seeing and common will (driven by an intentional “eco-system awareness”).

2. Nature: Design all production and consumption cycles completely earth-to-earth (without the need for landfills and in co-evolution with the natural ecosystem).

3. Labour: Create economic human rights (such as basic income, access to health, education, entrepreneurial opportunity) in order to enable all people to actualize their full creativity for shared wealth generation and social well-being.

4. Capital: Redesign and redirect money and capital flows to serve all sectors of the economic system (and develop commons-based property rights in support of it).

5. Technology: Build communities of creation to generate breakthrough technologies in areas that matter most to societal needs and aspirations.

6. Leadership: Reinvent leadership learning to facilitate “learning from the emerging future” rather than reproducing the patterns of the past.

7. Public Awareness and Conversation: Create infrastructure innovations that allow all citizens to become aware of their real power in co-creating the intentional ecosystem economy and in deepening our democracy.

THE CRISIS OF OUR TIME IS NOT ABOUT FINANCIAL OR ECONOMIC BANKRUPTCY. THE REAL CRISIS OF OUR TIME IS ABOUT AN INTELLECTUAL BANKRUPTCY: THE BANKRUPTCY OF MAINSTREAM ECONOMIC THOUGHT.

The problem today is that we try to solve 3.0 challenges with 2.0 frameworks and response patterns. The seven categories of economic thought constitute seven acupuncture points that, if touched upon simultaneously with strategic initiatives, could greatly accelerate the shift of the economic system from 2.0 to 3.0.

The crisis of our time is not about financial or economic bankruptcy. The real crisis of our time is about an intellectual bankruptcy: the bankruptcy of mainstream economic thought over the past three decades and beyond. Just as the crumbling of the Berlin Wall in 1989 marked the end of one fundamentalist approach to society and the economy—socialist state-centric fundamentalism—the toppling of the Wall Street house of cards marked the end of another—neoliberal market-centric fundamentalism.

Yet the public debate and crisis response continue to be framed by the same old categories of economic thought that got us into the whole mess in the first place. To paraphrase Albert Einstein’s famous observation, “The significant problems we have cannot be solved by the same type of thinking that created them.” That, however, is exactly what we are busy trying to do.

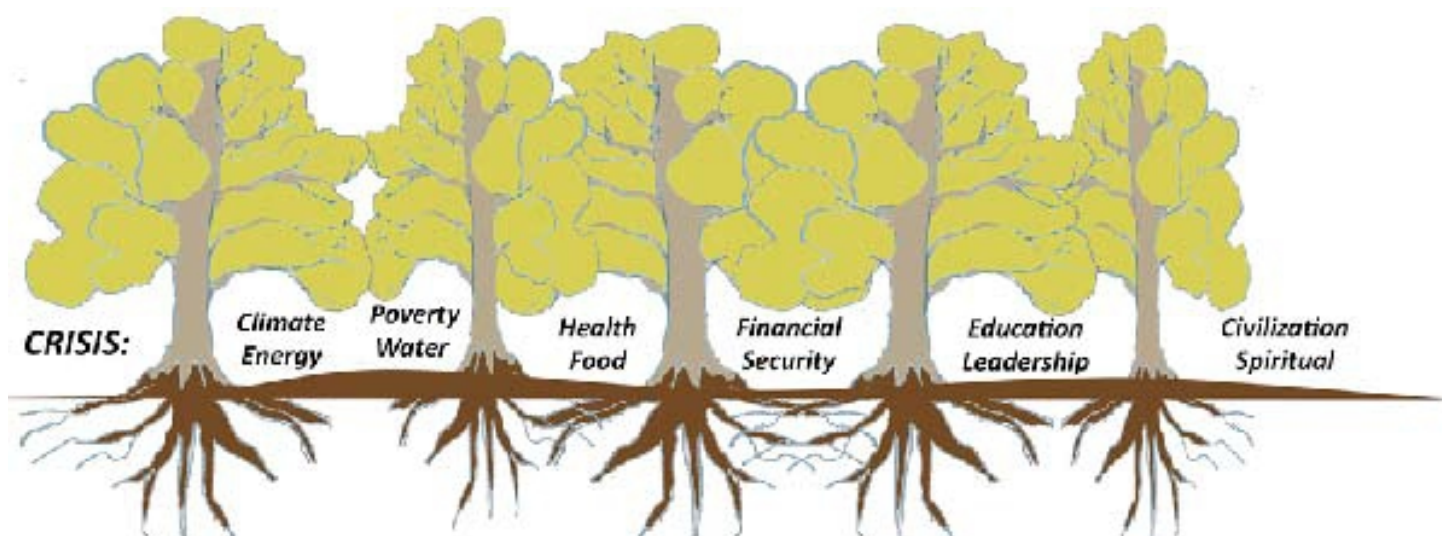


Figure 1: A landscape of current crisis issues

There is a growing group of diverging voices, though. One is that of a former IMF Chief Economist, MIT professor Simon Johnson. He suggests that at the heart of our current crisis lies not just a banking crisis but also a political power struggle between Wall Street and government.² In a primitive political system, argues Johnson, power is transmitted through violence (military coups, militias, etc.). In a more developed society, power is transmitted through money (bribes, kickbacks, campaign contributions). But in the most advanced societies, according to Johnson, power is transmitted through cultural capital such as belief systems. “Over the past decade,” says Johnson, “the attitude took hold that what was good for Wall Street was good for the country.” That belief system has given Wall Street a de facto veto right over public policymaking that no other group or industry enjoys. Since the beginning of the crisis in fall 2008, this unparalleled influence from Wall Street on Washington has only increased.

Power and Paradigm

Why does the U.S. government appear to be unwilling to implement response strategies that would address the crisis at its root by breaking up the financial oligarchy?

Independent and respected economists such as Simon Johnson, and Nobel laureates Paul Krugman and Joseph Stiglitz, have repeatedly suggested measures such as nationalizing the banks, firing management, cleaning up balance sheets, and then reselling their downsized parts to the private sector.

It seems as if there are two main forces or factors that are getting in the way: power and paradigm. In his article “The Quiet Coup,” Johnson elaborates primarily on the first factor: the close ties and personal networks between Wall Street institutions like Goldman Sachs and key federal institutions like the Treasury and the Federal Reserve. In this paper I focus on the other factor: paradigm—how the taken-for-granted assumptions of conventional economic thought prevent us from asking the tough questions that, if explored, could help us to see the root issues of the economic crisis, how it is connected to the need for global transformation, and how we can shape it in a more intentional way.

The Blind Spot

Figure 1 situates the discourse of the financial crisis in the context of today’s other socioeconomic challenges: the energy crisis, the water crisis, the food crisis, the security crisis, the leadership crisis, the health care crisis, the educational crisis, the climate crisis. You name it. The crisis conversation is happening all over the place. What’s interesting is that each of the aforementioned crises has its own discourse, its own NGO (each working with a single-issue mindset), conferences, journals, websites, funding mechanisms, programs, and so forth. While all these single-issue groups of change-makers engage in well-intentioned work, there are two missing pieces: one, a discourse *across* all these silos about how these issues are interconnected, and two, a discourse about the systemic *root causes* that continuously reproduce the whole cluster of crises mentioned above (figure 1).

While recently we have seen some positive movement on the first one, the “horizontal” connectedness and interdependence of issues, we still have not seen much movement on the second one, the “vertical” connection—that is, the deep systemic issues that cause the current cluster of crisis symptoms to be reproduced time and again.

I believe that the most important root issue of the current crisis is *our thinking*: how we collectively think about our economic relationships—or rather, how we don’t. Never in history have we seen such massive public attention on an economic crisis—how it affects us and what caused it—a conversation that permeates all countries, cultures, and media channels. And yet, despite the millions of words devoted to it by “experts” on talk shows and in publications, what do we really know about its root causes? One thing that has become increasingly apparent is that the universe of economic thought that we draw on in public conversations is supplied by a very small number of economic theorists and frameworks. Most practical men, as John Maynard Keynes once noted, are “in thrall to the ideas of some long dead economist.” To explore this vertical causal dimension of the current crisis more fully, we created a research group at MIT’s Green Hub and Presencing Institute to talk to practitioners and thought leaders currently working at the forefront of transforming capitalism by pioneering a green, inclusive, regenerative economy.³ We are now beginning a second track of

activities, a series of roundtable conversations among pioneers and thought leaders, in order to deepen our understanding of the current situation, develop and refine frameworks that can mobilize new thinking, and clarify leverage points that accelerate the shift to a sustainable, inclusive, and co-creative economy.⁴ What has emerged from these conversations to date is a *landscape* of economic transformation that captures key elements of the societal changes currently under way.

The purpose of this paper is to map out a first version of this emerging landscape so that it can focus the discourse going forward.

The overview of the emerging landscape is depicted in figure 2. It shows on the surface level the current cluster of crisis symptoms and then, below the surface, the root issues. The vertical axis of the grid

shows three developmental stages of capitalism and economic thought. Obviously, there are many ways of differentiating economic stages. In this case I use the terminology of capitalism 1.0, 2.0, 3.0 suggested by Barnes (2006), because it's simple and it reminds us that we need to do the same thing with our social and economic institutions that we are used to doing with our computers: *update the operating system*.⁵ Here is a brief overview of the three stages:⁶

✦ **Capitalism 1.0:** The original “free-market” or “laissez-faire” capitalism that has produced phenomenal growth as well as massive negative externalities in the form of poverty, environmental destruction, and periodic currency crises. The societal response to these crises led to ...

✦ **Capitalism 2.0:** A more regulated stakeholder

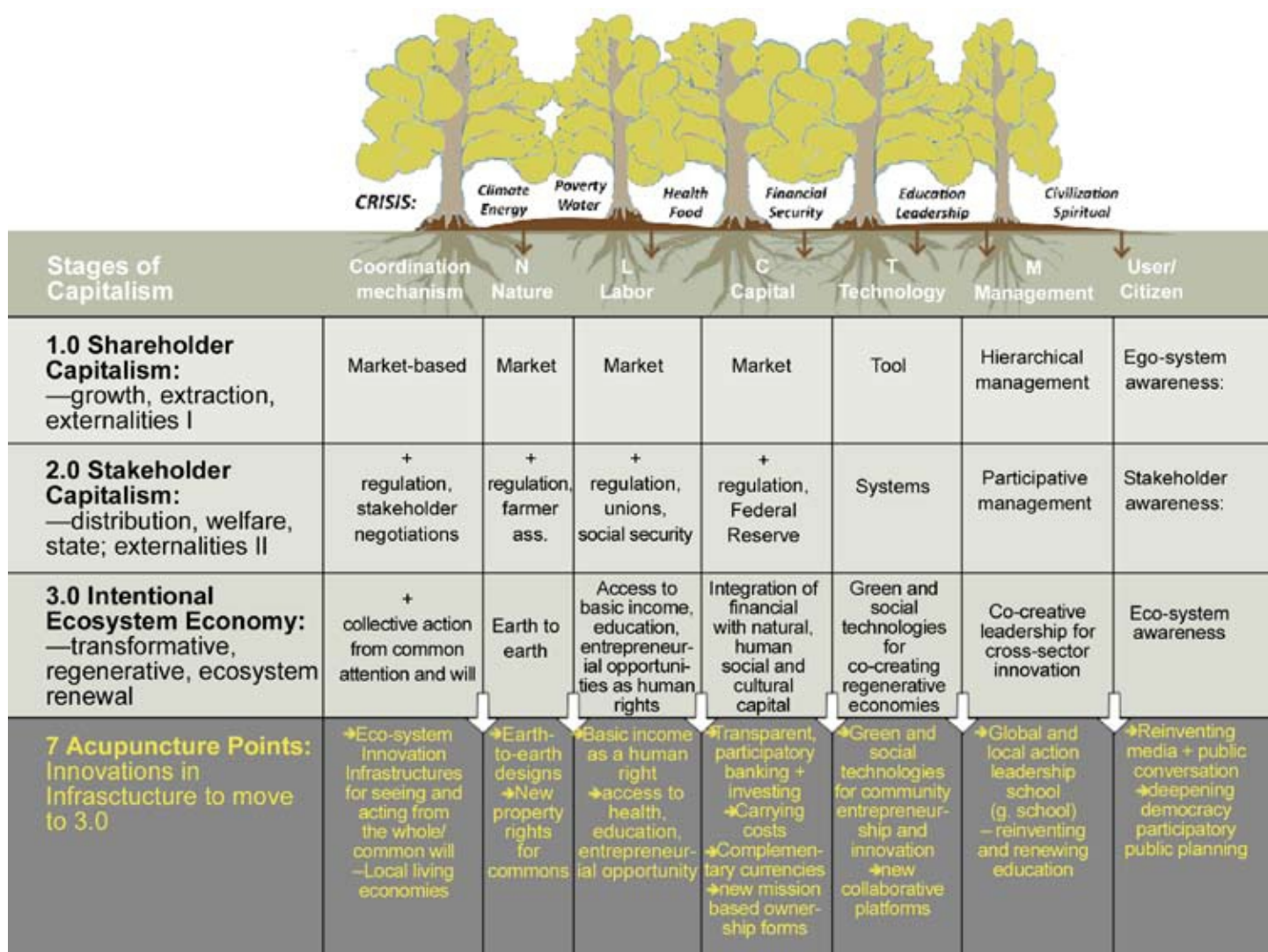


Figure 2: A structural landscape of socio-economic transformation

capitalism in which the major areas of negative externalities are addressed through social security systems, labour unions, international labour and environmental standards, Federal Reserve banks, etc. All these institutions are designed to do the same thing: limit the “free” markets such that negative externalities are minimized.⁷ While the main focus of capitalism 1.0 is on growth, the main focus of capitalism 2.0 is on redistribution in order to sustain society as a whole. The problem with capitalism 2.0 is twofold: one, it never really worked outside the boundaries of the OECD countries. And two, it does not appear to be working to mitigate the current global externalities. Which brings us to our current transformational phase, moving toward ...

✦ **Capitalism 3.0:** An (as-yet-unrealized) intentional and inclusive ecosystem economy that upgrades the capacity for collaboration and innovation across all sectors and systems.

The main point about the evolutionary stages of capitalism is that each system is based on a different state of awareness among its players. In capitalism 1.0, it is an ego-system awareness: “It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own self-interest,” as Adam Smith put it so eloquently. “We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages.”⁸ In capitalism 2.0, this self-interest is widened and mitigated by the self-interest of other stakeholders that organize for collective action to bring their interest to the table through labour unions, government, non-governmental organizations, and so forth.

In the emerging 3.0 stage of our economy, there is a shift of awareness that extends the natural self-interest of the players to the entire ecosystem. Ecosystem awareness means having the ability to operate with a mind that perceives a problem from all of the perspectives in a given social-ecological system (rather than only from one’s own) and to internalize the concerns and issues of the other players in one’s own decision-making.

This internalization of the externalities of other stakeholders is already starting to happen in many

places today. For example, sustainable supply chain projects, fair trade consumer movements, the local living economy movement, and the movement around slow money and conscious investing are extending their reach from a narrow (personal or corporate) ego-system awareness to an ecosystem awareness that includes all other players in the economic process (value chain).⁹ The awareness of decision-makers and its impact on the coordination of a system is not well reflected in conventional economic theory. Neoclassical economists work with given preferences and know little about the state shifts in human awareness and consciousness and how they influence human behavior.¹⁰

Yet, for leadership teams in global companies, international institutions, and local communities, change work is *all about* shifting the state of awareness from an ego-system to an extended stakeholder situation or, in some cases, to the larger ecosystem. That work is leaders’ and change-makers’ job number one: to help people let go of their narrow ego-system awareness and embrace the larger forces of change. Although this aspect of organizational change work is paramount in leadership practice today, the respective state shifts in collective attention and awareness do not register as a relevant category in existing economic frameworks. That points us to what may well be the biggest blind spot in economic theory today: *consciousness*—that is, the structure of human awareness and attention that a community of actors develops when they go on a journey of transformational change.¹¹

Evolutionary stages of capitalism

The British historian Arnold Toynbee conceived of societal progress as an interplay of challenge and response: structural change happens when a society’s elite can no longer respond creatively to major social challenges, and therefore old social formations are replaced by new ones. Applying Toynbee’s framework of challenge and response to the socioeconomic development in the West, we can, in a very simplified form, review its evolution as follows (see Table 1).

The Stability Challenge: The Rise of the Public Sector

Think of Europe at the end of the Thirty Years’ War in 1648, or Russia after the October Revolution in 1918,

Stages of Economic Evolution	Challenge	Response: Primary coordination mechanism	Dominant Sector/Player	Primary New Source of Power
17th–18th Centuries: Precapitalist. Mercantilist/state-driven	Stability	Regulation/ plan	State/government	Sticks
18th–19th Centuries: Capitalism 1.0. Capital/ Shareholder-driven	Growth	Market/ competition	State/government; Capital/business	Carrots
19th–20th Centuries: Capitalism 2.0. Stakeholder interest-driven	Externalities	Negotiation/ dialogue	State/government; Capital/business; Civil society/NGO	Norms
21st Century: Capitalism 3.0 Shared eco-system awareness-driven	Global externalities	Collective action arising from shared awareness and common will	State/government; Capital/business; Civil society/NGOs; Cross-sector communities of creation	Actions that arise from presencing the emerging whole

Table 1: Western Economic Evolution, Its Institutions, and Its Sources of Power (source: Scharmer 2009)

or China after the Chinese Civil War in 1949, when the rise of a strong state and public sector provided a vital coordination mechanism that allowed the allocation and distribution of scarce resources in line with the developmental priorities as perceived by the elites of each country. In that regard, we can view 20th-century socialism in the Soviet Union not as a post-capitalist stage of the economy (according to Marxist theory) but as a pre-capitalist (that is, mercantilist) one.¹²

The Growth Challenge: The Rise of the Private Sector (Capitalism 1.0)

The good thing about a state- and public-sector-driven society is its stability; the downside is its lack of dynamism. Accordingly, the more successfully the stability challenge has been met, the more likely there will be, sooner or later, a shift of focus from stability to growth. To fuel economic growth, we see the intro-

duction of markets, competition, and private property rights. These changes facilitated an unprecedented era of economic growth and massive industrialization.

The Externality Challenge: The Rise of the Civic Sector (Capitalism 2.0)

The good thing about a purely market-driven economy and society is its rapid growth and dynamism; the downside is that it has no means of dealing effectively with some of the major negative externalities that accompany it. There are two types of negative externalities: those that affect the players within a system and those that affect the players outside it. System-interior (Type I) externalities include worker poverty (an issue of distribution), prices of farm products that fall below the threshold of sustainability (an issue of protectionism), and fluctuating share prices and currency exchange rates (an issue of capital destruc-

tion).¹³ Corrective mechanisms to deal with these issues give rise to labour unions, labour rights, social security, protectionism, and federal reserve banks, all of which are designed to do the same thing: limit the market mechanism when its results are dysfunctional or unacceptable and redirect governance by introducing negotiated stakeholder agreements as a third coordination mechanism that complements the two existing ones (markets and regulation).

Examples of system-exterior (Type II) externalities include the destruction of nature and of future generations (60% of the planet's assessed ecosystems are now damaged or threatened), and poverty (with three to four billion people living at or below the absolute poverty line). These Type II issues are much harder to deal with because the stakeholders involved do not have a voice in the normal political process, as workers have when they organize in unions or as farmers have when they lobby for protection. Type II challenges have entered the political process through the mobilization of civil society-driven movements to deal with each of these problems, resulting in the formation of NGOs (non-governmental organizations) or CSOs (civil society organizations) that focus on issues such as the environment (nature), sustainability (future generations), and poverty.

The movement around Type II externalities began to show up as a large-scale social phenomenon only in the last third of the twentieth century and resulted in a massive wave of globalization (and anti-globalization) after the end of the Cold War in 1989 and the emergence of global NGO players only during the 1990s and the first decade of this century. Today there are between one and two million NGOs worldwide that monitor businesses and governments to watch out for and respond to misbehaviour relating to environmental and social externalities. It probably is the biggest movement this planet has ever seen.¹⁴

The Global Externality Challenge: Ecosystem Innovation (Capitalism 3.0)

The good thing about the European style of stakeholder capitalism 2.0 is that it deals with the classical externalities through wealth redistribution, social security, environmental regulation, farm subsidies, and development aid; the downside is that in an age of globalization and changing demographics, many

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of these classical mechanisms appear to be no longer working and/or infeasible in the long run, particularly if applied to Type II global externalities outside one's own country or system. We cannot solve our 21st century problems with the 20th century vocabulary of the European-style welfare state (capitalism 2.0). Therefore the challenge that most societies face is how to create new response mechanisms that deal with both Type I and Type II externalities in a way that strengthens individual and communal entrepreneurship, self-reliance, and cross-sector creativity rather than subsidizing their absence. Table 1 summarizes the above line of thought.

A primary challenge defines each developmental stage; each challenge required society to respond by creating a new coordination mechanism (central plan → market → stakeholder negotiation), which then led to the rise of a new primary institutional actor (government → business → NGO) and source of power (sticks → carrots → norms). Each of these configurations also came with a unique geometry of power from centralized (central plan and hierarchy) to more decentralized forms (markets and competition) to forms negotiated around stakeholder interest (negotiation and dialogue). The last row continues the same



developmental perspective into the currently emerging stage (3.0).

Transforming the core categories of economic thought

To understand the deeper territory of the current structural change we need to return to figure 2, which maps the transformation landscape from an attention-and-consciousness-based economic framework. The matrix in figure 2 depicts the three stages of capitalism (and consciousness) along the vertical dimension and seven key categories of economic thought along the horizontal dimension. Looking at that grid, we see immediately what the problem is with the current economic discourse in the U.S. (and in most other countries): it focuses on the wrong topic. It focuses on the 20th century debate between capitalism 1.0 (usually fuelled by a free-market-centric ideology from the conservative side) and capitalism 2.0 (usually fuelled by a government-centric ideology from the progressive side). But that was last century's debate. After the collapse of the Berlin Wall (and state fundamentalism), and in this century since the meltdown of Wall Street (and market fundamentalism), we face a different problem: how to move from the ideological either-or debate to a pragmatic both-and integration as part of an upgrade to capitalism 3.0, which would allow it to cope with the new challenges of this century better, faster, and with fewer catastrophic side effects.

The grid in figure 2 shows that as capitalism is transformed from 1.0 to 2.0 to 3.0, so is economic thought. In capitalism 1.0 the key concepts of economic thought were framed within the paradigm of “free” markets and ego-system awareness. In capitalism 2.0 they have been framed within the paradigm of regulated markets, mitigated stakeholder interests, and greater externality awareness. In the emerging 3.0 stage of global economic development, I believe, they will be framed by a paradigm of collective leadership, ecosystem awareness, and collective action that arises from common attention and will.

Perhaps the most important research question of our time is how to spell out the last two rows in the matrix of figure 2: how to *rethink* the key categories of economic thought in light of the 21st century societal challenges; and how to identify practical *leverage points* that could shift the system from 2.0 to 3.0. I call them

“acupuncture points” because that term emphasizes that the transformation requires a *set* of interrelated system interventions.

The seven acupuncture points (or points of intervention) relate to the following core questions:

- (1) Coordination: How can we upgrade the current economic operating system from mere competition and special interest group-influenced legislation (“egcosystem awareness” driven) to inclusive and transparent ways of co-sensing and co-creating the regenerative economy (“ecosystem awareness” driven)?
- (2) Earth-to-earth: How can we design all products, production processes, and material systems to exist and operate as closed loop cycles— “earth to earth” (without landfills) such that everything that we take from the earth will be returned to it at the same or a higher level of quality?
- (3) Labour and creativity: What economic human rights (such as basic income) can help to unleash human creativity for generating equitable wealth and socio-ecological well-being?
- (4) Capital and money: How can we redesign and redirect the flow of money and capital throughout the economic system to serve the health and well-being of all? And how can we invent commons-based property rights that would better facilitate this circulation?



(5) Technology and knowledge creation: How can we grow and cultivate *communities of creation* that generate green and social technologies and make them available in (open-source-type) forms that maximize their best use in society?

(6) Leadership capacity building: How can we create a network of green global action leadership schools (“g.schools”) that connects young people with a global movement of institutional renewal and puts them in the driver’s seat of profound societal change?

(7) Conversation and collective awareness: How can we create infrastructure innovations that allow all citizens to become aware of their real power in co-creating the intentional ecosystem economy and in deepening our democracy?

In the remainder of the paper I outline some discussion starters on each of these core questions and acupuncture points.

(1) A coordination mechanism to upgrade the current operating system

The first acupuncture point concerns the evolution of *coordination mechanisms* that navigate the global distribution of labour today. In capitalism 1.0 we respond to this coordination problem with “markets and competition.” In capitalism 2.0 we realize that the enormous growth that competition unleashed came with unintended side effects, such as massive poverty. Hence, capitalism 2.0 offers a second, complementary, solution: regulation, standards, regulatory agencies (like the Federal Reserve System), and negotiations among organized interest groups (such as labour unions and employers) that helped to increase fairness, equity, and efficiency. This shift happened in Germany mainly during the 1880s with Bismarck’s introduction of social security legislation. It happened in the U.S. mainly in 1933–36 with FDR’s New Deal. In both cases it resulted in a 2.0 type of capitalism in which government and organized stakeholder groups created standards, conditions, and resource redistributions that allowed the forces of competition to work with fewer negative side effects. Today that system, which worked well in the West (the OECD countries) for much of the 20th century and didn’t work almost everywhere else, is hitting the wall of global externalities (e.g., climate

JUST AS THE TRANSITION FROM CAPITALISM 1.0 TO 2.0 WAS FACILITATED BY A SET OF PROFOUND INSTITUTIONAL INNOVATIONS (LIKE THE FEDERAL RESERVE OR THE SOCIAL SECURITY SYSTEM), WE NOW NEED THE NEXT SET OF PROFOUND INSTITUTIONAL INNOVATIONS TO ENHANCE THE INTELLIGENCE OF THE EXISTING COORDINATION MECHANISMS IN OUR ECONOMY.

change), the well-being of future generations, and the survival of non-human species.

That’s where the 2.0 model ends. If we look at the huge and historically unparalleled transformation challenge that is ahead of us (over the next decade or two), and at the very modest current rate of progress on climate change, poverty, and other externalities, there is really no question that what we need now is a *massive transformational shift* in collective awareness and attention that can spark a different and deeper level of response—locally, regionally, nationally, and globally. We need massive public and private investments in new infrastructures that enable, facilitate, and hold this deeper generative response. These new infrastructures are needed in place-based communities like urban ecosystems (as we see in the “local living economy” movement, among others), but also in more distributed situations like business ecosystems, where such an enabling infrastructure should link all players along the value chain, from sourcing raw materials to the end consumer. Across all industries, the whole web of value-chain relationships needs to become more transparent and reflective (open-minded), more empathic and inclusive (open-hearted), and more action oriented and willing to lend a hand (open-willed).

Just as the transition from capitalism 1.0 to 2.0 was facilitated by a set of profound institutional innovations (like the Federal Reserve or the social security system), we now need the next set of profound institutional innovations to enhance the intelligence of the existing coordination mechanisms in our economy. We need enabling infrastructures that facilitate the evolution of a new coordination mechanism that revolves around *creating collective action that arises from shared attention and common will*.¹⁵

We already see early-stage prototypes of this new

coordination mechanism emerging. We see it spontaneously showing up in local living economies where citizens and small-business owners work together to create a new type of local economy. We saw it after the Wall Street meltdown in fall 2008 when the world's leaders almost instantly created a new forum for discussing and addressing the crisis together. We see other small versions of this new coordination mechanism arise spontaneously whenever a disaster response is necessary: people know that most of the other mechanisms are broken or insufficient and that action is needed immediately. So what do we do in emergencies? We come together, look at and analyze the situation, and quickly decide, what needs to be done next; and then without any abstract coordination, we move to collective action in an instant—that is, to each one doing his part in responding to the apparent need. In these cases the coordination mechanism is not an abstract entity that is separate from the reality on the ground (like price mechanisms or government regulation); in these cases the collective action emerges from the presence of a shared body of attention that *connects* all the players to each other and to the situation on the ground. The problem we have today is that this mechanism, the shared body of collective attention and common will, is a largely missing resource. Its absence often prevents movement from high aspirations to better conversations and from better conversations to transformative action.

I see three immediate possibilities for prototyping this new coordination mechanism for collective action arising from shared attention and common will: linking the players and participants (1) in place-based communities such as city ecologies; (2) in distributed value chains or business ecosystems such as food, health, and educational systems; and (3) through innovations in participatory planning and direct democracy.

(2) Earth-to-earth production – consumption cycles

The second acupuncture point concerns the interface that an economic system has with the earth and its ecosystems. All economic activities arise from and eventually return to the earth. All economic activities start with human beings receiving and taking the gifts of nature in order to meet their basic needs. The more an economy develops, the more processing we apply

to these gifts of nature (fruits, raw materials, etc.). But eventually everything that we take from nature is returned to her in some form—and our job is to make sure that we return it in a form that is at least as pure and clean as it was when we received it.

The problem of course is that we do the opposite of that. Twenty percent of the earth's land cover has been significantly degraded by human activity and 60 percent of the planet's assessed ecosystems are now damaged or threatened, mostly by our way of organizing economic activity.¹⁶ The challenges associated with the emission of greenhouse gases epitomize the massive use of fossil fuels that keeps the global industrial machine operating. Although as consumers we have moved from denial to awareness in many of these cases, our behaviour as a global community has not changed much. We keep doing more of the same.

The problem at issue here, framed in the language of economics, is the problem of externalities: the private costs are different from the social costs.¹⁷ A company that emits massive greenhouse gases does not pay for the use of the limited absorption capacity of our global commons. A farmer does not pay for poisoning the groundwater when he uses pesticides and herbicides. Nor does the agri-business that produces the fertilizers pay for the carbon emissions that result from the energy-intensive way of producing them. The organic farmer next door, who does not use (de facto subsidized) pesticides, herbicides, and fertilizers, sells his products for a higher price than the conventional farmer, although conventional farming, if we counted all the hidden social, health, and ecological costs, is much more expensive to society in the long run. So the problem is that “private costs” (the cost to the producers) do not reflect the true “social and environmental costs” (the cost to society) because we do not account for natural, social, and cultural capital. What can we do about it?

Peter Barnes, author of the book *Capitalism 3.0*, has suggested bringing in these missing voices through the creation of a new class of property rights: *common* property rights. These rights could be effectively implemented through trusts that would own them and distribute funds (from a cap-and-trade system for carbon emissions, for example) to citizens (one person, one share), to communities, and in part to the government for public infrastructure investment. An

NEW FORMS OF COLLABORATION BETWEEN COMPANIES AND NGOs, AS WELL AS SMART LEGISLATIVE FRAMEWORKS, ARE IMPORTANT LEVERAGE POINTS FOR SPEEDING UP THE PROCESS OF ECOSYSTEM-WIDE INNOVATION AND REDESIGN.

example of such a commons-based trust is the Alaska Permanent Fund, a constitutionally established fund that is managed by a semi-independent corporation. The Permanent Fund receives at least 25 percent of its revenues from natural resources (such as oil and gas), which it sets aside to benefit current and future generations of Alaskans.

The fund grew from an initial investment of \$734,000 in 1977 to approximately \$28 billion as of March 2008. Each year the fund's realized earnings are split between inflation-proofing, operating expenses, and the annual Permanent Fund dividend (which amounted to \$2,068 per citizen in 2008).

The point about trust-based community property rights is that they don't operate like a company (which tends to be driven by profits over the short term: the next quarter) or like a government (which tends to be driven by special interest groups over the short and medium term: the next election). A trust and its independent trustees are accountable for the long-term sustainability of the specific commons that they manage for the next generation. The creation of a new class of commons-based property rights would institutionalize the voice of those who are by and large voiceless (future generations).

On a personal note, my family and I chose to transfer a privately owned family farm to a trust-like ownership form that is designed to sustain the mission of the farm, which is sustainable agriculture, education, and societal awareness creation. With the new trust-based ownership structure we were able to attract much better resources and investments, as well as partners who were interested in pioneering new social, economic, and ecological practices. We "lost" the ability to turn that piece of private property into cash; but we "gained" a piece of common property that now is better prepared to partner and pioneer for the 3.0 stage of the economy.¹⁸ While that farm on a small scale embodies the principle of earth-to-earth material flows, it surely is much more challenging to implement

these principles on a scale of regional and or global business ecosystems. And yet, that is exactly what is happening in many industries. New forms of collaboration between companies (supply chains) and NGOs (nongovernmental organizations, which make can business people aware of the social and ecological impact of their decision-making), as well as smart legislative frameworks that require manufacturers to dispose of their industrial waste responsibly and to recycle their own products, are important leverage points for speeding up the process of ecosystem-wide innovation and redesign.

(3) Labour + economic human rights that lead to social well-being and wealth creation

The third acupuncture point concerns the evolution of labour and human rights: What economic rights could help to unleash human creativity to generate wealth and social well-being? The planet has roughly 4 billion people who live in poverty (on less than two dollars a day). Do we lack the products to take care of those billions whose basic needs are largely unmet? Not at all. In fact, as a global economy, we currently have a significant oversupply of products and production capacity in most of our industries. We (can and do) produce more stuff than we can sell.

What then is the problem? It's income. People don't have the income to purchase what they need. Why not? Because our thinking about income is still stuck in stage 1.0, while the real economy is moving quickly from 2.0 to 3.0. We think that only those who have jobs in the formal sector should earn an income. That is the current mental model. But the reality is far from that. Most income today is paid from sources other than work in the formal sector (such as transfer payments or interest or rent from asset ownership).¹⁹ So if we can afford to transfer trillions of dollars to the Wall Street financial oligarchy, why can't we afford to transfer even some modest amount to those who suffer the most in any kind of economic crisis: the marginalized and poor who lack the financial buffer to absorb the contraction in the economy and to weather the downturn?

So the bigger picture comprises four fundamental facts:

- (a) Poverty: some 40% of people worldwide survive on less than \$2 a day.

(b) Under-consumption: we produce much more than we can sell.

(c) Unemployment: hundreds of millions are unemployed, and millions more join that pool every year.

(d) The commons: there is an enormous amount of work to do in all of our communities and in preserving the commons, but we can't find people to do it.

These four issues share one common element: lack of income—lack of income to meet basic needs, to buy products, to create jobs and entrepreneurial opportunity, and to get the work done.

So how do we develop more innovative ways to link and address these four issues? Waiting for growth to happen and trickle down (the 1.0 response) is not a viable option, not only because it has been already tried (1979–2008), but also because the side effects are killing us: today we use the equivalent of 1.3 planets to provide the resources we use and to absorb our waste. That is, it takes the Earth one year and four months to regenerate the resources we use and absorb the waste we produce in one year.²⁰ At that rate, we know that just doing more of the same will not solve the problem.

The basic challenge we are up against is this: are we willing to accept that we are not separate from each other, but are economically and socially a highly interdependent field of relationships and communities? And if we agree that that multi-level connection exists, are we willing to lend a hand to each other? If the answer to that is yes, then the highest-leverage economic intervention would be to simply create a human right to a basic income for every human being that, if combined with free or inexpensive access to health care and education, would create a playing field that gave everyone a chance to pursue their aspirations and dreams—to put their real creativity into the service of the larger community.

A few centuries ago, most of us would have been working in a very dependent situation (as slave, servant, or peasant). Then industrialization would have moved many of us out of that state and we would have worked our way up through labour. But conventional labour is just another form of dependence: you don't sell your body, but you sell your time (1.0).

Then, with regulation, labour standards, and labour unions, things improve, but you are still dependent,

ARE WE WILLING TO ACCEPT THAT WE ARE NOT SEPARATE FROM EACH OTHER, BUT ARE ECONOMICALLY AND SOCIALLY A HIGHLY INTERDEPENDENT FIELD OF RELATIONSHIPS AND COMMUNITIES?

though in a more advanced form (2.0). So what would labour look like in capitalism 3.0? You would free up paid labour in order to enhance creativity and (business or social) entrepreneurship. You would sell your products and services, not your time, either individually or collectively, through shared company ownership. So the question is how to create conditions that would allow all people, rather than just a few, to create their economic livelihood by having access to *all* these resources and options?

(4) Money and capital flows that serve all of humanity

The fourth acupuncture point concerns the evolution of money and capital. The main problem with our current money system, according to Bernhard Lietaer, author of *The Future of Money*, is that it is too efficient.²¹ It focuses too narrowly on short-term financial profitability at the expense of a whole host of unintended side effects that damage the longer-term health, resilience, and survival capacity of the system. In the financial sector the single-minded quest for short-term financial profitability has led to a set of institutions that now are “too big to fail” and that engage in a type of Wall Street capitalism that Paul Krugman has called “heads I win, tails you lose.” The “I win” part of that principle led to an average annual compensation of \$590 million per person for the top 50 Wall Street investment bankers in 2007. The “you lose” part of that same principle has dealt the taxpayers a multi-trillion-dollar bailout bill. In short: we see the privatization of profits and a socialization of losses as a way of making business that has not changed in the least since the bailout interventions from governments around the world.

Those are the symptoms. But what is the bigger picture here? What is the real function of money? How does the financial sector relate to the real economy? When the profits of the financial sector jumped from below



16% of domestic corporate profits (1973–1985) to 41% in the first decade of this century, did the financial sector really add that much more (or any) *real value* to the economy? When the Fed lowered the interest rate to 1% in 2003, which in turn pumped enormous amounts of money into the economic system and sparked a \$30 trillion stock market boom from 2003 to 2008, did the financial sector create \$30 trillion worth of *real economic value*? Or was it just another bubble? When that bubble burst, and the same \$30 trillion got wiped away (plus an additional \$10 trillion or so in the housing market) during the following 12 months, was that \$40 trillion of *real value* destroyed?

What we forget when we hear Wall Street bankers talk about the “value” they “create” is a simple truth: money is not a commodity. Money has *no value* without the real economy that it relates to. Imagine an economy based on Wall Street but no Main Street. It’s worth nothing. Now imagine the reverse: Main Street without Wall Street. Now you see an economy where people still produce and consume goods and services, but they lack the connective tissue that money provides. Hence they quickly turn to bartering, alternative currencies, or cell-phone- or Web-based ways of directly linking borrowers and depositors.

If money is not a commodity like other products and therefore needs to be managed differently, what then is it? Money embodies the relational dimension of the economy.

Money gives us the right to buy and consume a certain fraction of the value (goods and services) that

the real economy has generated in a given period. Money is a medium that keeps us connected within the globally distributed division of labour. Money is to the real economy what the circulatory system is to the human body. It keeps the parts of the system connected and alive. That means that the institutions that guide the circulation of money through the collective economic body must do so in the same spirit: *serving* the whole system rather than extracting from it and exploiting it. Mindlessly pumping money into a system that leads to a \$30 or \$40 trillion bubble does not serve the real economy (although it may earn the chairman of the Fed reappointment). Extracting profits from the real economy that rise from 10% to 41% of domestic corporate profits does not serve the real economy either. Extracting a paycheck of more than half a billion dollars per year also doesn’t serve the real economy. It’s obscene. All these behaviours do the opposite of serving the whole economic system; they are looting it.

The core of my argument, though, is not aimed at individual ethics. It is aimed at systems design. Today we have a system that accumulates an oversupply of money and capital in areas that produce high financial and low environmental and social returns, while at the same time we have an undersupply of money and capital in areas that serve important societal and community investment needs (high social and low financial returns, such as the education of children in low-income communities). According to McKinsey Global Institute (MGI) the world’s financial markets are struggling to find investment opportunities for \$167 trillion in global “liquidity” in 2006.²² That sum was at an unprecedented level, roughly 3.5 times the aggregate global GDP of \$52 trillion. The Deputy Secretary of the U.S. Treasury, Robert Kimmitt, estimated the figure at \$190 trillion.²³ That’s the situation now: we’ve got too much money where we don’t really need it (190 trillion seeking high financial and low social returns), and we don’t have enough invested

EXTRACTING A PAYCHECK OF MORE THAN HALF A BILLION DOLLARS PER YEAR ALSO DOESN’T SERVE THE REAL ECONOMY. IT’S OBSCENE. ALL THESE BEHAVIOURS DO THE OPPOSITE OF SERVING THE WHOLE ECONOMIC SYSTEM; THEY ARE LOOTING IT.

where we urgently need it (in the ecological, social, and cultural commons in both the global North and the global South). That's like having a circulatory system that pumps all the blood into the arms and legs while the brain gets none.

Why is that so? Because the current system is designed to do just that. Because that's how it's designed. We need to rethink and redesign the system so that it is better balanced and serves society as a whole. We need to replace the current extraction-based financial system with institutions that support the real economy and serve the needs of ecology and the community.

What are practical examples of rethinking money so that it better serves the real economy and society? Here are a few. During the 1944 Bretton Woods Conference, John Maynard Keynes suggested a form of "carrying costs" to better balance the surplus and the deficit countries in international trade and currency exchange. The carrying costs would be applied against the surplus countries to work de facto as negative interest (your surplus shrinks). If applied more generally, carrying costs (or shrinking surpluses) could provide incentives to move capital from the high-profit and low-social-return sector to the low-profit and high-social-return-sector of the economy—or even to the gift-giving economy, which provides extremely low financial but very substantial social or ecological returns.

It's what Bill Gates and Warren Buffett decided to do in transferring the lion's share of their wealth to the Bill and Melinda Gates Foundation, which in turn puts it to work in social-mission-driven projects and enterprises. While this is a generous gesture by extraordinary individuals, a redesigned money system could help to address the fundamental imbalance between the oversupply of financial profit-extracting capital on the one hand and the undersupply of regenerative or gift-giving capital on the other hand in a more systemic way.²⁴ A second example is the suggestion to create local or regional *complementary currencies* that would favour the local living economy, which in turn would come with many positive ecological and social externalities.²⁵ A complementary local currency can also help to reduce the risk of periodic currency crises. An example is the Toronto dollar system, which is fully backed by Canadian dollars; participating merchants are free to exchange Toronto dollars for Canadian

dollars.²⁶ A third example is the suggestion to replace Wall Street with more open, transparent, Web-based platforms that would allow lenders and borrowers to interact directly. Says MIT's Phil Thompson: "I would actually use the Web and some of its new social technology in place of Wall Street as a large-scale mechanism for investment and decision-making ... Given the option, people will opt for these participatory financial vehicles rather than the structures we have now."²⁷ A number of first prototypes of such a platform already exist, a few of them, like Prosper, with millions of users to date.²⁸ Summing up, we need to redesign the money system so that it better balances all three major functions of money today: money for consumption to meet basic needs, money for credit and investment to enable business entrepreneurship, and money for public goods and the societal commons.

The result of this better balance will also help to rebalance the ownership asymmetry in which the richest 2% currently own 51% of global assets and the poorest 50% own barely 1% (in 2000).²⁹ A new class of commons-based property rights (that could be specified for both social-mission-based business enterprises as well as to natural and cultural commons) could be a major leverage point to move on this issue forward.

(5) Communities of knowledge creation

The fifth acupuncture point concerns the evolution and use of knowledge and technology, that is, of knowledge-creating communities. Technology is a principal driving force of change in the knowledge-based economy. Over the past few centuries, technology has evolved from serving us as a technical tool (think: a hammer that you use to drive in a nail), to a complex and interrelated system (think: Microsoft Office, which helps you accomplish a set of related activities), to a web-based open architecture, an open-source platform that allows you to join collaborative communities as a creator of content and products (think: Facebook, YouTube, or Wikipedia). Another aspect of the big picture is that the lion's share of global R&D is spent with the goal of commercial profitability, not meeting societal needs (leading, for example, pharmaceutical companies to under-serve low-income populations in Africa or energy and car companies to under-invest in sustainable mobility).

Looking at the big challenges related to climate

change and poverty, we know that two things are necessary: to mobilize or redirect massive public and private investment into the emerging *green technologies* of sustainability-related transformation, and to create access to these technologies such that their use can be instantly leveraged globally (i.e., the access to these technologies is not slowed down by intellectual property rights that prevent their use in areas of the world that need but cannot afford them). Often these technologies will blend high tech and low tech in ways that generate employment and wealth creation locally rather than substituting labour.

The essence of technology and knowledge creation, and the ultimate driving force of the economy, is the same: it is the human capacity to create. The original meaning of the word *technology*, from the Greek *techne*, is “art,” related to the capacity *to create*. The creation of infrastructures that would enable more and more people, and eventually every human being, to connect to their deeper capacity to create is in my view the ultimate goal of technology.³⁰ Among the most important missing “technologies” today are *social technologies* that help groups and stakeholders with diverse backgrounds and interests to create and innovate together. At the Presencing Institute, for example, with that goal in mind we have made the tools of the social technology of “presencing” available as an open source platform by offering it as a free download on the institute’s website.³¹ The creative commons copy-right allows people to use, reproduce, and adapt the material freely and also to form a global community of practice that, operating on an open social networking platform, evolves and scales up very rapidly.³² At first, the wisdom of putting your key products into the public domain might not seem obvious: how can you survive economically if you do that? But when you think about it, if you are in the business of creating social technologies and want to choose an intellectual property right design that most benefits society, what other option do you have? Having made that move, you quickly find that new windows of opportunity open and point you to the next steps.³³

(6) A Global Action Leadership School

The sixth acupuncture point concerns the evolution of leadership and learning. These lines appeared in the *New York Times* in a 2009 Op-Ed by Mark C. Taylor,

chairman of the religion department at Columbia University: “Graduate education is the Detroit of higher learning. Most graduate programs in American universities produce a product for which there is no market (candidates for teaching positions that do not exist) and develop skills for which there is diminishing demand (research in subfields within subfields and publication in journals read by no one other than a few like-minded colleagues), all at a rapidly rising cost (sometimes well over \$100,000 in student loans).” But the problem is not just in American universities. It’s in institutions of higher education everywhere. If Taylor is correct, and if society doesn’t need many of the skills that are taught at the kinds of universities we already have (and if many people can’t pay the price to attend), what would work better? What specific capacities will be mission-critical in this century regardless of whether you go into business, social entrepreneurship, government, journalism, or another line of work? Here is what I have learned about this question. Having spent the past 15 years observing, facilitating, and co-leading change projects in different sectors, systems, and cultures, what strikes me most is that whether it is the car industry, the computer industry, the health care system, the education system, or government, the basic problem is the same: leaders repeatedly respond to problems by pulling all of the usual triggers. But today, more of the same will not be good enough.

Leaders and managers face issues that require them to slow down, and even to stop; and then they need to start really paying attention, listening, reaching out, listening more, sensing what wants to happen, reflecting deeply, and connecting to an inner source of knowing, the inner place of silence where knowing comes to the surface. And leaders and change-makers must do all of that collectively. Then, when a spark of insight or inspiration shows itself, they can focus on that and move with it, quickly creating small-scale prototypes that allow them to explore that spark by doing something, by generating feedback, and by applying what they learn. Those are skills needed today in all jobs, industries, and cultures. And they are skills that, today, can’t be learned on a campus, particularly not as a collective capacity that can be applied in real work communities to complex and difficult issues of social transformation and change. That is the blind spot of higher education today. To fill that blind spot you need

to turn the institution inside out. You need to abandon most of the conventional discipline-based knowledge canons. Those canons still represent the Middle Ages in our time. Then, what will be left? Nothing much.

And that is where the future begins. That nothingness is the place of possibility, where new learning and a new configuration of the university can take place. Here are three sources that I consider critical for the new configuration of the university: (1) societal challenges: specific *societal challenges* like “urban sustainability transformation” that frame action research partnerships and situate cross-discipline and cross-sector engagements; (2) students: the questions, aspirations, and *self-knowing* that students (and faculty) bring to the table; and (3) foundational methods and tools: for example, a *social technology* for dealing with the challenges that citizens, organizations, communities, and leaders face, challenges that require us both to reflect the past and to sense and actualize the emerging future. A strong foundation in methods and tools will enable the student to attend, to listen, to think and reflect deeply, to create generative conversations, to move into situations that are unknown, to empathize with others, to connect to the deeper sources of humanity that are in all of us, to crystallize vision and intention, to prototype the new by creating living examples, and to evolve with the changing environment. Add to that some basics in finance, accounting, systems thinking, and some hands-on media technology, and graduates will be well equipped to take on this century’s leadership challenges in any kind of institutional setting.

These are also the skills that will catalyze and facilitate the global renewal of communities and societal systems. However, today’s university campuses rarely develop the skills and webs of relationships that these types of learning make possible. Yet there are small pockets of people already doing this kind of work—individuals, groups, and networks. What if we could connect these innovative and inspirational people through a global action research university? What if we gave it a name—something like g.school: a “glocal,” green, generative action research university for pioneering economic transformation and renewal—and gave it a presence on many campuses and in many communities? Maybe this network of places and prototypes could breathe some new life into the dying institution of the old university by putting

young people and students into the driver’s seat of social renewal and change.³⁴ Such a g.school would not only prototype the reinvention and renewal of higher education, but also provide valuable practices, methods, and tools to use in the larger task of reinventing and renewing the entire educational system. For whether you are a doctor, nurse, teacher, engineer, or community worker, without the basic skills of paying attention, deep listening, developing an authentic presence, and learning through prototyping it will be more and more impossible to thrive in a societal context that is increasingly characterized by ambiguity, breakdowns, and disruptive change.

(7) A shift in collective awareness that deepens democracy and renews society

The seventh acupuncture point concerns the transformation of ourselves as citizens into co-creators of the evolving economic, political, and cultural system. The big picture here is captured by figure 3.

Figure 3 depicts the communication structures that connect the three main sectors of society: business, government, and civil society. The four circles represent four different types of communication: downloading (one-way, manipulative); debate (two-way, transactional); dialogue (multilateral, reflective); and presencing (multilateral, transformative). When they are applied to the communication structures between the main societal sectors we see the following big picture: In model 1.0 of capitalism the communication structure is limited to the outer two circles.

In fact, over the past decade or so we have seen a lot of type 1 communication across sectors (commercials, propaganda, corruption) at the expense of the other three types of cross-sector conversation. The dramatic pollution of public awareness that results from the downloading style of communication should lead us to do two things: *reduce* (or stop) the noise of type 1 communication and *accelerate* the shift from transactional (type 2) to reflective (type 3) and transformative (type 4) conversations among stakeholders and sectors. This brings us to the next two models.

In model 2.0 capitalism the communication structure includes the three outer circles and focuses on multi-stakeholder dialogue. While there has been much progress along these lines, most of these forms of engagement don’t lead to transformative action,

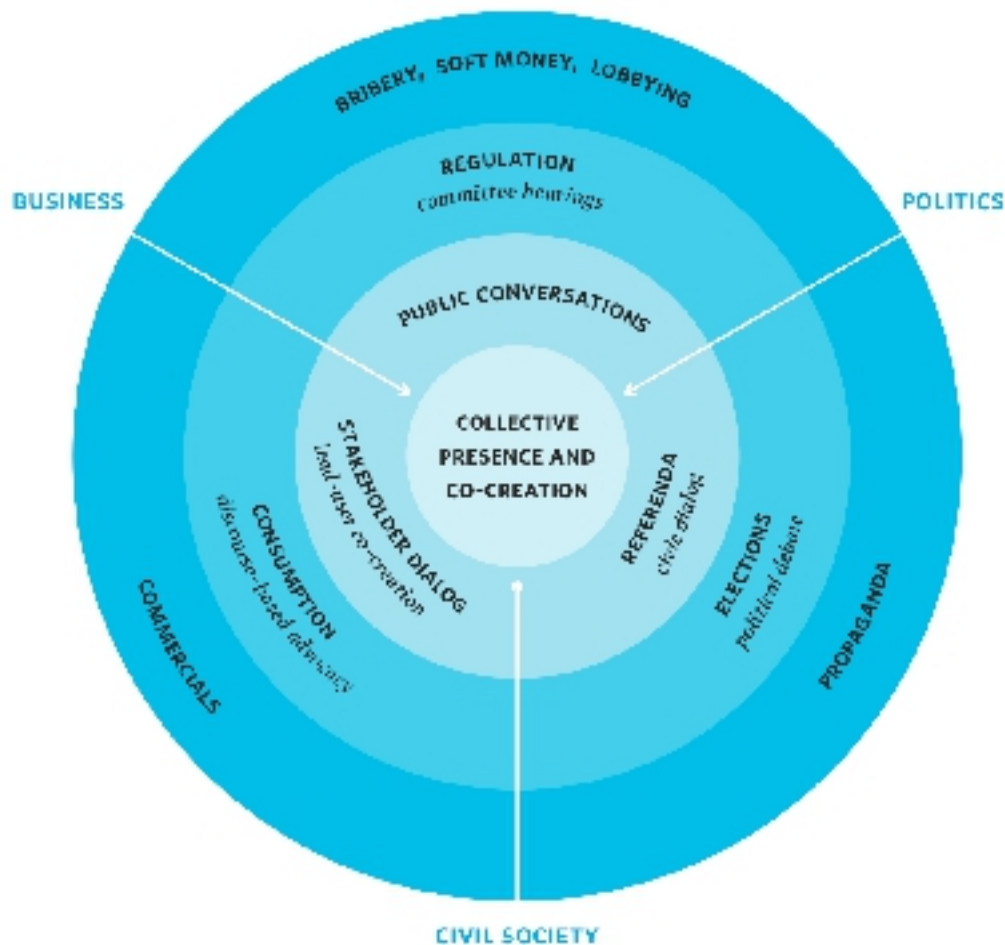


Figure 3: Four types of cross-sector communication: *outer circle*: one way, manipulative (type 1); *second circle*: two way, transactional (type 2); *third circle*: multilateral, reflective (type 3); *inner circle*: multilateral, transformative (type 4); source: Scharmer (2009)

real breakthrough thinking, and collective innovation. Yet, the move from model 1.0 capitalism (with transactional types of conversation) to model 2.0 capitalism (with multilateral, reflective conversation) is a move from ego-system awareness to stakeholder awareness, in which the interests and viewpoints of the other players in the system become relevant. The (as-yet unrealized) 3.0 model of society and the economy includes the three inner forms of conversation. In this model, type 1 practices would cease. Instead, model 3.0 would focus on creating new infrastructures of collective renewal that would seed and support cross-sector initiatives for profound innovation and change. The ego-system and stakeholder awareness of the earlier stages would open up to an ecosystem awareness:

open-minded, open-hearted, and open-willed behaviours that enhance the health of the ecosystem and serve the well-being of all.

Illuminating the Blind Spot

I started this essay by calling our attention to the *intellectual* bankruptcy that underlies the financial and economic bankruptcy of many established organizations and institutions. I suggested that this intellectual bankruptcy is related to how we think about our economic relationships and frame the key concepts of economics. I suggested that the blind spot of economics and economic theory is our own *consciousness*—our structure of attention and state of awareness and how it affects our individual and collective behaviour. I then

outlined seven core questions and seven acupuncture points of shifting the current social economic field.

What this investigation makes clear is that we live in a split reality: on the one hand, new challenges require us to respond and reinvent ourselves in new ways; on the other hand, we are still using institutional arrangements that reflect the economic rationality of the earlier stages (1.0 and 2.0). The American auto industry faces this split reality today: it produces a product for which there is no market and develops skills for which there is diminishing demand, all at a rapidly rising cost. Granted, there are many nuances. Wall Street is different from Detroit, and both are different from the health care system and academia. But some of the basic features are the same.

These institutions and systems respond to the current crisis in largely the same ways (see figure 4 below). They can: 1. React: act based on existing habits of action or thought 2. Redesign: change the

underlying process or structure 3. Reframe: reflect and change the deep assumptions and mental models 4. Regenerate: reconnect with the deeper sources of inspiration and Self in order to reinvent both oneself and the system .

How did the Big Three in Detroit and the “too big to fail” institutions on Wall Street reach the point of no return? Each faced challenges that required them to develop a level 3 (reframe) and level 4 (regenerate) response, but all they could manage was to react (level 1) and redesign (level 2). They did “more of the same.” They focused on short-term returns and basically ignored the long-term implications and risks.

My observations in working with leaders across institutions can be summed up as follows:

1. Most institutions, communities and leadership teams today face challenges that cannot be solved with level 1 and 2 responses (reacting, redesigning).

Levels of and Responses to Change	Micro: ATTENDING (Individual)	Meso: CONVERSING (group)	Macro: STRUCTURING (institutions)	Mundo: COORDINATING (global systems)
1. Reacting →Habits →Rule enacting	Listening 1: Downloading habits of thought	Downloading: Talking nice, politeness	Centralized: Machine bureaucracy	Hierarchy: Central plan, regulation
2. Redesigning →Process →Rule-revealing	Listening 2: Factual, object-focused	Debate: Talking tough	Decentralized: Divisionalized	Market: Competition
3. Reframing →Mental models →Rule-reflecting	Listening 3: Empathic listening	Dialogue: Inquiry	Networked: Relatorial	Negotiation and Dialogue: (Mutual adjustment)
4. Regenerating →Sources →Rule-generating	Listening 4: Generative listening	Collective Creativity: Presencing, flow	Ecosystem: Co-sensing and co-creating	Collective Action Arising from Shared Seeing + Common Will

Figure 4: A Matrix of Crisis Response: 4 Levels of Response, 4 Dimensions of Systems Change
Figure 4 relates these different levels of crisis response to the different dimensions of systems change: the individual (micro); group (meso); institutional (macro); and global ecosystems (mundo).

2. Most institutions and organizations know a lot about operating with level 1 or 2 responses (reacting, redesigning); they often know something about operating with a level 3 response (reframing); and very few know anything about operating with a level 4 response (regenerating).

3. Although many leaders realize that a different approach is necessary today (level 4), their respective efforts are usually limited to individuals and groups in their own organizations and do not include the larger institutional ecology of the whole system in which they operate.

The new responses that are most necessary now cut across all four levels (from reacting to regenerating) and dimensions of systems change (from micro to mundo). These responses require the creation of different innovation and learning spaces in society. If the challenge is to reinvent the dying institutions across sectors—Detroit’s Big Three, Wall Street, or the health care system—there’s one thing we know for sure: none of those groups will be able to do it on their own using the same type of thinking that got them here. They need a new learning and innovation environment that reconnects their leaders with the realities of the larger ecosystem that they want to regenerate.

Co-sensing Infrastructures: Listening the New into Being

The seven acupuncture points focus our attention on seven key concepts that would reframe and reinvent traditional economic theory and practice in the light of the 21st century challenges that lie ahead. In the past, these seven dimensions of societal reality were blank spots in conventional economic theory (“externalities”). In the future, these seven dimensions should be core principles of advanced economic theory and practice.

They are:

- (1) *Coordination: To upgrade the current operating system by introducing a new coordination mechanism (action from shared awareness and common will)*
- (2) *Nature: To design all production - consumption cycles earth-to-earth (in coevolution with the natural ecosystems)*
- (3) *Labour: To upgrade the economic human rights*

that all people can actualize their full human creativity for shared wealth creation and social wellbeing.

(4) *Capital: To redesign money and capital flows such that they serve all sectors of the economic system (including the ones with high social and low financial returns)*

(5) *Technology: To grow communities of creation for generating breakthrough technologies in areas that matter most to society (e.g., green + social technologies)*

(6) *Leadership: To reinvent leadership learning in order to facilitate “learning from the future as it emerges” rather than replicating the knowledge of the past.*

(7) *Public awareness and conversation: Create infrastructure innovations that allow all citizens to become aware of their real power in co-creating an intentional ecosystem economy and in deepening our democracy.*

Each of these seven points is a mission-critical piece of a new enabling infrastructure that could facilitate the shift from capitalism 1.0 and 2.0 to a 3.0 type of systems. The pioneers of the seven acupuncture points need enabling infrastructures that help to meet, listen, learn, and see the bigger picture through each



other's eyes. The new infrastructure would support the collective development and prototyping of institutional innovations that, when tested and refined, could go viral quickly.

It sounds like a lot. But all of these things are already in the making. What they're not doing yet is mobilizing more collective action or being leveraged as a *set* of interrelated acupuncture points. Again, I use the term *acupuncture* to emphasize that the transformation requires a *set* of interrelated system interventions, as in the application of acupuncture in traditional Chinese medicine. The treatment is designed to stimulate the resilience of the bodily organism as a *whole*. That is similar to what we need to do for the collective social body, the social field.

Working to heal and evolve the collective social body is even more challenging than working with the individual human body because, among other things, *we* are co-creating it moment to moment. The so-called laws or invariances of economics and social science are unlike those of science and nature. The "laws" of society are determined by people's awareness, and as their awareness changes, so can their behaviour and the laws that govern it. Which brings us back to the blind spot: the quality of consciousness that we share as human beings. Viewed from this angle, science might appear to be another "Detroit" that needs to be revived. While the main focus of conventional scientific activity in economics and the social sciences has been on discovering and describing invariances (and thereby freezing the status quo in society), we at the MIT Green Hub and the Presencing Institute (and many of our colleagues and partners in other places) believe that the essence of scientific activity in our age should be *to identify and transform the invariances in human behavior*³⁵—that is, to investigate the conditions that will allow us to *transform* the patterns of the past.

THE SO-CALLED LAWS OR INVARIANCES OF ECONOMICS AND SOCIAL SCIENCE ARE UNLIKE THOSE OF SCIENCE AND NATURE. THE "LAWS" OF SOCIETY ARE DETERMINED BY PEOPLE'S AWARENESS, AND AS THEIR AWARENESS CHANGES, SO CAN THEIR BEHAVIOUR AND THE LAWS THAT GOVERN IT.

That is what the proposed g.school would be about. As envisioned, the g.school will apply a form of action science that serves and supports the great global transformation that we are living at this moment. Its curriculum will be practical because it is grounded in action learning that is connected to a global network of profound social change initiatives. And it will provide a personal and at times even spiritual experience because it will link practical change work in a field with inquiry into the deeper sources of our humanity and creativity—who we are as human beings and what future we collectively want to create on this planet. ■

1 I thank the Nathan Cummings Foundation for generously supporting this paper and research project.

2 Simon Johnson, "The Quiet Coup," The Atlantic, May 2009 (<http://www.theatlantic.com/doc/200905/imf-advice>).

3 The research group was formed in January 2009 and has conducted 30 interviews and one local living economy immersion journey to date. The results will be posted and regularly updated at: www.tc.presencing.com.

4 The first MIT Green Hub Roundtable took place June 8–9, 2009; the second is planned for Sept. 21, 2009.

5 For a fuller explanation of what is meant by capitalism 1.0, 2.0, and 3.0, see the book by Peter Barnes, *Capitalism 3.0* (San Francisco: Berrett-Koehler, 2006). See also the work by David Korten who described the evolution of the economic system in related terms, for example in his book *The Great Turning: From Empire to Earth Community* (San Francisco: Berrett-Koehler, 2006).

6 I use the terms capitalism 1.0, 2.0, 3.0 a little differently from the way Barnes does. My focus on the stages is based on the differentiation of new coordination mechanisms, as explained below.

7 Karl Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time* (Boston: Beacon Press, 1944, 1957).

8 Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* ([1776] London: Methuen & Co., Ltd, 1904).

9 See as an example the Sustainable Food Lab, a

multi-sector initiative that includes more than 70 organizations (<http://www.sustainablefoodlab.org/>).

10 For a detailed discussion of state shifts in human awareness across social systems, see O. Scharmer, *Theory U: Leading from the Future as It Emerges* (San Francisco: Berrett-Koehler, 2007).

11 For more detail, see *ibid.*

12 I owe this idea to a lecture that the peace researcher Johan Galtung gave during the Peace Studies Around the World program in 1989–90, which he jointly organized with a group of students from ten different countries (and which I co-led).

13 Polanyi, *The Great Transformation*.

14 Paul O. Hawken, *Blessed Unrest: How the Largest Movement in the World Came into Being and Why No One Saw It Coming* (New York: Viking, 2007).

15 For a detailed discussion of the terms open mind, open heart, and open will, see Scharmer, *Theory U*.

16 United Nations Environment Program, *New Science and Developments in Our Environment*, UNEP Yearbook 2009 (www.unep.org/geo/yearbook).

17 See interviews with Rebecca Henderson (2009), and Jeffrey Hollender (2009) (www.presencing.com).

18 <http://www.dannwisch.com>.

19 [missing] data.

20 See http://www.footprintnetwork.org/en/index.php/GFN/page/world_footprint/.

21 Bernhard Lietar, interview in Brandeins, [missing] full reference.

22 http://www.mckinsey.com/mgi/reports/pdfs/Mapping_Global/MGI_Mapping_chapter_1.pdf

23 Public Footprints in Private Markets Sovereign Wealth Funds and the World Economy”, Robert M. Kimmitt, *Foreign Affairs*, January/February 2008

24 At the root of the issue that the Keynesian concept of carrying costs addresses is the problem of compound interest—that is, “money breeds more money.” New designs of money systems that are more externality-aware will have to address this systemic root issue one way or another.

25 Lietar interview.

26 <http://www.torontodollar.com>.

27 Interview with Phil Thompson (2009), [missing] URL

28 http://www.prosper.com/welcome/how_it_works.aspx.

29 United Nations University, World Institute for Development Economics Research, “Personal Assets from a Global Perspective” (http://www.wider.unu.edu/research/projects-bytheme/poverty-inequality/en_GB/personal-assets-from-a-global-perspective/).

30 Martin Heidegger, *Die Technik und die Kehre*, 9th ed. (Stuttgart: Verlag Gunther Neske, 1996).

31 See www.presencing.com.

32 In this instance the new opportunity created by putting “presencing” in the public domain was the creation of an online capacity-building program that serves the user community through a “global classroom.” While the tools are free, the capacity-building program is offered for a fee, which most people are happy to pay; scholarships are available as well.

33 In this instance putting “presencing” in the public domain created an online capacity-building program that serves the user community through a “global classroom.” While the tools are free, the capacity-building program is offered for a fee, which most people are happy to pay; scholarships are available as well.

34 For a more detailed description of this proposal, see g.school@MIT: glocal, green, generative action learning for pioneering economic transformation and social renewal, June 2009, Cambridge, MA.

35 Johan Galtung, *Methodology and Ideology: Theory and Methods of Social Research* (Copenhagen: Ejlers, 1977).

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