THE NEW ECONOMICS 101 True Wealth in the New Economy

[Transcript]

INTRODUCTION: ECONOMIC AND CLIMATE COLLAPSE

Juliet Schor: I think as you're all aware, in 2008, global capitalism shattered. The financial system came close to a total collapse. Fifty trillion dollars of wealth was erased almost overnight, and economic pain drove people out into the streets all over the world. Since then, we've had a deep reception, a tepid recovery, and widening economic disenfranchisement.

Among the high school graduates who have left school since the recession, only 16 percent have found full-time work, and nearly 40 percent are still looking for jobs. Twenty-five million Americans are either unemployed, underemployed or marginally attached to the labor force. That's the equivalent of the population of a medium-sized country. Poverty rates are climbing to levels not seen in half a century. It's estimated that one in six American households now lives in poverty, and 45 million Americans are on food stamps.

Now the national conversation about how to solve this problem has been deeply frustrating. It is dominated by differences between 1930s Keynesianism and conservative calls for austerity, which means it's confined to a narrow conversation about how much the balance of market and government should change. We're barely talking about the vital questions of the distributions of income, wealth, and property, about the norms that govern markets or about how investment decisions should be made.

But there is an even more important reason that the current conversation is failing, and that has to do with what's happening to the planet. During the same time that the global economy went into free-fall, and in the year since then, the news on climate has gone from bad to worse to catastrophic. A growing number of scientists have warned that carbon dioxide levels beyond 350 parts per million in the atmosphere are incompatible with preserving a planet "similar to that on which civilization developed." But we are already at 396 and rising. And the speed of climate change is well beyond anything envisioned by the last round of published models by the IPCC.

Arctic sea ice is melting at hither-to unimaginable rates, and today's news is that the Greenland ice-sheet underwent an almost unfathomable rapidity of melting in mid-July, from 40 percent at the beginning of a few day period to 90 percent gone a few days later. Nine of the 10 hottest years on record have occurred since 2000, and 2012 is on pace to be the hottest year yet. Extreme and weird weather has taken hold all over the world. Last summer, 56,000 Russians died as a result of wildfires. And of course in the U.S. this summer, burned acreage from wildfires has also reached record levels. Somewhere in the world, new limits are being set as localities get drier, hotter, wetter, colder, snowier, stormier. Climate is being destabilized.

And of course climate change does not just affect weather. We rely on climate for food and water. Australia recently ended its worst drought in history. The U.S. has now experienced the

widest drought that it has had since the 1950s with 60 percent of the country now living in drought conditions. Grain yields are predicted to plummet, which will push up global food prices that have already seen record levels in recent years. As we destabilize the climate, we will increasingly be unable to feed ourselves, and that will trigger a range of ugly outcomes.

Climate destabilization is also exacerbating other threats that are ongoing to global ecosystems. Dead-zones are proliferating in the oceans, farmland is morphing into deserts, and we are well into what scientists describe as the sixth mass extinction of bio-diversity. If current trends continue, some scientists predict that by 2050 the oceans will be devoid of fish, which is the animal protein on which one billion people in the world rely for their primary protein source. Yet it is as if the people charged with tending the economy have been completely unaware of what is going on with climate and the planet. The main conversation has been about how to put more money back into peoples' pockets to get them back to buying cars – any cars – building houses – of any size – and accumulating more stuff. The disagreements are mostly about whose hands to put the money into – the super-wealthy, the merely well-to-do, the middleclass. The focus is on what I call indiscriminant growth – a trickle-down approach to jobs, but we know that trickle-down economics does not work.

Four years after the downturn, we remain trapped in an economic framework that relies on reviving a highly destructive pattern of production and consumption – and the fiction that our economic system is basically sound. As the world hurdles toward an ecological precipice of unfathomable dimensions, the mainstream economic conversation has been about how to get us there faster.

A DIFFERENT VISION FOR THE FUTURE

This evening, I will offer a vision that addresses both our economic and ecological predicaments. It lays out the logic of a small-scale, low impact, time affluent, high satisfaction alternative to what I call the Business-As-Usual Economy or what I will refer to as I go on as the BAU Economy or the BAU Market. It begins from the premise that standard solutions, such as the attempts to maximize indiscriminant growth, have become problems and that without a more thorough-going reorganization of our economic lives, we will fail on many fronts – from solving unemployment and poverty to improving the distributions of income and wealth and saving the planetary home. Surveys I have done support the view that the average American understands that our way of life is not sustainable, but the elite discourse has not yet absorbed that point.

Like most of the sustainability visions that have been offered in recent years, mine requires that we adopt cutting-edge green technologies. Most importantly, we must get off fossil fuels as rapidly as we can. That's key to averting climate catastrophe. It will involve capping carbon use. It will require the pollution sector to be made to pay for the havoc they have reeked through taxes, fees, and a commitment to leave the dirty fuels in the ground. But that won't be enough. Getting off fossil fuels will take some time, and in the meanwhile we also have to address the demand for energy. If we continue with Business-As-Usual, with respect to demand for energy, we won't succeed either in achieving a true energy transition, maintaining the climate at the two-

degree warming increase or less or with preserving the endangered ecosystems around the world that we depend on.

What the requirement to address energy demand really implies is that we need to do more than to just change our technology, the terrain on which the conversation is currently stuck. We must also introduce a different rhythm of work, consumption, and daily life. We don't just need an alternative energy system. We also need an alternative economy.

That may sound utopian. After all, the economy and the government remain firmly ensconced in the hands of a small number of powerful corporations and individuals who have made it clear they have no interest in curing what ails the U.S. or in averting climate catastrophe. The criminal enterprises that go by the name of energy companies – Exxon, BP, Koch Industries or the coal companies, the big financial institutions that finance this dirty energy, the industrial agriculture system, and a variety of other powerful blocks and individuals have taken us backwards, reneging on earlier promises. The energy companies especially understand climate change. They see that trillions of their assets are in jeopardy of being made worthless and are spending desperately to stop other people from realizing that.

To reign them in we need campaign finance reform. We need an awaken populace and a powerful social movement to take back the government. But that movement hasn't developed yet, and meanwhile the climate clocks are ticking. What I am suggesting is a way forward that allows us to do what we can now at a scale where change is possible while we push for something larger. One of the premises of my argument is that individuals, communities, cities – even some states – can get started on creating the new economy today. Taking the first steps does not already depend on having achieved total systemic change or undoing the gridlock in Congress. Those are essential, but while we engage in those efforts, households and communities can also begin to take their economic futures into their own hands, and millions are already doing that.

BASIC PRINCIPLES OF PLENITUDE

There are four principles to my vision. The first is a new allocation of time. We've got to reverse the decade-long move toward longer hours of work – a trend that has propelled what I have called the "work-and-spend" cycle. Work-and-spend has not only yielded exhausted, indebted households but more unemployment, as hours are concentrated in fewer and fewer people and higher carbon emissions. As I will explain shortly, my research shows that carbon-use and hours of work are closely linked – a fact that has not yet been recognized. Moving forward by funding hours reductions through productivity growth is at the core of this model.

The second principle is DIY or "Do-It-Yourself" or self-provisioning. People can use the newfound free time that they get from following Step 1 to reduce what they have to buy on the market and provide for themselves in low-impact ways. Millions are already doing this. Self-provisioning not only gives people more freedom from a destructive and increasingly unreliable market, but it can help propel a more local, human, smaller-scale, greener, and fairer economy.

The third principle is an environmentally aware approach to consumption, which emphasizes the recirculation and reuse of goods, sharing, and the creation of a new consumer culture.

And finally, we need to build new investments that are held widely and publicly. One casualty of rising inequality and an intense market orientation is that community has gotten thinner and human ties weaker. By recovering hours, individuals are free to fortify social networks and build common property.

I use the term "plenitude." In order to call attention to the inherent bounty of nature that we need to recover, it directs us to the chance to be rich in the things that matter to us most and the wealth that is available in our relations with each other. Plenitude involves very different ways of living than the maxims that have dominated the economic discourse for the last 30 years. It starts from our grim ecological and economic situation, but it is not a paradigm of sacrifice or despair or desperation. To the contrary, it involves a way of life that will yield more well being than sticking to Business-As-Usual, which has led both the natural and the economic environments into decline. It is hopeful, upbeat, and solutions-oriented. I believe that's essential to success today.

THE LIMITS TO GROWTH

But before getting into the specifics of the plenitude model, it may be worth revisiting the debates about ecology and economics that have been ongoing for many years. In the early 1970s, a group of researchers at MIT developed a model that if we continued along the trajectory we were then following, by the first decade of the 21st century, there would be the beginnings of significant collapse.

The "limits-to-growth" and subsequent collapse narratives were based on two major ideas. One is the exhaustion of what are called nonrenewable resources. Peak oil was the most important, but other minerals were also part of the story. Now their second idea has proved more enduring, which is that renewable resources – ecosystems such as forests, oceans, and the climate system itself – were in jeopardy. Their argument began from a simple and an increasingly commonly held trope – that you can't have infinite growth on a finite planet. Eventually ecosystems would be overwhelmed with pollution and degradation.

Although many scientists signed on to the limits-to-growth perspective, the discourse was dominated by the pro-growth, pro-market, neo-liberal forces for the next three decades. These people argued that GDP could "dematerialize." That is, every dollar of growth could be associated with less and less in the way of materials-flows or carbon in the case of energy.

Indeed, this camp argues that capitalism is already in the process of "greening" itself and that this technological transformation will be sufficient to achieve sustainability. Changing the system itself is not necessary. Indeed, the profit mode of the market, highly concentrated ownership of property and investment decisions and growth itself are all seen as beneficial for the sustainability transformation. That's the so-called "green growth" perspective. But can this be right? Are there no limits to growth? Do we not need a new economy?

So far, capitalism's green potential has proven to be rather limited. Dematerialization has not happened. We can measure this by the growth of carbon use, which is soaring, as well as by total material flows, a new measurement that social scientists have just started to collect on a regular basis. Based on the track record to date, one would have to say that the economists and the ecomodernizationists – that's what they are called in sociology – have been far too optimistic. Ecological overshoot continues apace.

Conversely, other approaches have been too pessimistic, including the so-called treadmill of production paradigm, which comes out of Marxism. They argue there are inherent dynamics within a market system, which make ecological protection almost impossible.

I think the truth lies closer to a third paradigm that believes that both the optimists and the pessimists have overstated their cases. The new economy movement believes that the system won't green itself, but that we can build a different one that can.

DEMISE OF THE BAU ECONOMY

In recent years, this view has gained adherence, not only for ecological reasons but also because forecasts about the economic road ahead are rocky. One of the core principles of plenitude is diversifying out what I call that BAU economy – the "business as usual" economy – and it is predicated on the view that for most people BAU will increasingly offer fewer options, lower returns, and higher costs. It's a bad deal getting worse.

Consider profits – the pool of value from which higher living standards are funded. Profits tend to have long swings, in addition to short-term ups and downs. From 1948 until 1982, the long-term trend was down. Profits were so low during the stagflation of the 1970s that business revolted and induced government to undertake a major restructuring, which began in the early 1980s. As a result of this restructuring, profits began to rise and continued rising until the 2008 downturn. It's likely we're on track for another decade of down, particularly for U.S. operations. That means there will be less income available for individuals and households. We've already been in three years of what the business press calls the "new normal" – lower growth and reduced earnings.

The dominance of the United States is also on the wane. For decades, the country has benefited from its special position. Americans could live beyond their means with a whopping trade deficit because others have been willing to accumulate the dollars that flow outside the nation's borders. But the economic collapse made foreign investors and central bankers nervous about all currencies, including the dollar. American workers have long enjoyed a wage gap relative to those in poorer countries. However, companies have used the downturn to reduce compensation and locate even more jobs offshore.

As we move forward, the fatal flaw of the current growth regime, climate change, and other ecological limits will increasingly rear its ugly head. These problems have already started to affect the bottom line with whether another climate related losses, reducing profits, and incomes.

We're also up against some of the factors that triggered global problems in 2007 and 2008. The prices of food and energy appear to be on a long, upward climb as would be expected in a world reaching ecological limits. The index of primary commodities, which includes wood, metals, minerals, fuels, food, and other inputs, rose 23 percent a year between 2003 and 2007. At no time in the last sixty years have commodity prices risen so rapidly. After dipping during the downturn, they have now resumed what looks like an inexorable rise. For the average American, European or inhabitant of another country, selling one's labor to an employer or investing in financial assets will yield less, while buying food at a supermarket or traveling on an airplane will become more expensive. The bottom-line is that room to maneuver in the BAU economy is narrowing. We're faced with a choice between stagnation, and the softer prices of commodities, or growth, with high prices and mounting damages.

PLENITUDE PRINCIPLE 1: REDUCING WORK HOURS

The plenitude path transcends this dilemma and offers us a way out. It's parsimonious in the use of scarce natural resources and the heavy user of what is comparatively in surplus – human creativity, knowledge, technology, and, as we reconstruct it, community.

So the first principle of plenitude then is a new relationship to this declining market. Work-time reduction is absolutely at the core of an economic policy that will both solve our unemployment problems and reduce carbon emissions. The importance of work-time reduction becomes clear as we consider our economic history. Between 1870 and 1970, the U.S. was on a trajectory of declining hours, and it was not just the U.S. which was on this path. All of the other industrialized countries did the same thing. But beginning in 1970, the U.S. diverged from those other nations and from its own historical path. Annual hours began to rise, and, before the downturn in 2008, the average American worker was putting in an extra 200 hours per year of paid employment in comparison to where he or she was in 1973.

The average U.S. employee was on the job almost 300 more hours than many Western Europeans. In that year, the gap with Germany was 296, with France 264, with the Netherlands 320 hours. What those differences mean is that a U.S. employer needs to generate anywhere from four to 24 percent more revenue to hire an additional worker than his or her Europeans counterparts. For the countries with the biggest hours gap, the U.S. economy is producing four new jobs for every five created in those short-hour countries, where, by the way, the collapse of 2008 generated almost no unemployment. Whether we look at our own historical experience or to other nations, the anomalous trend of rising hours in the U.S. has hobbled us with respect to both preserving jobs and creating them. High hours unfairly concentrate hours in too few people. This has become a key driver of poverty because the poor have too little work. High hours also create stress, reduce the quality of life, and undermine community and democracy.

In the 1980s, the Dutch addressed their high unemployment by offering new government employees a four-day workweek at eighty percent pay. It was a savvy policy, which allowed 20 percent more young people to get jobs than the Business-As-Usual policy would have. It's a good way to begin because youth are bearing the brunt of the unemployment crisis. Today, the Dutch

have not only the lowest hours in Europe, super-high labor productivity, and a successful economy, but they also have a carbon footprint that is 63 percent of the U.S. footprint.

Now, it is important to know that this "80 percent solution," as I call it, does not take away income from people that they are already attached to. That's a bad way to design work-time reduction. Instead, it starts new hires at lower salaries than they would get if they started at 100 percent time. That's a psychologically and practically much easier way to manage transition to shorter hours. But we can do more than the 80 percent solution. If we build in the principle of using productivity growth to fund reductions in work time for people who already have jobs, rather than using productivity increases for higher profits or wages, people can experience steady incomes with growing leisure time.

The U.S. has had a productivity resurgence over the past decade, with especially high rates of productivity growth since 2000. That may be a surprise to you, and that's because all of it has gone to profits and not to wages. But what if we gave it to people in the form of shorter hours of work? That's a bounty that can be used to fund a shift out of Business-As-Usual. We can get a given level of production with fewer and fewer hours. Why not take that opportunity?

There is good evidence from behavioral economics and from studies of happiness that people are far less attached to income they don't already have than income they've got. In addition, once people are out of poverty, incremental income does less to improve well-being than people imagine and much less than economists typically have assumed. And there are other ways to reduce hours. According to the surveys I've conducted, as well as those of others, many higher income employees would welcome the opportunity to trade a day's pay each week in exchange for a three-day weekend – especially if they're parents. The desire to trade money for time is strongest when people won't be punished, in terms of their career trajectories or future opportunities. Again, the Netherlands has been a leader in this regard, legislating the right of workers to reduce their hours without career penalties. Job-sharing, upgrading part-time work, and long vacations are other ways to reduce hours, increase employment, and make people better off.

Work time is also key to cutting carbon emissions. In a study I conducted recently, using data from 29 high-income countries over the years 1970 to 2007, we found that when employees worked fewer hours per year, the carbon footprints and the carbon emissions of their nations are lower, and the reverse also holds. The high hours countries have high carbon footprints.

We believe there are two reasons for this relationship. The first pertains to the scale of the economy. High-hours countries are growing closer to their maximums, taking less of their economic dividend in free time. By contrast, countries like Germany, France, the Netherlands, while still extremely rich by international standards, aren't expanding the size or scale of their economies as rapidly as they would be if their workers spent more time in factories and offices. The second reason is that having more free time changes what people do in their daily lives. Households that are time-stressed live in more carbon-intensive ways. Travel mode is the most obvious choice here. Getting places faster requires more carbon. Think of the differences between walking, cycling, public transport, driving, and flying. The faster you go, the more fuel you use. But even controlling for their higher incomes, households that work long hours also do

more things like buy more purchased foods, live in bigger houses. Though it turns out that the impacts of working hours on carbon emissions are quite substantial. For example, if we were to reduce work time by 10 percent, we'd get about a 15 percent reduction in the nation's carbon footprint. Bigger work-time reductions yield even bigger impacts. So it's a kind of triple-dividend policy. Shorter hours of work reduce unemployment, reduce carbon emissions, and improve people's well-being.

Now, how can we make this transition in such a difficult time when it seems like the pressure is on to work longer and harder? Well, we build support for the kinds of labor market changes I have suggested – new hires at 80 percent, income trade-offs, productivity into shorter hours. We could also take advantage of some of the work-time developments that are already happening. There are more than an estimated eight million people who are on part-time schedules because they can't find more work. The more we can do to make it economically and socially feasible to live well, while only working part time, the easier it will be to transition more people into shorter-hours schedules.

PLENITUDE PRINCIPLE 2: HIGH-TECH SELF-PROVIDING

That's where the next two principles of plenitude come in. They facilitate access to goods and services without having to lay out much money.

So plenitude's second principle is what has been called "high-tech self-provisioning." Self-provisioning means to make, grow, or do things for oneselves. If people are working fewer hours in the BAU economy, they can use the time that is freed up to meet their needs though self-provisioning. This allows them to increase their consumption, reduce dependence on cash income, become more self-reliant, build skills, and exercise creativity.

In the U.S. these kinds of activities have become newly popular, especially since the economic collapse, and especially newly popular among more highly educated people. They are typically very green activities with low carbon and low eco-footprints. Examples include growing food, raising poultry, bee keeping, and the whole phenomenon of urban and suburban homesteading. It includes small-scale generation of power through solar and wind, ecofriendly home construction, arts and crafts, clothing, and the manufacturer of small household items at a household or community scale.

Part of why this is happening is that the downturn has shifted the balance between time and money, giving people more time and reducing their access to cash. That's the difference between a boom time and a stagnation time. That leads naturally to more DIY and more self-providing. This trend is also related to the growth of what is called peer production on the Internet, where people have gotten used to doing things for themselves or in groups, whether it's writing open-source software, making or posting videos, or collaborating on collective projects.

Now, today's DIY movement is different than those of the past because it incorporates a high-tech dimension. A lot of the activity is web-enabled and speaks to the need to self-provision in efficient, high-productivity ways. New agricultural knowledge and the invention of affordable

smart-machines – many of them at small scales, so-called fab-lab machines – make it possible to turn small-scale provisioning into a high-productivity and economically viable use of time.

Now, mainstream economists have typically argued that people should specialize in one activity in the market, earn money from that, and purchase everything else that they want and need. As I argued earlier, I believe we have reached a point at which further specialization does not make sense and that a diversification of activities and income streams is a smarter way to go. Why?

Well, one reason is, as I argued, that market returns will be lower in the future. Another is uncertainty and future catastrophic events stemming from both financial instability and ecological instability. Both climate and economic fragility mean that reliance on the market is more risky. Being able to meet one's needs, even in the event of market collapse or climate catastrophes, increasingly becomes a smart strategy. Doing that on a community level is even smarter than as an individual. And this is what initiatives such as the transition-town movement are directed to – that kind of local self-reliance. But even aside from this insurance function, as we might call it, there are other good reasons to think that a rebalancing between market and the so-called informal sector, or the non-market sector, make sense.

One is that the productivity potential of hours outside the market is rising. If self-providing meant going back to the technologies and ways of doing things of the nineteenth century, the mainstream economists would be right. It's a net loss. But now, there are newly available technologies, knowledge, and web-based innovations that enhance the productivity of labor at a household and community level. We are all aware of these in the realm of information, software, and culture. There's a vibrant peer-production model that has developed high-value products, like Linux and Wikipedia, Firefox. Self-production in music, video, ads, writing has exploded, and people are sharing and learning new skills, enjoying the opportunity to be creative, and producing real value to be used by others.

The self-providing model takes this activity and extends it to the material world, to the offline world, to food, shelter, power, clothing, small manufactures. It's been dubbed the open-source hardware movement. The point is that the model that began in information and culture should not be ghettoized in those sectors. It's relevant across the board. What's key about the new form of self-providing is that it is high-productivity because it is knowledge intensive. It employs high technology in both computers and ecology to raise the productivity of labor.

The model of retrieving labor-time from the market and putting it to work at the household and community level under different economic principles also makes sense because the economics of scale have changed. What computerization and the development of the web have done is to make small-scale production much more efficient. After all, think about the change in scale from the first computers, which took up entire rooms like this, to the computing power that is available literally in our laps or now in our palms.

I think this point is of vital importance. The rise of information technology has transformed micro-enterprise from a romantic throwback to a smart, 21st century strategy. Indeed, the massive command and control institutions that we call corporations no longer possess the advantages they once did. Small companies are where the dynamism and the employment growth

is coming. Extend this insight farther, and we see that there are new possibilities at the household and community level for creating a high-productivity, local, green economy.

A key aspect of these self-providing activities is that they are low footprint and, therefore, a central contributor to solving the climate problem. Furthermore, as people learn how to make things, they develop skills and affinities for particular activities, and then turn these into businesses and careers. Self-providing becomes one mechanism for expanding a sector of small, green businesses, and those become the basis of a new sustainable economy. High-tech self-providing is a transitional strategy to get out of BAU.

I'll end with briefer discussions of the last two principles.

PLENITUDE PRINCIPLE 3: TRUE MATERIALISM

The third principle is the building of a new consumer culture that I call "true materialism," which respects the materiality of goods and the fact that their production involves the destruction of nature's bounty and beauty. The key here, in addition to avoiding high-impact lifestyles, is to reduce the purchase of new items and promote economies of reuse and exchange.

A silver lining of the recession is that it has dealt a sharp blow to what I call the "fast-fashion" model. The average American before the bust was purchasing 67 new pieces of apparel every year – one every 5.3 days. Well, that's changed since the downturn. Instead, there's a growing range of new consumer innovations: swapping and selling of a wide range of goods, such as apparel, which is where a lot of the new swapping economy began, but also books, toys, DVDs. People are car-and-ride sharing. They're using AirBnB, which is a peer-to-peer bed and breakfast service. There are neighborhoods which are doing tool sharing. There are soup collectives and food-swap organizations, community gardens, CSAs. Social innovation around concepts of sharing commons – barter, informal exchange, neighborhood exchange, reuse, resale – are changing huge swaths of the consumer economy. Together, they are transforming the way many people, particularly young people, are living and are procuring goods and services. They merge the production and consumption side, and they're much lower footprint.

PLENITUDE PRINCIPLE 4: ECONOMIC INTERDEPENDENCE

The final plenitude principle is to build economic interdependence among people or wealth in our relationships with each other. These activities overlap with some of those I just mentioned and include not only sharing schemes on the consumer side but also time exchange or time banks, local currencies, skills transmission.

But the building of economic interdependence is also occurring in the emergence of a range of new enterprises founded not on traditional private ownership but on various forms of collective holdings. These include models such as the Evergreen worker cooperatives in Cleveland, a set of worker-owned green businesses that are supported by major anchor institutions in the city – the medical complexes, the educational institutions, the foundations.

This model has generated tremendous interest around the country, and versions of it are in the planning stages in a number of cities. But it's not only worker co-ops that are thriving. We're also seeing consumer co-ops, land trusts, other kinds of property held in common – co-housing, community development corporations, municipal utilities, and public enterprises. These forms of property are rooted in communities and social networks. As Gar Alperovitz has persuasively argued, they already represent and command large sums of money. If they are channeled to common purposes, such as carbon reduction, employment generation, and wealth distribution, these public forms of wealth holding could be a strong foundation for the emergence of a new pluralistic, small-scale, low-carbon, high-welfare economy.

CONCLUSION: A NEW MOVEMENT

I will close with an observation. I have described the outlines of a new economy that is rich in time, that is low-impact, and that I argue will yield high satisfaction. But the plenitude idea that I have been discussing is not just one scholar's vision of a good direction to move in. It is already a living, breathing entity that is growing in size, scope, and sophistication every day. It is made up of sustainability activists, conscious consumers, low-income city residents who the formal economy has abandoned, casualties of the 2008 downturn, young people increasingly committed to a sharing and commons philosophy, and advocates of the peer-production open-source movement in the tech world. I also include here the de-growth movement, which is gaining momentum across Europe, and consists of academics and activists explicitly challenging the growth imperative within western capitalism. The plenitude movement includes groups such as "bioneers," so-called biological pioneers, the transition town, BALLE, the business alliance for local living economies, much of the alternative food movement, the local currency movement, and the DIY and so-called maker movements. What most of these groups share is a commitment to local, small-scale, low-impact production and consumption, expanded motivations for economic activity than just profit, belief in fairness, democracy and community, and a rejection of the dominant consumer culture.

Only through a social movement that counters the concurrent destructive paradigm can we hope to return to a safe way of life on the planet. I believe this new emerging economy represents that hope. We've got to take it seriously. We've got to believe in it. We've got to get going on it. But if we do, we have a way out of both the economic and the ecological challenges that we face today. Thank you.

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