

## 10 Hypotheses About Abundance and the Commons by Roberto Verzola

[Below is an excerpt of a keynote at the International Conference on the Commons, titled Abundance and the Generative Logic of the Commons.]

“I will present my talk in the form of ten assertions about abundance and its relation to the commons. Some of the ten are quite obvious and uncontroversial. Others may provoke intense debate. Hopefully, they can help clarify the issues covered by this conference.

### 1: The Internet is creating an abundance of information and knowledge

This is hardly news by now. New technologies have made possible a global digital infrastructure, which, in turn, has given rise to a new information economy. This economy has one obvious feature: the abundance of free or low-cost information and knowledge. With few exceptions, I usually find a needed piece of information, skill or knowhow – if it is public knowledge – on Wikipedia, YouTube, a blog, a Web site, or a mailing list somewhere.

Disturbing issues remain, such as inappropriate content, unaffordability, exclusion, embedded value systems, toxic production and e-wastes. But if we are looking for abundance, the Internet definitely has it. To turn this wealth of information into wisdom though, users have to pick true from false, grain from chaff.

### 2: The abundance concept is even more neglected than the commons

The commons concept was denigrated for decades by mainstream social scientists who thought that all commons inevitably collapsed. They made the “tragedy of the commons” a sound-bite. However, the need to manage threatened global commons like the atmosphere, the oceans and biodiversity and the rise of Internet-based commons forced a second look at the rich literature on this topic. The 2009 Economics Nobel Prize award to Elinor Ostrom for her work on the commons put the concept back on the mainstream.

Abundance is even more neglected. The most fundamental assumption in economics is scarcity. This, in effect, assumes away abundance. Thus, most mainstream economists are not prepared to deal with abundance. They have few concepts that explain it. They have no equations that describe it. Confronted with it, they fall back on inadequate theories based on scarcity.

The growth of the information economy, however, has made it imperative to deal with the phenomenon of abundance. Unlike the long history of commons research, studies of abundance are few; thus, we are just starting to build theories about it.

### 3: The wellspring of information abundance is the human urge to communicate

How did information goods become so abundant? For one, ideas grow – not diminish – with sharing. As Thomas Jefferson wrote: “Its peculiar character ... is that no one possesses the less, because every other possesses the whole of it. He who receives an idea from me, receives instruction himself without lessening mine....” Also, digital technology has further lowered the cost of exact copies over any number of generations, leading to a marginal cost of almost zero. “Too cheap to matter,” as Wired editor-in-chief Chris Anderson puts it. Furthermore, it does seem that “information wants to be free”. Something is driving it to multiply. This driving force, I suggest, is the human urge to acquire and exchange knowledge. We did so when it cost much. We will certainly do so even more, now that sharing costs practically nothing.

On the Internet, we can fully express the primal human urge to communicate. This is why we have information abundance.

### 4: A second wellspring of abundance is the urge in every living organism to reproduce

Nature’s abundance is hard to miss: bacteria can double their numbers every half hour; some plants release a million pollen in a single day; a fish can release one to ten million eggs in one breeding season; one rice grain can produce a thousand grains within a planting season. (Even pets with five to seven litters a year are more than most of us can handle!) In seas, lakes, swamps, grasslands, forests, and other ecosystems – abundant life blooms. Where they do not anymore do so, something must have upset the natural abundance. Even such damaged ecosystems, if left alone, soon teem with life again.

While abundance in nature can last indefinitely, it does not grow without limit. As species multiply, they soon settle into balance with other species and the natural environment. The food chain of plants, herbivores, carnivores and other predators, and decomposers such as arthropods, fungi and bacteria becomes webs of material and energy cycles and exchanges, highly-productive ecosystems that provide us perpetual streams of natural income – new soil, clean air, food, materials for clothes and houses, medicine, fuel, industrial inputs, a thousand other goods and services and psychic rewards too.

The generative logic we see in many commons, I suggest, comes from these inner logic of sharing in humans and reproduction in living organisms.

### 5: The massive bulk of water, carbon, iron, silicon and other minerals on Earth as well as energy from the sun are also wellsprings of abundance

The Earth’s mineral abundance is non-renewable and must be managed differently from renewable solar energy.

As oil production peaks, for instance, cheap abundant oil will soon come to an end. Peak oil should teach us an unforgettable lesson in abundance management. Those who miss the lesson will go for more coal, nuclear power and agrofuels. Those who get it will shift to clean renewables, energy efficiency and planned “descent”. Transition towns are already leading the way.

Solar energy makes possible other abundant energy sources such as water, wind and wood. In 2009, renewables supplied 25% of total world energy capacity, thanks in part to China’s surging interest in biogas, wind power and photovoltaics. Germany, too. Photovoltaics are made from semiconducting silicon, the material base of the digital

revolution. (Do you recall how expensive LCD projectors were ten years ago?) If photovoltaics follow similar plunging price trends as other digital goods, we can look forward to a Solar Age soon. Hydrogen from water also promises another abundant energy source.

In passing, let me cite one more wellspring of abundance: webs of positive human relationships in caring communities, which generate feelings of peace, contentment, love, happiness and other psychic rewards which defy quantification.

## 6: Abundance creates commons

I have now identified several archetypes of abundance. All these archetypes have created commons. ("Question: before refrigerators, what did people do when they had too much food? Answer: they threw a party!") Human societies learned early on to deal with abundance - including temporary ones - from forests, rivers, and other hunting and gathering areas by managing them as commons. Taken for granted for a long time, the oceans, the atmosphere, and other global commons are just getting due attention. Likewise, the creative commons of information, knowledge and culture are now getting renewed attention with the rise of the Internet which, by the way, has become a great showcase of both the concepts of commons and abundance (and their problems, too).

Markets and governments are also public spaces. Therefore, rather than dismiss them outright as completely anathema to the commons, should we not try to reorient them, to be managed as commons? (After all, public markets and village meetings still show features characteristic of commons. Perhaps, we should see the failures of markets and governments - the financial bubbles in the West or the communist collapse in the East, for instance - as the real tragedies of the commons, from which valuable lessons can be drawn.)

## 7: Under conditions of abundance, reliability becomes more important than efficiency

Efficiency - maximizing gain and minimizing waste - is very important when resources are scarce. It has been the focus of mainstream economics.

But when resources are abundant, efficiency recedes in importance. Some biological processes are "wasteful", like releasing millions of sperm although only one will actually fertilize an egg. As hardware became cheaper, electronic designers have likewise learned to put integrated circuits, processing power, storage, and bandwidth to uses considered wasteful years ago.

It often makes sense to give up some efficiency to ensure the continuity of abundance. Among engineers, we call a process that seldom fails "reliable". This term has familiar equivalents. A process that lasts indefinitely is called "sustainable". Since future generations can enjoy the same abundance that we are enjoying, sustainability also means "intergenerational equity". A process that benefits only one sector of society is not reliable because it fails for the other sectors. If all sectors benefit, then we have "social justice" or "equity". For high reliability, we need to minimize any risk that can cause a failure of abundance; this sounds like "risk-aversion", or the "precautionary principle".

In short, reliability means ensuring that the fruits of abundance are enjoyed without fail by all social sectors, our generation, as well as future generations. We optimize it by putting risk-reduction ahead of gain accumulation. If abundance is a goose that lays golden eggs, we'd rather ensure that the goose stays fit and alive, than force it to lay two eggs instead

of one each day.

8: We can learn to make one abundance lead to another and create cascades of abundance

People with access to land often stay poor simply because they have forgotten how to tap and build on the abundance that nature lays at their feet. Beyond tapping existing abundance and making it last indefinitely, we can learn to recognize the conditions that generate each archetype, so that we can subsequently create cascades of new abundance. To cite examples: the System of Rice Intensification (SRI) improves yields dramatically; permaculture creates through conscious design a self-regenerating “forest” of food and cash crops; remineralization rejuvenates our soils; biodynamic farming taps distant forces to raise the quantity and quality of farm produce.

On the Internet, the original protocols have spawned cascades of abundance. First came mailing lists, download sites and home pages; then the search engines; other innovations followed, such as blogs, wikis, video sharing sites, and social networking portals, with no end in sight.

Creating cascades of abundance is hardest in the industrial sector because its substantial material and energy needs (and wastes) tend to disrupt ecological systems. If industrial processes could be turned into closed material loops fuelled by renewables, this may yet provide the key to cascading industrial abundance.

As we get better at cascading abundance, new commons will emerge that can provide our communities with even more continuous streams of goods, services, psychic rewards and other benefits.

9: Abundance spawns two contrary mindsets: monopolizing it for private profit-making, versus holding it in common for the good of the whole community and future generations

These two will compete for our minds. Which mindset will ultimately win is by no means clear.

An example in agriculture is the contest between farmers who share commonly-held seed varieties among themselves, versus multinationals who extract monopoly rents from their proprietary seeds through plant variety protection, patents, F1 hybrids, and the “Terminator” technology.

In the industries of the West, very little is commonly-held now; the corporate mindset holds sway. Curiously, however, the world’s main source of industrial abundance today is China. which boasts of a huge but less dominant State sector, in precarious balance with a growing corporate sector, under the Communist party’s schizophrenic ideology of “market socialism”.

In the information economy, user movements for copyright and patent exemptions, open access, free software and other forms of non-exclusivity have made big inroads in building commons of information techniques, tools and content for sharing. However, corporations and governments are trying to stem the tide of sharing by tightening IPR enforcement and through agreements like the GATT/WTO and the up-and-coming ACTA.

10: Corporations are undermining abundance held in common

Unfortunately, we created corporations and gave them life before Asimov drew up his Three Laws of Robotics. The First Law was: "A robot may not injure a human being or, through inaction, allow a human being to come to harm." The Second: "A robot must obey the orders given it by human beings except where such orders would conflict with the First Law." We would be much better off today if all corporations - which, like robots, are man-made automata - were constrained by these laws.

Our legal systems instead put into these business automata a single urge - to seek profits. This one-track mind has made them take over commonly-held sources of abundance - from seeds, to land, to knowledge - and turn these into monopolies because it is profitable to do so. What they could not take over, they have undermined or sabotaged, to create artificial scarcity. Corporations have destroyed the fertility of our soils, substituting commercial synthetics in their place; they have stopped the natural flow of mothers' milk in favor of commercial formula; they have bought out independent seed companies, to force-feed us with genetically-modified toxic foods, all in pursuit of profit. They have become, in Wolfgang Hoeschele's words, "scarcity-generating institutions".

We conceded to corporations legal personhood, turning them into a de facto man-made species of business automata. They have become super-aggressive players in our political, economic, and social worlds. Beating us in our own game, they have taken over governments, economies, and media. Having become masters in domesticating Homo sapiens, they now house, feed, train and employ tamed humans to serve as their workhorses, pack mules, milking cows, watchdogs, stool pigeons and smart asses.

Thus, I will argue, corporations are now the dominant species on Earth. They routinely ignore human orders, injure human beings and foul up ecosystems in violation of laws for automata; these man-made mammoths now occupy the top of the food chain and have become the greatest threat to our well-being and the survival of many species on this planet."