

REDESIGNING ORGANIZATIONS: THE NEW FACE OF BUSINESS

sustainable evolution to a sustainable organization

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ABSTRACT

The purpose of this paper is to propose fundamental changes – a quantum shift – in the way in which organizations are presently structured. Our theory can be applied to any organization though we will focus primarily on business. We argue that while the current business model has served society well (arguably) in several regards for more than 200 years, this model has come with its costs. If society as a whole is to proceed in a sustainable manner, business must change its focus. Business must be redesigned so it naturally considers its full impacts – on people, communities and the environment.

This paper is structured around five key premises:

1. Mankind once lived sustainably with its environment.
2. Mercantilism and the Industrial Revolution created a widening separation between owners and doers and little has changed fundamentally in the design of business organizations since.
3. Throughout history, there is always an institution in power and that institution is responsible for taking care of society. Currently business is that institution.
4. Business has not accepted this responsibility – and in fact is not designed to do so. Our society, communities and environment have suffered as a result.
5. Business requires a redesign based on a fundamental, sustainable design principle from our past – the power of circles.

This paper will address this fundamental design issue – its source and its impacts – and propose a new face of business. This redesign is based on a model that recognizes the importance of distributive accountability and sustainable values. It also recommends the need to shift our thinking from this current model to one where people are organized within communities existing harmoniously with the environment.

INTRODUCTION

When will we take action? When will we be able to take action?

Does our inability to make substantial progress towards a sustainable coexistence with our environment stem from a lack of awareness? Are we aware and just don't care? Are we paralyzed by the enormity of the challenge and therefore need to be shocked into action?

Or are we – at the most basic level – unable to take action?

David Hanna, an expert in organization design and author of Designing Organizations for High Performance once wrote, "Every organization is perfectly designed to get the results that it gets." Is the world not, at a global level, some sort of organization? If so, then are we not arguably perfectly designed for this environmental crisis?

So, what is the underlying design flaw? We propose that when people come together they can either be organized or unorganized. By organized, we mean that objectives guide the organization, and people, tasks, skills and allocation of resources among the members have some formal structure. (Scott, 2002)

These organizations can either be based on equal, distributive power, or unequal, hierarchical power. While

"We are in one of those great historical periods that occurs every 200 or 300 years when people don't understand the world anymore, and the past is not sufficient to explain the future."

Peter Drucker

hierarchies have existed for thousands of years, what's more important is that since the beginning of the Industrial Revolution, modern society has been dominated by a hierarchical power called business. It is since business became the dominant force within human organizations that economics and the environment have failed to coexist in harmony. (Brown, 2006) Therefore, it is not that there is an underlying flaw, but rather, there is an overarching design flaw in society today.

As Willis Harman, one of the world's leading futurists puts it, "business has become, in the last half century, the most powerful institution on the planet. The dominant institution in any society needs to take responsibility for the whole – as the church did in the days of the Holy Roman Empire. But business has not had such a tradition." What's worse is that we have learned to accept that business should dominate and that, as Harman states "economic logic and economic values should guide our decisions".

Business is increasingly becoming out of synch with society as a whole. The gap between the 'haves' and 'have-nots' is widening. But rather than see the collapse of this dominating institution, we propose it is time for a new business organizational model. It is time for a radical redesign that strikes at the very heart of this overarching design flaw.

For the answer we start by looking back in our history, before the rise of the authority-based hierarchical institutions, to a time when people self-organized within interdependent communities. The answer today then is simple in its design – but not easy in its execution. The answer requires the elimination of authority-based control and the adoption of inter-connected high performance organizations – society wide.

This integration, at its purest, most basic level, will evolve us once again, to a time when PEOPLE within COMMUNITIES live in harmony with the ENVIRONMENT.

OUR SUSTAINABLE PAST

There hasn't always been a crisis. There was a time when people lived as one with the environment. If we look carefully, society today can trace its roots to a sustainable past.

Much can be learned from indigenous people. These societies have inhabited regions of the world for tens of thousands of years and have traditionally lived in balance with their environments. This

reality was recognized in the Brundtland Report twenty years ago. The balance achieved by these communities was seen by some as a necessary model for governments to examine in order to restore balance to the earth and its inhabitants. (Gott, 2006)

Indigenous people understood that people in small communities can live harmoniously within their environment. Indigenous people have the ability to integrate “nature, social organization, culture and the supernatural world”, (Cavalcanti, 2002). Their method of managing resources in a sustainable fashion has been coined ethno-economics.

From an organizational design perspective the key to the indigenous people’s success lies in the interdependent relationship between people, communities, and the environment. Interdependency speaks to a reliance on each other – a weaving of dependency to the point that each, while unique, is inseparable from the other. In that

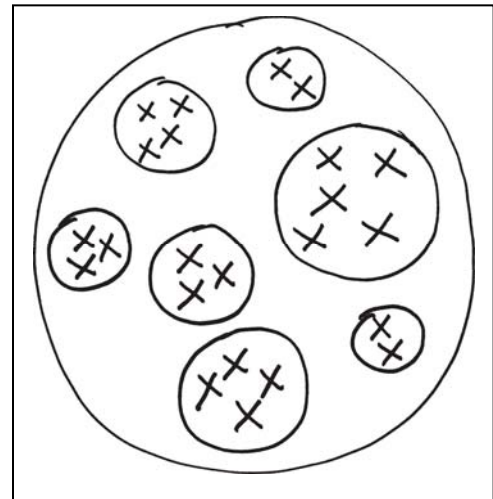


Figure 1: People within a Community

context then, indigenous people do not exist independently; rather they live together in small organizations within larger communities. And their community and environment are one – society and ecology are the same.

Thus, rather than inflicting neo-classical economic models on these societies in hopes of profiting from the resources they possess, modern civilization would be wise to study and understand these tribal communities – communities that existed in harmony with the earth for so many years. Our traditional economic based models of development, do “not offer a sound basis for reaching ecologically sustainable solutions in the long run” (Cavalcanti, 2002). We do well to learn from our

past. But as much as we can learn from this sustainable past, there were flaws to the organizational design when faced with the challenges posed by growth.

INTRODUCING HIERARCHY – CREATING ORDER

Through the ages societies continued to grow. Our ability to survive – and prosper – together in set geographic regions allowed communities to grow larger. But with growth came the increasing challenges of large numbers of people in more complex communities. And while we still have our three design elements of people – communities – environment, a new design was needed to keep things organized. Enter the hierarchy. The hierarchical design brought many advantages but as we now see, with this design came disadvantages – with none so fundamental than its effect on people and the environment.

Approximately 10,000 years ago, our nomadic hunter-gatherer societies began to settle in permanent sites in what is referred to as the Neolithic Revolution. This shift to an agriculture based society had major impacts on society in general including increased population densities. However, of greater importance was the introduction of private property, a private

ownership system, and for the first time, the ability of one man to have power over another. With the Neolithic Revolution, mankind moved to a hierarchical-based design for society.

Over time, many institutions, such as monarchies and empires, have used the hierarchy to maintain order, as larger and larger populations of people settled into larger regions. While experts disagree on the precise beginning of these new organizations, certainly the Roman Empire may be one of the more popular examples, and Egyptian empires existed well before that in the 16th Century B.C.

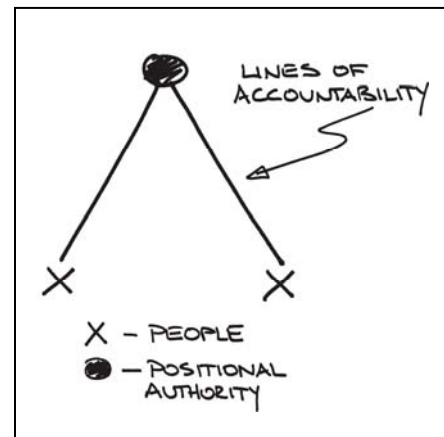


Figure 2: Hierarchical Positional Authority

What's even more important than the timing of this new design is the inherent shift in power from equal, distributive power to unequal, hierarchical power. For example, an empire's ability to maintain order within the organization stems directly from its use of a hierarchy. A hierarchical organization design relies on centralized power – power that is based on positional authority maintained and often reinforced through coercion.

No longer did our three fundamental design elements of people – communities – environment live in harmony. People now had power over other people. People no longer lived in harmony and balance with other people. People were separated into two groups – one dominating the other – the 'haves' and 'have-nots'. People were now separated into OWNERS and DOERS.

Likewise, no longer was there a natural community. Owners and doers existed within a new organization design – an institution - the hierarchy. This change as to how people were organized became and is the fundamental overarching design flaw. The flaw not only effected interactions and relationships amongst people and communities but as we will see, ultimately had a devastating ripple effect across our environment as well.

As a result of the shift to a hierarchical design we now had, and continue to have, doers – institutions – environment all dominated by the break-away group of owners.

THE GAP WIDENS

Polanyi (1944) believed that the introduction of the Industrial Revolution – with all its improvements and advantages – was a key factor in the development of the problems we face today. As artisans were split from their crafts, and machines took on the work that people once did, the notion of the whole person was split in two.

Likewise, the Industrial Revolution resulted in a clear separation of what is commonly referred to today as economy and society. Before this separation of work and ownership there was no need to describe the economy and society separately. With this shift, however, the individual was no longer the creator of that which would provide him with the necessities of life. Instead, people were transformed into replaceable parts of a bigger machine – the enterprise – an economic engine operating for the sole purpose of creating profit. And the profits were not returned to the owners and workers in equitable proportions. Owners were the reaper of the greatest rewards, while doers netted a very small return in comparison. The gap began to widen.

"People in large numbers won't give their all for protracted periods of time – with a cost in their overall lives – for an abstraction called a corporation or an idea called profit.

People can give only to people. They can give to their coworkers if they believe that they're engaged together in an enterprise of some importance.

They can give to society, which is just another way of saying they can give to their children.

They can give if they believe that their work is in some way integrated into a whole life."

Robert B Shapiro

While advanced education and higher human aspirations led to a more humanistic approach to enterprise following World War II, the organizations that arose still maintained the split between economy and society. Owners still controlled the organizations, and the number of owners grew as more investment capital was required in order to fund the company's growth and companies went public. Workers still 'did' the work, though their interests were better protected thanks to government regulations and trade unions. However, the pre-industrial revolution of owning and doing within each individual was still missing. Hence, the economy and society remained as separate interests, and investors grew richer while workers' contributions were regarded as less valuable, monetarily. "This bureaucratic coordination of the actions of large numbers of people has become the dominant structural feature of modern forms of organizations. Only through this organizational device has large-scale planning both for the modern state and modern economy, become possible" (Coser, 1977).

Consequently, we now face astronomical divisions of wealth on earth. Over \$1 trillion is shared amongst the world's 225 richest people; an amount greater than the combined wealth of 47% of the world's population. Even more striking, Bill Gates, the Walton family (Wal-Mart) and Warren Buffet have combined assets surpassing the GDP's of 48% of the poorest nations combined (Homer-Dixon, 2000). And clearly the power once held by governments has shifted to the private sector, as witnessed by the fact that "forty-nine of the 100 largest economies in the world are now multinational companies, not countries." (Adler, 2006)

Even within business itself, there are enormous discrepancies between the highest and lowest paid employees. The gap between an average CEO's compensation and an average worker's pay has risen from 42 times in 1980 to 411 times in 2005. And the average CEO's annual pay, according to Standard & Poors 500, was \$14.78 million in 2006. (Corporate Watch, 2005)

That these divisions and gaps could exist in the first place is unfathomable. But even more shocking is that our economy and our society are perfectly designed to evolve this way. As

"The deterioration of the American economy and its enterprises is not a problem but a complex system of interrelated problems. I call such systems messes.

The current mess is so deeply rooted in our society that nothing short of a radical transformation of our economy and its institutions will reverse the deteriorating trend".

Russel Ackoff

Coser (1977) notes, Weber and Marx both agree that "modern methods of organization have tremendously increased the effectiveness and efficiency of production and organization and have allowed an unprecedented domination of man over the world of nature", which has ultimately led us to this inequitable situation we now face.

But at what cost?

OUR DESIGNED ENVIRONMENTAL MESS

The impact of the widening gap between owners and doers – the haves and have-nots – has taken its toll on the environment. Our current design and imbalance across people, communities, and the environment is posing a serious threat to our water, atmosphere and land. With the Industrial Revolution came the “most environmentally destructive era in human history.” (Brown, 2006)

This disconnect between society, economics, and the environment should be obvious when we look at the devastating effects our economic driven world is having on water, a substance we cannot live without. Our bodies are comprised of roughly seventy percent water, and we are foolish to see ourselves as separate from our environment.

The planet's hydrological cycle cannot increase its supply. We operate today with the same quantity of water that was available before mankind began. And this finite quantity is in serious jeopardy. While the global supply is not decreasing, the number of people on earth is increasing at an exponential rate, and therefore the amount of water available per person is in rapid decline.

It is estimated that there is in the range of 1.4 billion cubic kilometers of water on our planet in all its forms, but of this seemingly vast quantity, only an infinitesimal amount is potable, or usable, for human consumption. The rapid rate at which our glaciers are melting due to global warming, and our aquifers are being drained by careless resource management are unsettling facts, since these sources of water hold the highest percentages of fresh water. (U.S. Geological Survey) While fresh water is renewable in the sense that it is replaced by the hydrological cycle, the renewable times of the various bodies varies significantly, and the largest sources can take up to thousands of years to renew themselves. Thus, the hydrologic equation of continuity “inflows – outflows = change in storage” (Brooks et al., 2003) is adversely affected by our economic activities.

Additionally the quality of our infinitesimal amount of potable water is deteriorating at a rapid rate as we forge forward in the name of profits. Theories abound on the best way to protect our water supply, from market economies; to world water expert Sandra Postel's notion that the common sense way to preserve water is to stop losing it (de Villiers, 2003). The arguments surrounding this topic are not enough anymore. Immediate action is required, demanding that every person on earth become respectful of the earth's water.

Our atmosphere is also in a perilous state. Just this year, scientists agreed that climate change is largely due to human industrialization. Since the beginning of the industrial revolution, carbon dioxide emissions have increased thirty percent, based on studies looking back at more than half a million years. (Earth Institute) It is predicted that if, over the next five hundred years, the world were to burn its remaining supplies of oil, gas, and coal, the global warming effect would be equivalent to Venus. While this detail may be more for shock value than for what the world will become, the severity of our current economic actions must not be underestimated. The Kyoto accord of 1997 was designed to deal with the issue of greenhouse emissions, but due to the enormous economic consequences that some countries feared, adoption was not unanimous. Some experts argue that even with full adoption, the accord would not have a great effect. We must act now and find harmonious ways to reduce greenhouse emissions, working with the environment, instead of against it.

"Sow a thought, reap an action; sow an action, reap a habit; sow a habit, reap a character; sow a character, reap your destiny."

Samuel Smiles

Smog is another major threat facing the globe as industrialization marches forward. Humans are increasing the levels of nitrogen oxides and volatile organic compounds by the choices they make, such as driving cars, working with solvents, and running power plants, to name just a few sources. All of these activities are having an increasing effect on ground-level ozone. Mixed with pollutants, smog occurs and is becoming an issue of crisis in many areas of the world.

And we cannot forget the impact our actions are having on the land. Our current economic practices encourage the use of chemical pesticides in order to maximize crop growth for maximum yield. At the other extreme of land use, impoverished farming practices in third world countries degrade the natural land resources due to highly inefficient farming practices which exist as a desperate and uneducated way to prevent starvation.

Not only do our current agricultural practices affect the quality of our land, but industries such as forestry, oil and gas, urban development, and mining all impact the quality of the earth's surface. Due to a drive for profits from the land, we see negative repercussions on soil quality, biodiversity, water quality and quantity, and air quality.

Consequently, our designed mess has wreaked havoc with our natural environment. While it appears unlikely that we will be able to restore our water, air and land to pre-industrial days, there is significant hope that these resources can be maintained at a sustainable level if changes are made – soon.

ELEPHANT IN THE ROOM

We try to fix this mess with band-aid solutions but ultimately the issue must be addressed head on. Study after study and solution after solution try to fix the societal – ecological dilemma. But none, it appears, propose a fundamental design fix that brings these two previously joined elements back together as a whole. We seem unable to reconcile the dissonance between our attitudes concerning the environment and our actions to improve things. We are caught – unable to act on the overarching design flaw causing this mess, and instead, ignore the problems, much like the elephant in the room that no one sees.

"The world will not evolve past its current state of crisis by using the same thinking that created the situation."

Albert Einstein

People and their behaviors are largely influenced by their perception of reality. Rees (2002-03) relates this phenomenon to the ecological destruction we are experiencing due to our current economic model. He explains that mankind does not necessarily see what is real, but rather perceives “social constructions derived from shared perceptions, experiences and deliberate indoctrination”. Furthermore, he discusses the tendency by humans to create social myths based on these perceptions. We agree with Rees that society lives by the myth that “techno-industrial society generally makes its major decisions based on scientific knowledge, fact and analysis”. Likewise, society has chosen that “economic logic and economic values should guide our decisions” (Harman), a result of shared perceptions, perhaps? If society had been able to see with their visual eyes rather than their perceptive eyes, would we not be in a much healthier position today?

Our perception of reality affects our behavior. $Reality + Perception = Behavior$. The reality of our current situation is an ever-growing economy whereby consumer needs and wants are outweighing the available resources. Despite a growing awareness surrounding the problems facing society and the environment due to our industrial practices, the perception by some is that the information being provided is unfounded, and by some is that it is overwhelming. Therefore, we see slow, or little change in behaviors either due to disbelief or an inability to act. In the cases of an inability to act, cognitive dissonance will exist. (Festinger, 1957) As global problems are addressed increasingly each day in the media, this dissonance should grow. However, we are not seeing rapid changes in behavior. Therefore, if we want to initiate faster behavioral changes despite this slow perceptual change, we need to restructure our equation of reality, perception, and behavior. The equation should read: $Reality + Behavior = Perception$. Rather than wait for the necessary perceptions to evolve in order to generate the necessary behavioral changes, behaviors must begin to change immediately.

REVOLUTION OR EVOLUTION?

So we agree we have a mess. And no amount of window-dressing or band-aid fixes will solve the societal and environmental crisis we are facing. This is not the first time in our history that we have faced a large societal problem, though arguably we have never faced a situation of this magnitude. But rather than taking a step-back, move-forward approach, this time let's learn from our past and make a quantum shift in our organizational evolution.

The Fall of the Roman Empire, Storming of the Bastille and Collapse of the Soviet Union all serve as examples of reactions to severe societal crises. In all these examples, people decided to revolt against the institution in power – the gap between the have and have-nots became too wide and snapped back. Doers were at odds with both the owners and the institutions that wielded the hierarchical-power over them. Lack of harmony resulted in revolution.

Time and time again, we see throughout mankind's history, revolutionary change called upon as a response to a lack of harmony. History repeats itself. We are caught in a vicious spiral.

Revolt is not the solution, for all we do is change the players, effectively putting into power a new institution with new owners. As we have shown, it is clear from the enormity of our crisis that we must do something; that we are quickly reaching the point where perhaps another revolution – an environmental revolution – is imminent. Protests at gatherings of the economic powers such as the EU and G8 Summits are more widespread and more violent. But rather than speed the collapse of business as the dominant institution and hope that a new institution moves quickly to solve the environmental and societal crisis, it's time for a new approach. It's time to break the vicious spiral – a spiral for which we are perfectly designed – and make a quantum shift in our organizational evolution.

Business can make this shift. There is a growing belief within that institution that a new way is needed and that “those who participate in the building of the new economy will be the winners.”

(Brown, 2006) We agree with Paul Hawken, who 14 years ago in *The Ecology of Commerce* argued that business should be the driver for a healthy environment.

"The ways we govern, manage, and lead today are a testimony to self interest and entitlement. If a commitment to genuine service is to have integrity, money and privilege must be redistributed more equitably."

Peter Block

But business needs a new face, a new design. And for the answer we look back to our sustainable past to a time when

people lived in communities within the environment – a harmonious time before hierarchies.

OUR SUSTAINABLE FUTURE – POWER OF CIRCLES

So fixing our mess requires us to look to our past, before this relatively recent era dominated by the hierarchical unequal power model, to a time when we coexisted with the environment. There was no ecology and society. These words meant little when the two were one. All that existed were people in communities living in harmony with their environment.

In his article addressing the need to examine aboriginal culture, Cavalanti (2002) suggests that a new perspective be found which both links existing disciplines and offers sound alternatives “on how to live healthily, happily and sustainably”. He sees the need to return societies and the economy to the sustainable harmony achieved in these ancient civilizations between the people and their environment.

The answer to our future lies in past society’s unique use of equal, interdependent, overlapping accountabilities. So, we need to think – equal, interdependent, and overlapping.

At the beginning of this paper we proposed that all organizations are either based on equal distributive power or unequal, hierarchical power. There are no other options – there is equal or

unequal. When we have true equal accountability between people we create partnerships. Throw multiple people into an organization based on equal accountability and you achieve powerful, connected interdependent relationships – relationships with complex checks and balances. The power of organizations using the design principles of equal and interdependent is quite common. We refer to this design structure as a team. “The essence of a team is common commitment. Without it, groups perform as individuals; with it, they become a powerful unit of collective performance.” (Katzenbach and Smith, 1993)

A team is best represented by a circle. Rather than being held accountable by a hierarchical power, teams are bound together - working together and holding each other accountable – much like the organizations from our sustainable past. But to be clear, teams are more than loose groups of people. Teams are more than a label. Teams are a powerful design concept that is rarely implemented properly – despite our familiarity with the term. So, we return to a time when small groups of people worked interdependently in the true sense of teams.

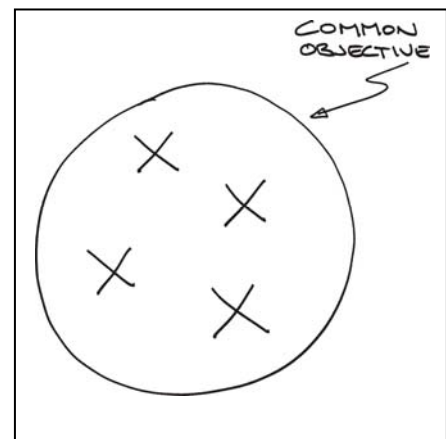


Figure 3: Bound by a Common Objective

The question then becomes, “Working interdependently on what? What is the unit’s collective objective?” These small

teams of people need to be responsible for more than an economic objective. Rather than separating out responsibilities for society and the environment and controlling or regulating them from above in a hierarchical fashion, each team must see its purpose as including equal responsibility to each other, to its larger community, and to the environment in which it exists.

Effectively, in addition to a collective objective, each team has a shared set of unifying consistent values – a double circle if you will. And while organizations’ objectives may differ – these shared

values are consistent across all individual teams. Finally, it is important to recognize that these teams do not live in an economic vacuum. A lack of environmental awareness arguably was the downfall of our organizational designs of the past. These new organizations, on the other hand, understand the footprint they leave – the community overlaps with the environment.

CIRCLE BASED VALUES

We propose that the time has come for basic common, sustainable values that define all small teams and thus bind them together. These values, freed of the hierarchical trap that we currently find ourselves in, will ultimately allow us to unite – society wide – and confront our environmental problems. We will finally be designed for action.

The importance of values and beliefs of both the organization and the individuals in creating sustainable organizations is well understood. van Marrewijk (2004) talks about a value system that was developed as part of the European Corporate Sustainability Framework (ECSF). He addresses the evolution of values since the days of clans and tribes, to a point where organizations now witness “comprehension, understanding and synergy” in systemic-driven organizations – those necessary for sustainability. Our model proposes a slight variation on this idea, that the values proposed in the ECSF are necessary, but that they should manifest in people through a collective team-based approach, rather than a hierarchical model.

“Interdependence is and ought to be as much the ideal of man as self-sufficiency.

Man is a social being. Without interrelation with society he cannot realize his oneness with the universe or suppress his egotism.

His social interdependence enables him to test his faith and to prove himself on the touchstone of reality.”

Mahatma Gandhi

Values and beliefs concerning sustainability from the organizational perspective appear to be locked in the traditional model of hierarchy, albeit with a new emphasis on environmental concerns. This increased focus on the environment is much needed; however, the framework in which it is

addressed requires a new twist. No longer can we place the environment on a list of 'to dos'. The urgent situation we now face requires us to look at the environment as equal to the economic/social component of organizations, whereby we bring the people and earth back together. The separation that has existed for hundreds of years must be repaired at a rapid speed if we are to move forward in harmony, sustainably.

While mankind may possess values of pure intent, and be cognizant of the behaviors required for a sustainable existence, our beliefs and ultimately our actions are not always in sync. Therefore, we can no longer ignore the shaping of values and behaviors at the individual level.

David Suzuki (2002/03) surmises that the speed with which humans are "altering the chemical, physical, and biological features of the planet on the scale that we are now doing" forces us to look at not only our individual effects but also those of humanity as a collective group. Just as there is a growing awareness of the need to integrate the hard sciences with the humanities and social sciences, (Klein, 2004) we must be cognizant of the urgent need to integrate the scientific and social effects of individual activities.

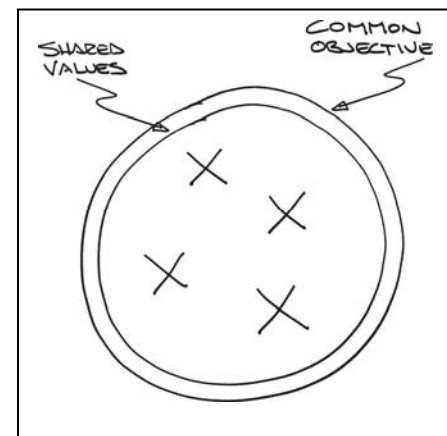


Figure 4: Shared Sustainable Values

As such, our values must shift towards a team-based model, holding one another accountable for activities and behaviors, and taking action together. Using teams of small groups of people, with shared sustainable values, throughout society will allow people to work together for the common good. In this way, individual wants will be balanced with those that are best for society as a whole.

Quite a simple concept actually – small teams of people bound by both a common objective and shared sustainable values.

THE HIERARCHY OF CIRCLES

Our paper proposes that the answer to our current crisis lies in binding small groups of people together using a combined societal, economic and environmental purpose. These overlapping objectives, when combined with true sustainable values, should lead us towards a sustainable existence.

As we have shown, this answer is modeled on the ancient nomadic civilizations from before the Neolithic Period. We have argued that these groups of people existed quite successfully within their environment until growth in the community size required order and the hierarchical model was introduced. But order in large complex organizations can come in another form. And for this final design solution, we once again look to circles – and a new hierarchy that maintains order in a sustainable way.

This design concept – the hierarchy of circles – is based on two design principles. First, while the bureaucratic hierarchy simply connects two separate entities through a third authoritarian entity, with a circle approach we use a third circle to create order. Second, just as there are limits to the number of entities that can successfully be maintained in a hierarchy – so too are there limits on the size of the circles.

At the most basic level, people should be organized in small teams bound by a common objective and shared values. Ideally, to be effective, the ideal team size is five to seven people. (Dunbar, 1992) While quite a simple and powerful concept, this first step will not be easy, as the hierarchical design dominates our thinking. Many challenges block our ability to create high performance teams.

These obstacles cause us to snap back to the hierarchical world with which we are so accustomed, even if we do attempt to create small powerful teams. The largest obstacle we face is how to handle organizations of more than seven people – the upper limit of a team.

Our first reaction to an organization of, say ten people, would be to have two teams. But without some sort of connection between these smaller organizations, we would have chaos. The two teams would lack accountability to one another. They would lack structure. To overcome this dilemma we could link the two with a third hierarchical authority. However, if we chose this route we would fall trap to using single point accountability to maintain order. We would inadvertently introduce an overarching hierarchy to our fluid team design. So instead we look to the first design concept of hierarchical circles – the third circle.

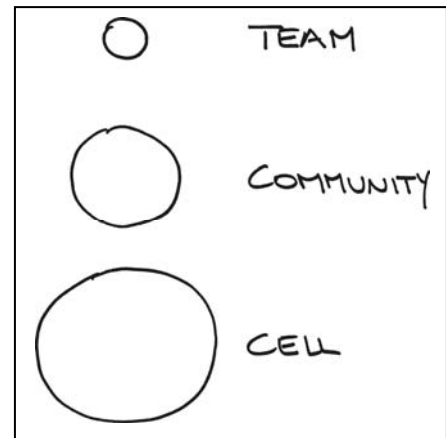


Figure 5: Hierarchy of Circles

Whenever an organization grows beyond the size limit of one team, it should separate into two teams – and create a third team to maintain order in this larger community. This design principle is no different than ancient tribes which used councils of elders that represented and took care of the smaller families. All three teams must have a unique objective. They must be distinct from one another but their objective must serve a unique and important role of the larger community. And while in this example, the first two team's objectives are tactical focusing on a component part of the community's objective, the third team is focused on the larger community. In essence, this team is the steward and watcher of the community's purpose.

Each of these team's objective are distinct – there is no overlap. Their membership, however, is not. A member can serve on more than one team – many members on many teams. This essential

design concept then goes beyond the simple one-to-many (1:M) accountability design of the hierarchy, introducing a more complex and powerful many-to-many (M:M) accountability.

To illustrate this theory, we will look to an example of a typical restaurant under both the traditional model and the new model. At most restaurants you will find a fairly typical hierarchical structure designed to maintain order and control. At the top, there is a General Manager usually with four direct reports (1:4 relationship); a Kitchen Manager, Front of House Manager, Bar Manager, and an Office Manager. The rest of the restaurant staff would report to one of these four managers – again in a 1:M accountability design.

However, we could eliminate the need for authority-based power and control using a circle based accountability design. The restaurant – the community in this example – would have a number of teams all with a distinct objective. The community would be made up of a Finance Team, Back of House Support Team, Front of House Support Team, Promotions Team, Host Team, Bartender Team, and even a Facilities Maintenance Team. Central to the whole design would be a Core Team – essentially a collective General Manager – that would watch the overall performance of the community on behalf of the other teams. Under the circle model, however, this core team represents, not dictates to, the component parts of the community.

So, we have small teams operating inside of larger communities. Again, this is a design much like those ancient tribal cultures. But communities as we've described have their population limits. A community cannot go beyond 150 people or it risks losing the power of the many-to-many accountability. As Dunbar, a British anthropologist discovered, there is a “cognitive limit to the number of individuals with whom any one person can maintain stable relationships”. This limit affects the organization's ability to communicate, to learn and ultimately to take purposeful action towards the community's overall objective.

Much like multiple teams exist within a community, multiple communities exist within a larger organization – the cell. Cells are the last part of the design concept within the hierarchy of circles.

Cells are the final stage in our organization design. They are the last boundary to be defined. To this point, we have argued that small groups of people (teams) should be organized within small communities. This is a powerful design since these organizations consider not just their economic, but also their societal and environmental impacts. Just as teams and communities are geographically bound – so, too are cells.

We propose that cells be based on watersheds. The final circle in this hierarchy – key to this new organizational design – binds all communities together within one

geographical boundary. Once again, a third circle of representatives watches overall performance (society, economic and environmental) on behalf of all communities within the cell. Living and working within these ecosystem units, communities would be in the position to collectively manage their water and land resources as they pursued economic activities. (Imhof, 1992)

Together, these three circles – team, community, and cell – within the hierarchy create a natural layering effect, based on simple design principles and complex accountabilities.

A QUANTUM SHIFT

We have proposed the idea thus far that industry is the driver in today's society, at the expense of the environment and society. We have also addressed the fact that humans appear unable to take action in order to resolve these problems. While more and more long-term government regulations are

“Most of human evolution took place before the advent of agriculture when men lived in small groups, on a face-to-face basis.

As a result human biology has evolved as an adaptive mechanism to conditions that have largely ceased to exist.

Man evolved to feel strongly about few people, short distances, and relatively brief intervals of time; and these are still the dimensions of life that are important to him.”

S.L. Washburn

being proposed to handle the crises we face, there is still much uncertainty at all levels of society as to how to take the necessary corrective action. We look briefly here, at the challenges and opportunities of change, as we move towards sustainability in the team-based model.

The complexities facing the environment and the means by which to solve the problems often appear overwhelming and insurmountable. Current studies are emphasizing the need for interdisciplinary research to better understand the problems and subsequently find solutions. Integrating the natural sciences, the social sciences, and the humanities is in order, if environment, economy, and society are to be better understood as a whole, rather than as isolated facets of our world. (Klein, 2004)

This need for integration lies in conjunction with our proposition to redesign organizations into team-based, non-hierarchical structures. A move to these structures requires a shift in the way we use knowledge, and effective integration of the various disciplines requires a new environment for success. No longer can people work in isolated silos with their chosen topic. They must collaborate with one another and share their knowledge in order to shift our organizations from profit-driven institutions to well-rounded stewards for the people, community, and the environment. In order to facilitate this sharing of knowledge, we must provide people with organizations based on a culture that supports the collaboration of ideas.

A detailed discussion of the need for and application of all of the disciplines is beyond the scope of this paper, but examples are surfacing indicating that a movement to interdisciplinary thinking is close at hand. Examples linking the environment and the economy to other disciplines can be found in areas such as psychology, archeology, sociology, management, and physics, to name just a few.

Another challenge we face is determining the optimal balance required between the decision-making of self-directed groups of people, government regulations, and environmental and other taxes to guide us in the proper direction towards self-sustaining communities. Environmental taxes are

applied to some degree in all of the OECD countries (OECD, 2006), and there appears to be an ever-growing acceptance that taxing the ill-effects of industry is a mandatory measure if sustainability is to be achieved. Additionally, rules and regulations from the varying levels of government will be necessary during the initial stages of change to a sustainable culture. Generally, the more severe the problem, the more top-level solutions are sought. We recognize that societies will look to their leaders at this critical point in time, as warnings are now publicized on a daily basis. Governments must be prepared with well-thought out and implementable regulations to put immediate stops to destructive behavior. All the while, however, communities need to play a much larger role in decision-making in order to shift from the top-down traditional method of dealing with problems, to a bottom-up, integrated system of sharing information, in order to effectively move towards sustainability. (Reed et al., 2006; Santos et al., 2006)

Perhaps our biggest challenge, however, is initiating action by society. People and organizations are driven to perform (to act) because their efforts are measurable and rewarded. Vroom's theory of expectancy tells us that "motivation is determined by the outcomes that people expect to occur as a result of their actions on the job". (Johns, 1991) We have evidence that people are not necessarily unable to act, but that perhaps they only do so when there are measurable outcomes and rewards available to them.

Could we not, then, as a society, design the globe for a balance between economics, the environment, and society by measuring outcomes in all of these areas, through the organization of teams driven by action oriented objectives? Change is rarely easy, and the transition from our current organizational and economic structure to a new system will be no different. The time is right, however, for creative measures to move us toward sustainability (Snedon et al., 2006), and all of society must be on board.

Choosing to act in the present will greatly reduce the need to react to the past, in the future. Just as behaviors are the key to changing perceptions, choosing to act will help us move beyond awareness. Awareness is powerless – on its own – to deal with crisis. If measurable outcomes are what are needed to drive people to act, then let that be a fundamental shift that is made immediately in every organization. No longer will a quarterly corporate financial report be the measurement of success. Sustainable institutions will now require a quarterly sustainability report – based on economics, society, and the environment.

This change will require a redesigning of institutions into team-based structures with common objectives and values, with accountability at the core of every decision. Connectivity between teams will provide a system whereby multi-disciplinary knowledge is shared for the better good, and no longer will economics be the lone driver of the organization.

In addition, quantifiable outcomes will need to be developed to measure environmental and societal impacts. Just as the world has developed a sophisticated accounting system over the past 500 years, the time has come to create similar systems for the other equally important areas of civilization – environment and society.

Society must move past the current model whereby economic driven actions lead to measurable outcomes and global reactions occur in response to environmental and social issues that have been overlooked. What is needed now is a new model that encourages economic driven actions and environmentally driven actions and societal driven actions that all lead to measurable outcomes.

While the measurement of sustainability factors has been recognized as a large challenge (Proops, 1989), the time is right to embrace this challenge and create a new path to the future. The need for measurable sustainability indicators is apparent (Hezri and Dovers, 2006), and much research in this area will surely become a dominant theme of the future.

CONCLUSION

In conclusion, we see the urgent need for an evolutionary change to the world's current leading institution – business. A move from the traditional, hierarchical model is essential if we are to move away from institutions based primarily on economic decision-making. The global degradation that is occurring due to the drive for profits and consumer demands that outweigh our natural resources simply cannot continue.

We propose the evolution of team-based organizations, whereby all members are held accountable to one another and to their community as a whole. No longer is hierarchical authority beneficial and we foresee a closing of the gap that dominates society today, as PEOPLE, COMMUNITY, and ENVIRONMENT rejoin as one. All teams and their members will make decisions based on the economy, environment, and society within their geographical boundaries.

While challenges will certainly exist, and the evolution will not occur spontaneously and immediately, a movement in this direction will enable mankind to work with the environment, rather than against it. This paper serves primarily as the introduction to this concept, and future research in this area will address methods of implementation and studies of actual team-based projects.

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