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“Survival of the Fittest: The Power of Knowledge & Shifting Perspectives”

***Do you know the major forces that are
drastically changing the world around you ?***

by

Tara Kimbrell Cole
Director

SYNOVATIONS™ Pte. Ltd.
CATALYZING Innovative Thought™

128 Tanjong Pagar Road
Singapore 088535

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Thank you all for coming today. I am pleased that you are here and interested in this subject.

I'd like to begin by recounting the story of an experiment that was conducted in Tucson, Arizona at a conference on consciousness in 2002¹. Some of you may have heard me tell this story before, but it is such an important message that I will repeat it.

The observers were asked to watch very closely the two participants throw a white ball back and forth. The observers were told to watch closely the number of times the ball was being caught and thrown, to focus on the ball. While they were doing this a man dressed in a Gorilla costume walked directly through the line of sight between the two participants who were throwing and catching the ball. What percentage of the observers did NOT see the gorilla? I'd appreciate your participation here. Please let's have a show of hands.

There are 4 choices; how many of you believe that 10% of the observers did not see the Gorilla, 25%, 50%, 75 % The answer is 50% of the observers did not see the Gorilla.

This describes the core challenge; we all face in discovering and realizing opportunities from problems. And that all companies face in building the thinking capacity of their executives and capability to meet competitive threats, to innovate, to extract maximum value from innovation and to resolve complexities and solve problems.

Put another way, Albert Einstein said that quote, “no problem can be solved from the consciousness that created it”, unquote.

If we go through life fully focused on our individual lives and the tasks, we will miss opportunities that are out of our focus. We can only see them by shifting our perspectives, our mental models and our lenses. This *is* the way problems get transformed. Seeing the gorillas is the beginning.

The goal is two fold:

1. Proactively keep shifting focus for continuous discovery and

2. Cease thinking in silos, what I mean by this is to cease disconnecting our thoughts about one subject from another or disconnecting our thoughts from our feelings.

We can train ourselves to do this as a matter of practice, just like one does with physical exercise. I am an expert at this and have developed techniques and processes to do so. I hope that some of the information presented today may kick start such a process for you, if you are not already actively engaged in this practice. In any case, it takes repeated exercise just as it does to have a good figure and healthy body.

In the many problems presented lie businesses opportunities that could potentially create sustainable economic value as well as opportunities to make a difference as women in your individual spheres of influence on social issues, buying practices and individual habits that impact our world.

I'd like to acknowledge how very challenging this information can be and encourage everyone to stay the course, let it in and digest it. It requires digestion. These are the facts of our reality on this planet, most of us live by shutting them out of our consciousness, some more than others. It is widely recognized that the complex problems the world faces today can not be and will not be solved by linear thinking alone. Remember, the problem can't be solved from the consciousness that created it. We women need to be aware of these major challenges. It is the right brain function, historically nominated the "feminine" side of the brain that includes the capacities to 'digest' and synthesize information across diverse channels, to engage abstract thought and intuition in the process of birthing solutions.

The Center for Strategic & International Studies (CSIS) in Washington, DC undertook a major study, "THE SEVEN REVOLUTIONS"ⁱⁱ, which identifies and analyzes the key policy challenges that policymakers, business figures, and other leaders will face out to the year 2025. They took trends tracked over the last 20 years and assuming the same set of circumstances, growth rates, cycles, etc., they projected them forward, a task undertaken by computers. Now while we know that it is probably impossible for projections to be realized 100%, even if 25% of the projections are accurate, there is much to be considered.

As I identify these, I'll weave other facts from other studies and sources into the presentation. All the facts that I will present are referenced to reputable research, whether by the Center for Strategic and International Studies (CSIS) in Washington, D.C., the Milken Institute in Los Angeles, World Health organisation, various United Nations agencies, and various UK research centers such as the U.K.'s Sustain/Elm Farm. They are end noted in the written text. The opinions, correlations and cross referencing are my thoughts and are not to be attributed to the institutions that have done the research unless otherwise specified.

The seven areas that "The Seven Revolutions"ⁱⁱⁱ study nominates as being "revolutionized" are:

1. Nature and mode of conflict,
2. Population,
3. Challenges to governance,
4. The development and dissemination of economic integration,
5. Resource management and environmental stewardship,
6. Technological innovation and diffusion,
7. The development and dissemination of information and of knowledge,

Obviously, I cannot address today these points in any depth, this is a 20,000 ft jet propelled trip, in which I'll visit a few specific points in each category.

Key to this presentation is your participation. So please, don't hold back from blurting out spontaneous answers to the many mind boggling questions, that I'm about to ask you. It is what will make all of this information come alive for all of us.

The first stop, the nature and mode of conflict:

CSIS concludes from their study that over the next 25 years, it expects that the lines between lawlessness, crime, disorder, terrorism and war will become increasingly blurred; this will challenge governments to their limits in terms of their ability to manage and contain threats. I think we see signs of this already.

Think about this, over one third of the world is at war today^{iv}. One quarter of those conflicts in recent years involve struggles over vital natural resources.^v In the Middle East, 5% of the world's population lives on 1 % of the world's water^{vi}. This population also has the highest growth in the world followed by its neighbors in sub Saharan Africa^{vii}.

Question: How many children soldiers are currently fighting in armed conflicts? 300,000^{viii}

Question: how many children each week are expelled from American schools for bringing guns to class? 88^{ix}

Let's speed along to the second revolution-taking place the world's Population

CSIS concludes that there 6.3 billion people in the world^x while The Milken Institute in Los Angeles California concludes there a 8.8 billion^{xi}. CSIS projects that the population will peak in the next 20 -25 year at 8.8 billion^{xii} and the Milken Institute pegs this number at 10.5-11 Billion^{xiii}. They both agree that the world will grow by about 2 billion people and level of there for a while

before declining.^{xiv} The United Nations projects that the growth will stabilize in 2100 at eleven billion people.^{xv}

Of the world's population, 27 million are Slaves (forced labor, trafficking and child labor).^{xvi}

Question: how many babies are born every hour, minute, and second?
Eight thousand seven hundred, one hundred and forty-six, and 2.5 % respectively.^{xvii}

Question: in the year 2003 by which means did more people die? Armed conflicts or suicide? Suicide.^{xviii}

We all know that the aging of population is the most talked about challenge. The population is aging even in the developing Countries, despite the AIDS epidemic^{xix} and the fact that 82% of worlds smokers live in developing countries.^{xx}

Fifty per cent of the world's population today is under twenty five years of age.^{xxi} Did you know that the number of people over sixty years of age is expected to double by 2050? This will be the first time in history that there will be more people who are elderly than young. The current working age population will drop by fifty percent .^{xxii}

CSIS's projects that eight countries will account for half of the world population in 2050: Bangladesh, china, India, Nigeria, Pakistan, Ethiopia, the Democratic Republic of the Congo, the USA. The United States will be only developed country with a sustainable population because it will continue to grow by its immigration.^{xxiii} Today the greatest growth of the middle class is in India and china. I think, we already see a spill over effect in some SE Asian countries?^{xxiv} A major tend is the migration to cities. By 2015, there will be twenty one cities with populations over ten million. Three cities will be well above twenty million respectively Tokyo, Dhaka and Mumbai.^{xxv}

Flying on to the third Revolution, in Governance, project director, ERIK PETERSON from CSIS reports that quote," The challenge is adapting social organizations to the new challenges the world faces." [This will challenge governments to their limits in terms of their ability to manage and contain threats. Governments are already falling behind in responding to the needs of their constituents.](#) Greater authority has been and is being conferred to the individual, this is primarily through technology.^{xxvi}

An international opinion survey conducted in 2002 for the World Economic Forum by Gallup International and Environics, entitled the "Voice of the People," reflects the views of 36,000 citizens in 47 countries across six continents. According to the survey groups, their sample is statistically representative of 1.4 billion citizens. The key question asked was: how much do you trust 17 kinds of broad-based institutions to "operate in the best interest of society?" On the top of the trust list are the armed forces, followed by a distant second, Non Government Organizations, "education systems,"

and then The United Nations, respectively. The institutions most distrusted were the key 'democratic' political institutions: "parliament/congress" across the world. It's interesting to note that some of the legislatures that were trusted were those in "non-EU Europe" and "North America" Countries. The challenge is really seen in the responses to the Question: "Is your country "governed by the will of the people?" Forty-two countries of forty-six said "no." Those that yes were the Dominican Republic, Israel, Luxembourg and Malaysia. The second & third least trusted institutions were Global corporations, National corporations, respectively.^{xxvii}

One hundred of the largest economic entities are no longer sovereign nations, 42 are now corporations. In 2002 General motors was the 24th largest economic power in the world. Wal-Mart's revenue made it the 19th largest economic entity and placed its revenue far ahead of the Gross National income of SWEDEN.^{xxviii}

At the same time more and more Multi National Corporations move their domiciles off shore and pay fewer and fewer taxes to the sovereigns from which they were spawned. Considering the strains that already exist on the capacity of governments to respond to the needs of their constituents, questions arise as to how these governments (large and small) are and will address the interests of their people while handling these non sovereign giants?

Here is another aspect to consider.

Question: United State's corporations accounted for what percentage of the US \$212 Billion dollars contributed in the USA towards charitable causes across the world in 2002? The answer is 4.3% or USD 9.05 billion. The largest contributors were individuals, making up 75.8% of total contributions.^{xxix}

There appears to be a growing consciousness of Corporate Social responsibility. The UN Global Compact is an important step, yet one must remember that it is a voluntary process like that of the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) There is no compliance regulator only a verbal obligation.

Question: in the year 2000, how many international non-government organisations (NGO) were registered with the United Nations? There were 37,000 NGO's registered.^{xxx}

Some good news is that Non Government Organizations (NGO) have become more and more sophisticated in using technology to integrate with each other and globalize civil society undertakings. CSIS projects their governance roll will increase and their voices grow.^{xxxi}

Jetting along through the fourth revolution, the Development and Dissemination of Economic Integration, the globalization of cross border goods and services.^{xxxii} Here we see the benefits of integration pitted against

global inequities. The benefits are that global output has increased 3.6 percent annually for last 25 years and is expected to continue at this pace. The size of the global economy is forty-seven Trillion dollars, 4 times its size in 1975. CSIS believes that will continue to 2050. CSIS sees these benefits are equally distributed amount developing and developed countries. The UN development program maintains that the developing nations have achieved 30 years of progress that took developed nations 100 years. .^{xxxiii}

This leads us to the inequities. The income gaps are going to widen even further in the next 20 years. Question: how many people live on less than USD 2 a day? 2.8 billion. Question: how many live on less than USD 1 a day? 1.7 billion.^{xxxiv}

How many people do you think have what we, living in a developed country, perceive of as a 'life'? Perhaps nine hundred million, but even if there are a billion persons that means there are today 5.3 billion with lives that look absolutely nothing like what we would consider "a life"! Do remember that life has indeed gotten better for more people.^{xxxv}

However a noteworthy improvement, more people who don't partake in this developed world 'life' are more and more aware of it and their plight than before the technological revolution even with the digital divide between the developing and developed countries. This creates geopolitical instability.

Harvard Professor, Clayton Christensen in his book The Innovators Solution^{xxxvi} describes a perfect example of the classic type of opportunity in the developing world. Solar panels have had limited success in industrialized countries. It is not possible to take a customer who expects 90-100 percent results from a product and reduce it to 30 or 60 percent performance. On a trip to Mongolia, Professor Christenson discovered in the open air market that they were selling small sized solar panel with great success. The Mongolians were sticking hangars on top of them and receiving electricity and were thrilled because it certainly was an extraordinary improvement from no electricity.

Next stop is revolution number five, Resource Management and the Environment. To feed 8 billion people by 2025 the world would have to double food production, even in the face of all these grim facts. Keep in mind that starvation has actually declined drastically since World War II. ^{xxxvii}

The question is "can food production keep up with the population growth?" Of course, the issue is not just the production but also the distribution. One view is that public attitudes will need to shift to accept new advances in biotechnology. Those holding this view believe that these advances would make a difference. There are counter views that point out the inherent potential risks in bio tech foods.^{xxxviii}

- Half of the world population lives in food deficient countries.^{xxxix}

- People in industrialized countries eat between 6-7 kilograms per person of food additives per annum.^{xi}
- Ninety percent of these are cosmetic.^{xii}
- The world-wide market for these additives is US\$3.6 bio PA.^{xiii}
- Regulators in the UK claim that 540 of these are safe but,
- campaigners against them say there are questions about 150 of them.^{xiiii}
- One third of the worlds obese people live in developing countries. What an incongruity to the number of people without enough food.^{xiv}

I wonder if research will one day prove some relationship between the amount of additives one eats and obesity. And if the out dated old processed food that is dumped in developing countries may have any impact on the anomalous number of obese people there.

My last point on the food chain is this. At least 5765 years ago humans that were eating animals figured out that they should not eat the parts of the animal that other animals left behind: the spinal column and skeleton^{xv}. When the mad cow disease erupted in the UK, it was revealed that the feed manufacturers had for been grinding up all of this into the animal feed.^{xvi} What are we doing to ourselves?

In 2025, the most serious challenge is projected to be the scarcity of water. Populations are growing in the areas of the scarcity and the knock-off effects of poor sanitation, public health, irrigation are profound on geopolitical stability.^{xvii} I find it amazing that populations will be able to keep increasing in the face of these developments.

One flush of a developed country toilet uses as much water as the average person in the developing world uses for an entire day's washing, cleaning, cooking and drinking!^{xviii} There is certainly room for innovative solutions here.

Fresh water makes up 2.5% of the earths total volume of water. Three quarters of the fresh water is frozen in the polar ice caps.^{xix}

Question: how many people lack access to safe drinking water in 2003? 1.7 billion people by 2025, this is projected to rise to 3 billion.ⁱ

The expansion of deserts and soil erosion puts the livelihoods of 1 billion people at risk and cost 42 billion in lost incomes annually.ⁱⁱ

Let's take a quick look at energy and the environment: It's no surprise to me that the study by CSIS in Washington does not see a significant change towards a reliance on hydrocarbons coming within the next 20 years.ⁱⁱⁱ There are other studies that disagree.

CSIS does see a concentration of production of oil in the Persian Gulf and notes that there will be dramatic increases in demand in ASIA.ⁱⁱⁱⁱ We can already see this in China's guzzling of supplies. The US today uses 80% of

the car fuel in the world. By 2030 60% of the world's primary energy demand will come from the developing countries.^{liv}

Think about this, a kiwi flown from New Zealand to the UK emits 5 times its weight in green house gases.^{lv} The fuel used in the transportation via plane and truck pumps greenhouse gas into the environment. The pattern of transporting all these foods across the globe appears to be impacting global warming.^{lvi} This in turn impacts our ability to grow food. Then add to the recipe the fact that any fruit or vegetable's nutritional value is diminished by the distance it travels since as it travels the vitamin and mineral content deteriorate.^{lvii}

Perhaps when you go to buy that apple from a cold climate, you may wish instead to choose the tropical fruits that are grown locally.

We are told that it is more cost efficient to have our food flown in from the other side of the globe. (I can see that in many cases this may be true but not all.) Nevertheless, countries are no longer growing the food they could. Recently they did a study in the UK that showed that local produce (what was left of it) in reality was 30-40 % cheaper.^{lviii} Actually, we know this from our own experience, but we put it aside, we 'silo' it and go unconscious.

Jessica Williams in her well researched book *'50 Facts That Should Change the World'* states that flying one kilogram of lettuce from California to the UK uses enough energy to keep a 100 watt light bulb burning for eight days.^{lix}

There is a move in the US now for eco labels that will indicate the energy it took to produce and transport food.^{lx}

Does anyone else in the room see the enormous amount of perhaps unnecessary additional business possibly created by making things more complicated than they actually are and or need to be?

While I recognize that these practices have released many women from the kitchens in the cold western countries, we live with abundant household help throughout Asia and many unemployed people.

Does it make sense for us to unquestioningly adopt all the practices of cold western countries? Who are we letting do the math here? How are the total and real costs being analyzed? What are we doing to ourselves?

We are blessed to live in a region identified as a "hot spot" by environmentalists; this means a place that is responsible for the growth 80 percent of the world's bio diversity. 10 percent of the world's hot spots are in nature reserves today. Within the next 9 years it is essential for sustainability that we have 20 percent of the hot spots in reserves.^{lxi} Needless to say all the thrashing and burning and timber deterioration exacerbates this problem.

Question: if you put the amount of paper consumed in one year by the world end to end, how many times could you go to the moon and back? Seven times.^{lxii}

Jetting along to the sixth revolution, Technological Innovation and Diffusion, there are 3 sectors: computing, genomics and nanotechnology.

In computing, we are told that the remarkable speed of computing and advances in molecular and quantum computing will continue. A research team recently assembled 70 Sony play station devices into a super computer capable of a half a trillion operations per second.^{lxiii}

Question: How much faster are our computers today than in the 1970? 100,000!^{lxiv}

Computers will become ubiquitous in our bodies and homes. The digital divide will become greater and greater.^{lxv}

Question: What percentage of the world's populations has still not heard a dial tone? 70 percent!^{lxvi}

Genomics will change medicine:

1. by producing genetic diagnosis and genetic therapy.
2. By 2025 germ-line therapy will give you control over your own heredity.
3. The study of the body's proteins will give us a new pool for medicines and cures.

If you have children under 10, the introductions of these medicines could help many of them live to 120.^{lxvii}

Nanotechnology will make products lighter, smaller more efficient. A movement from this technology to the molecular and atomic levels is anticipated to entirely revolutionize material science, chemistry and physics.^{lxviii}

Now a quick flight through revolution number seven, the Development and Dissemination of Information and of Knowledge; Massachusetts Institute of Technology's (MIT) Nicholas Negroponte has noted that quote "a single fiber the size of human hair can deliver every issue of the Wall Street Journal ever made in less than one second", unquote.^{lxix}

There are 4 aspects of revolution defined here:

1. Information economy: economists traditionally identified 3 factors of production: land, labor and capital. In the information economy that is

developing all of these will be overshadowed by a new core factor: knowledge.^{lxx}

2. Knowledge diffusion: from the breaking down of national barriers to evolving new communities and cultures will increasingly be facilitated by cyber universities. Today there are some 55,000 distance learning courses in 130 countries. International Data Corporation estimated revenue from the e-learning industry would net USD\$11.4 billion in 2003.^{lxxi} At the same time MIT in 2003 began to put all its courses on the web free of charge.^{lxxii}

3. Knowledge Gap: because knowledge will become increasingly perishable more, constant lifelong education will be essential for those who want to succeed and survive. The gap will create greater social and financial inequities.^{lxxiii} Workers of the future will change jobs six times in their careers.^{lxxiv}

The UN Development Report indicates that industrialized countries are home to 88% of the world's internet users, less than 1% of the people in South East Asia use the internet.^{lxxv}

4. Information flows and security: Increased dependence on huge information flows will make us more vulnerable to hacking, identity theft, all types of predatory behavior.^{lxxvi}

With all this talk of the dissemination of knowledge and broad access to information, I have concerns about our education system which appears to be information abundant but wisdom weak. Today children in the developed world are being channeled in to skills development earlier than ever before. Most no longer have a broad based liberal arts education that includes philosophy and humanities at the university level. These are the studies that support development of well rounded human beings and that prepare them to meet the many different challenges in life.

While I hear parents marvel at the way in which their children manage a play station, a computer, telephone, music and the TV all at the same time. I wonder how we will bring forward new leaders in the next generations with the character set that will sustain them and enable them to:

- have conscience, the courage of their convictions while simultaneously taking into consideration the good of the whole community and system;
- hold the tension of many opposites while deeply pondering the extraordinary complexities to arrive at decisions in the best interest of man kind materially, physically, emotionally and spiritually.

In summary, reflecting on all this information, I see numerous business opportunities that can create sustainable economic value. Here are Seven Sectors of Business Opportunities. You can look for *'Gorillas'* [here](#).

Products & Services:

1. outsourced by NGOs as they provide a wide array of humanitarian services;
2. to meet needs of new life styles result in computing, genomics, nanotechnology;
3. in regional agriculture: Natural nutritious food (organic and other);
4. adapted for under served markets;
5. adapted to sustain the environment;
6. for active life from 70 – 100 years;
7. to support humans in overcrowded conditions.

There are other types of opportunities as follows:

- numerous opportunities for individuals to make decisions in their personal behavior and practices that will collectively make a difference to our physical reality and environment. Then to share their thoughts and experience with others which can support growth in collective consciousness. Women in the US are responsible for the decisions regarding 85% of consumer purchases. It must be close to the same here. Each individual action does matter.
- Enormous opportunities for service to our community of human beings, from which one gains the riches of empowerment, meaningfulness and connectedness.

Primitive men and women instinctively knew that there was a connection between the way they took care of their environment and the abundance it yielded them. Somewhere we lost that consciousness; it would be only natural to regain it.

There's so much to do.

ⁱ Toward a Science of Consciousness, "Tucson 2002" Tucson Convention Center Music Hall, Tucson, Arizona April 8-12, 2002, Sponsored by the Center for Consciousness Studies at The University of Arizona.

ⁱⁱ "The Seven Revolutions" and "The Seven futures" research studies by Center for Strategic and International Studies, Washington , DC.

ⁱⁱⁱ Ibid.

^{iv} Project Ploughshares Armed Conflicts Report 2003, www.ploughshares.ca/CONTENT/ACR/ACR00/ACR03-Preface.html.

^v Worldwatch Institute, *Vital Signs 2003*.

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