

Good Companies for Four Futures

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Korea is at a turning point in its history.

For more than fifty years, Korean companies have confidentially followed a path that was laid out before them by others. From now on, Korean companies can no longer be assured success by moving forward so surely by complacently treading where others have already trod.

As you well know, at the end of the Second World War and the subsequent Korean War, Korea was among the poorest nations in the world. Japanese imperialism, military occupation, and a bloody civil war left Korea stunned, stunted, and penniless.

But Korea was not without hope, resolve and determination. Korea had leaders who were confident about what should be done to move Korea forward, and how to do it.

The top leaders in the world from the most successful countries and companies, both through the United Nations and their own policies of foreign aid, promoted the idea of “development” and “economic growth”. By following “the stages of economic growth” that first the United Kingdom, then Germany and the United States, and then Japan followed so successfully, Korea would rise to the top as well, they said.

How to do this was laid out in numerous books and research papers, and promoted by the policies and incentives of thousands of development organizations from the developed nations. These policies were in turn then mandated by stern, unwavering political leaders. And, sure enough, Korean companies transformed themselves and Korea from one of the poorest nations into one of the most prosperous nations in the world in the blink of an eye.

Korea moved steadily and swiftly from being a poor agricultural nation with an overwhelmingly backward rural population with companies that produced and exported basic agricultural products, to companies that produced and exported cheap imitations of quality products made by others, to companies that produced

and exported equipment for heavy industries, to becoming a sophisticated urban people best-known worldwide for companies that produce and export automotive and electronic equipment of the very highest quality. Now perhaps, with the continuing success of the Korean Wave, Korea is in the process of becoming the first Dream Society, or at least the first Creative Society.

An amazing process. Good Korean companies are the envy of the world now!

But as Korea moves towards an economy of creativity and dreams, Korea is sliding into the unknown. There are no models to follow. Korea and its good companies themselves have become models for the rest of the world to follow.

Now it is Korea's turn to discover what a "good company" is, not only for itself, but also for all other companies in the world.

Korean companies have the potential, and I think, the responsibility, to become the kind of world leaders that companies in the US, Japan, and parts of Europe have recently been.

The current government said recently that a creative economy means "combining creative ideas with science, and information and communications technologies, to help create new businesses, markets and industries, and to generate more jobs."

But, what is new about that? Korea has been extremely creative in this dimension for many years, from its state-of-the-art high-tech shipbuilding industry, to the products of Samsung going from once meaning "cheap imitations" to now meaning "world-class, cutting-edge, highly-attractive electronic products". Korea is a very creative economy already.

So is the government saying that Korea should just become even more creative in the future, by intensifying what it already does very well?

Is this what being "good company" means in a future creative economy—simply doing better what you already are doing?

Perhaps, but there may be other ways by which you might be a good company in a creative economy. For example, you might encourage greater development not only of conventional IT products, but also of the creative arts themselves, such as the fine arts, drama, dance, cinema, television, fashion design, interior design, games, and toys. This is what it means to be a good company in a creative economy in many parts of the world today: to recognize that the arts and sports, *per se*, are valuable economic products, and so to encourage companies to develop even more valuable "cultural products."

This was the basis of the first Korean Wave from 1997 which emphasized companies that created popular culture products such as K-Pop, soap operas, and

electronic games. This meaning of a creative economy understands that creativity and culture are not distractions from—or mere decorative additions to—a “real” economy. To the contrary, companies that produce creative cultural product are one of the major bases for a new and even more profitable economy beyond the products of agriculture, industry, and information.

Another meaning of a good company within a creative economy goes much farther in this direction. It expands the development of creative content products beyond existing forms, into research and development of novel forms and novel media. In this meaning, good companies will focus on developing entirely new modes of culture, entertainment, and sports. You will go beyond reliance on electronic information technology and find ways to bring creative content into cutting edge biotechnologies, nanotechnologies, and new materials. By doing so, Korea will become the world’s leader in transforming all economies from their current focus on the maintenance of obsolete industrial/information societies towards becoming new and inspiring dream societies instead.

The electron was discovered little over one hundred years ago. It was only effectively utilized for communication purposes 75 years ago, and it emerged as a key driver of social and economic change in creating a high-tech “information society” perhaps forty years ago. There certainly are more and perhaps novel uses of the electron in the immediate future.

But for Korean companies to become a truly creative—and a world leader in global creativity—Korean companies must go beyond reliance on the electron. They must learn how to use other fundamental physical and biological properties for communicative and creative purposes.

Consider nanotechnology, for example. According to the original inventor of the term and concept, Eric Drexler, “nanotechnology has two key features: (1) manufacturing using machinery based on nanoscale devices and (2) products built with atomic precision”. Both features are essential. It is not enough that machines be extremely tiny—from one to one hundred nanometers in size—they also must be built with atomic precision. Many things currently called “nanotechnology” do not deserve the name, according to this definition, Drexler says.

According to Drexler, “nanotechnology of atomically precise manufacturing (APM) will use intricate arrays of high-frequency, nanoscale mechanical devices to move atoms and molecules from place to place, and put them together to make precise patterns of matter.”

Drexler compares current cutting-edge information technologies with future APM technologies this way:

“Nanoelectronic information technologies can put a computer in a desktop box; Nanomechanical APM technologies can put a factory in a desktop box. Digital

electronics provides a general-purpose technology in the world of information products; atomically precise manufacturing will provide a general-purpose technology in the world of physical products, somewhat like 3D printing, but able to do much, much more”.

APM-guided 3D printing offers great promises in many areas.

Nonetheless, in my view, the next big step beyond APM-scale 3D printing might very well be the teleportation of nonliving physical objects. Developments in quantum teleportation are very rapid. The teleportation of living things probably lies somewhat farther into the future, but I may be far too conservative here!

My point is not to predict what the next big technology will be. Rather, I wish to stress that good companies in Korea should be the world leaders in doing cutting-edge research in determining what the next big technologies are. Even more importantly, you must see that not only physicists and engineers, but also sculptors, painters, dancers, singers, gamers, and other artists work together in your companies along with scientists and engineers on the development and use of those technologies.

If Korea wishes to be a truly “creative society” it must go beyond its current over-focus on the STEM disciplines alone (Science, Technology, Engineering, Mathematics) and fully involve the STEAMSS as well (Science, Technology, Engineering, **Arts and Humanities**, Math, **Social Sciences**).

If Korean companies fully engage in STEAMSS research and development, there is no doubt they could truly become the leading creative forces in the world.

However, it has been said that if physics was the defining science of the 20th century, then biology might be the defining science of the 21st. If so, then learning how cells and their component parts communicate with each other and using that process (and the communication modes of other biological components) for creative human communication in ways analogous to the electron would be profound. Greater research into that possibility, especially into how artists might use the communicative process of cells, genes, and enzymes for culturally creative activities and processes, just as they use the electron now, would be revolutionary. Korean companies should be the world’s leader in such research and development.

I clearly favor the meaning of a creative society as one that uses all cutting edge technologies—and not just electronic technologies—for new, imaginative purposes. I urge you to consider that too, even more than you perhaps already are.

Over the last two decades a few futurists have shown that industrial and information societies are transforming into what Ernest Sternberg calls “The Economy of Icons”; what Rolf Jensen designates “The Dream Society”; what Joseph Pine and James Gilmore refer to as “The Experience Economy” or “The Conceptual

Society”, and what Virginia Postel writes of as “the substance of style” and the rise of aesthetic value in economic life. All of these people are using different words to describe the same phenomenon. I combine their essence into the phrase, “A dream society of icons and aesthetic experience”. It is a society that produces and consumes not information, but aesthetically-exciting dreams.

Rolf Jensen says,

"The sun is setting on the Information Society--even before we have fully adjusted to its demands as individuals and as companies. We have lived as hunters, and as farmers, we have worked in factories, and now we live in an information-based society whose icon is the computer: We stand facing the fifth type of society: the Dream Society".

Very importantly, Jensen sees society finally moving from a dependence on writing to the dominance of audiovisual images: "Today, knowledge is stored as letters; we learn through the alphabet--this is the medium of the Information Society. Most likely, the medium of the Dream Society will be the picture".

Jensen observes that Henry Ford was the icon of the Industrial Age while Bill Gates is the icon of the Information Age. "The icon of the Dream Society has probably been born, but she or he is most likely still at school and is probably not the best pupil in the class. Today, the best pupil is the one who makes a first-rate symbolic analyst. In the future, it may be the student who gives the teacher a hard time--an imaginative pupil who is always staging new games that put things into new perspectives." "He or she will be the great storyteller of the twenty-first century."

I entirely agree with Jensen that this is a possible future of the world. Indeed, it is already around us in many ways.

But if change towards companies exhibiting exceptional creativity is desired, then Korea's educational system is must change. There have been steps in that direction, but not nearly enough.

But what should the focus of a new educational system be: on identifying and fostering a few creative geniuses, or in bringing out the creativity in every Korean, young and old, richer or poorer? One answer might be to do both, but I believe that nurturing the creativity in everyone is by far the more important. To focus on a few geniuses discourages everyone else from being creative at all, or at least from being as creative as they could be. Everyone is a genius about something, and all geniuses are ignorant or inept in many other ways. Our educational systems should nurture, celebrate, and use whatever is the genius in each of us.

Everyone, in every good company, should be creative. It should not just be an attribute of a few people.

The essence of traditional education has been to foster convergent thinking: to help everyone learn the one correct answer. For this, rote learning and standardized testing is fine. To produce workers or managers for industrial and information societies, this kind of narrow and conformist education was good enough.

But for good companies in a creative economy—for a Dream Society (indeed simply to survive in the worlds of the futures)—we need to encourage divergent thinking. We need to help people understand that there are few if any right answers to the challenges of today and tomorrow, and so encourage learners to find many possible useful, functional, different answers, and to explore their consequences.

We should not foster a society of a few brilliant winners and many, many losers. To the contrary, we need to recognize that everyone can be a winner in some things and a loser in other ways; that we need to nourish all talents and help everyone work together towards creative and practical solutions to complex challenges.

Good Korean companies need to become what they have seldom been before—risk-takers on the global stage. For every product that succeeds and takes-off, a hundred products will crash and burn, along with the thousands of people and millions of won spent on developing them.

Are you willing to become a good risk-taking company? Is Korea willing to become a risk-taking society? I hope so, but if so, you must allow people to take big risks and fail, without their lives and futures being destroyed. Many risky new products will fail, and some ideas may seem to be ridiculous, obscene or subversive, but no one should be allowed to become a “failure” themselves if their ideas don’t work out. They should be enabled to try and try again, if they wish, and to fail again and again as well.

Now, a word about jobs and job growth.

A truly creative economy probably will not produce more meaningful jobs. That is the secret of financial success today: to get rid of as many jobs as possible. The way the owners of the really good companies of today make a lot of money is by employing almost no one and making nothing. If actually making products is somehow necessary, then they outsource the jobs to “cheap labor” somewhere else in the world. But that is only temporary. Many products now can be, and soon most will soon be, produced without any human labor at all. We really don’t need many people to produce things now. We don't even need many to *think* about planning to produce them, or for thinking about anything else. Robots do more and more of our work, and artificial intelligences already do a lot of our thinking.

For the most part, we require people to have jobs now not because we need their labor, but because we need them as consumers. More importantly, we need to keep people busy in meaningless activities called “work” so that they won’t have the time

and energy to get into trouble. This fact should not be ignored when anticipating the futures.

We need to understand that an economy of “full employment” like the kind we have tried to have for the last fifty to 150 years is not possible any more—unless energy and economic collapse occurs, in which case demand for manual labor will become widespread again.

Robots, artificial intelligence, autonomous entities, cyborgs, artifacts, ubiquitous technologies have already just about taken over all manual and mental jobs that once upon a time only humans could do. New, real jobs requiring human labor and intelligence will not emerge to take the place of the old, necessary jobs the robots have taken over.

It is time now to strive for a world of *Full Unemployment*. We must separate “work” from “access to products” that are produced without much if any human labor.

A world free of meaningless make-work should also be a world of great creativity. The one thing that humans still do better than their machines is to be imaginative in ways other humans find engaging. People could become very imaginative indeed if they were not required to labor all day at body-sapping, mind-numbing jobs.

The Dream Society of the future can be one of leisure, abundance, creativity, and full unemployment!

But, a Dream Society is only ONE possible future for Korea.

No country or company should commit to any one future until it has considered the major alternative futures. A dream society is one alternative future, but there are other futures you must consider as well.

For the past decade or so, I have also been calling the attention of decision makers in Korea and elsewhere to what I call ‘The Unholy Trinity, Plus One’. This is a future without cheap and abundant energy; with unstable climate, insufficient food and water, severe environmental pollution; with global population growth and local population decline; without an economy that distributes wealth fairly; and with governments that have lost the ability to govern.

Unless the challenges of the Unholy Trinity are addressed sincerely, you may have no dream society, and no information society, or even no industrial society. You may re-enter an agricultural society once again, at best.

A good company in such a future will be quite different from what one is now. In fact, almost everything that makes you successful now will be unsuccessful as the Unholy Trinity unfolds.

How can you produce anything without cheap and abundant energy? ample, wholesome food? a stable environment? and an economy that distributes wealth fairly and equitably?

A future of social and environmental collapse requiring New Beginnings is by far too big a risk to take unknowingly. Every company in the world should prepare for it, and be willing and able to embrace collapse and New Beginnings eagerly and successfully, if necessary.

You cannot count on the benign ways of the past continuing into the futures.

You must prepare your company, your community, your family and yourself for a possible future of New Beginnings, so that every person in Korea may enjoy a prosperous, meaningful life. I have discussed with many Korean leaders and citizens the possibility that Korea should become a Conserver Society, if a Dream Society is not obtainable.

Many years ago, I worked with the Science Council of Canada to help turn that nation from being a wasteful Consumer Society into becoming a sustainable Conserver Society. Tens of thousands of Canadians all across the nation participated in determining what a “Conserver Society” might be like. They developed three very different models for discussion and consideration:

Conserver Society Model 1

*Growth with Conservation
Efficiency and Expansion
Doing More with Less*

Conserver Society Model 2

*An Affluent Stable State
Moderation is the Ultimate Virtue
Do the Same with Less*

Conserver Society Model 3

*"The Buddhist Scenario"
Being, not Buying
Do Less with Less, and Doing Something Else.*

Canada was forty years ahead of the world—and itself—at the time it considered these options. The drive towards making Canada a Conserver Society was eventually killed by those who saw only unrestrained economic growth as desirable, with no apparent concern for human impact, or environmental and resource sustainability.

But the time may be ripe now for Korea, for Canada, for the world to think about a Conserver Future very urgently. At the very least, Koreans must consider this as seriously as Koreans consider the futures of an information society or a dream society. We need all the creativity we can muster to face the futures, whatever they may be.

There are vital roles for good companies in a Conserver Society. A properly-functioning economy is essential But it will be very different from the economy of today.

No one can predict the future. I cannot, and neither can you or anyone else in the world. We live in a world beyond prediction. But the future is within our influence and perhaps even our control in important ways.

So if you really want to be a good company within a creative economy within a creative society, you need to begin to do the hard, honest, creative work of assessing the tsunamis racing towards Korea from the futures—not only the wonderful new technologies of the Dream Society, but also the challenges of the Unholy Trinity, and the creation of a Conserver Society. After every Korean has done this, then the people of Korea can decide what path to create ahead. Don't put all of your futures in either a dream society, or in the continuation of an information society. That is far too risky.

Be creative and be courageous. I know you can do it. You have done it before. But the challenges are great and the stakes are high, so don't wait. Start here. Start now.