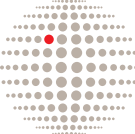




Cities of Opportunity



Partnership for New York City



Cities of Opportunity 2011 makes its fourth analysis of the trajectory of 26 cities, all capitals of finance, commerce and culture—and through their performance, seeks to open a window on what makes cities function best.

The Upper East Side of Manhattan, with Midtown in the background.

www.pwc.com

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The more cities change, the more forward-looking perspective matters...

The notion of the city has come a long way. But the heart of what a city is remains the same: people drawn together, today in ever-increasing densities and numbers, to work as a community.

Cities of Opportunity is dedicated to understanding what makes urban dynamics work, and communicating what we learn to government officials, policymakers, businesspersons, scholars and citizens mutually invested in the success of their city or cities.

This marks our fourth study. Like cities themselves, we keep evolving. *Cities of Opportunity 2011* includes more cities, greater analysis and

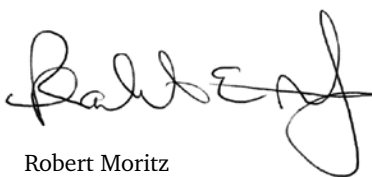
deeper exploration of core issues. This year we compare 26 cities—with San Francisco, Berlin, Madrid, Moscow, Istanbul and Abu Dhabi joining and Houston rejoining. We also look closely at a few of the challenges that are most pressing at the moment—regional management, education, sustainability, density, transportation and preservation.

It is not a coincidence that images of innovative and historic libraries (in Seattle and Stockholm) begin and end the interviews in our study. Nor is the focus on transportation, energy, environment, housing and health that weaves throughout. Both tangible and intangible—physical and intellectual capital—

have to be in balance for modern cities to enjoy healthy growth. Minds spur innovation; roads, rails, communications networks, schools and hospitals lay the groundwork on which new ideas can grow. In an ideal world, prosperity follows. But, as we all know, progress toward any ideal requires day-to-day work. This study represents our part in the effort.

Yes, *Cities of Opportunity* is changing. But the heart of what we are doing—trying to shed light on what makes major cities healthy—remains the same. All three of us sincerely hope you find value and interest in the study.

Yours truly,



Robert Moritz
Chairman and Senior Partner
PricewaterhouseCoopers LLP



Kenneth I. Chenault
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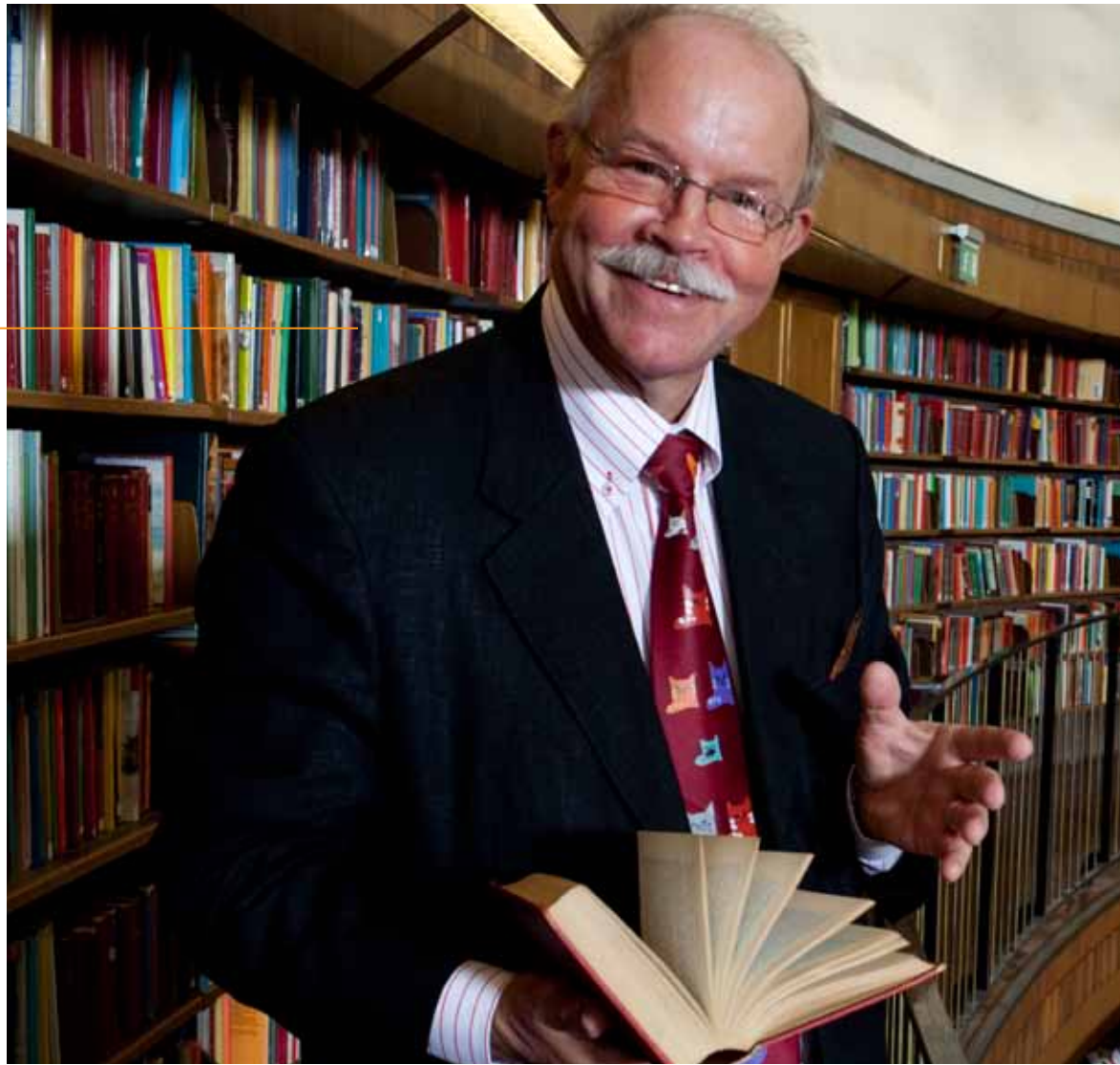


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Leif Edvinsson charts

... a course “from cities of hardware to cities of mindware”



Leif Edvinsson in the rotunda of the Stockholm Public Library, a city landmark known for Gunnar Asplund's design and the nation's first open shelf library.

As a professor at Lund University and Hong Kong Polytechnic University as well as the first Chief Knowledge Officer at the insurer Skandia, Leif Edvinsson pioneered understanding of the dynamics of intellectual capital in modern companies and communities—work that led the British Brain Trust to name him “brain of the year.” Here, Edvinsson discusses intellectual capital in various contexts, the successes and challenges of particular cities and the “neural planning” that can help cities prepare for a knowledge-centered economy where value is created by intangibles and networks of minds rather than machines.

Since Adam Smith wrote *The Wealth of Nations*, we've seen extraordinary advances industrially and scientifically. How do you think the wealth of cities will be generated in the future?

This is a fascinating question. I think the urban system might be regarded as a kind of springboard for value creation. It used to be a node for trade, once upon a time; before that, it was a node for defense. The next generation down the road for cities might be that they become innovation springboards—as Boston is in the US and more recently, Skolkovo in Russia—cities of innovation. However, very few cities today are like

that, because of the congestion, air pollution, and so on.

Do you see the physical quality of life in a city related to the quality of intellectual capital?

Absolutely. That's why this might be the way we progress: from cities of hardware to cities of mindware. But that is the quality dimension. This year's *Monocle* rankings of the most livable cities in the world were Munich at number one; number two, Copenhagen; and number three, Zurich. All small cities with easy access. You can bike around, and it's easy to build relationships in such cities.

In last year's *Cities of Opportunity*, some of the top, most livable cities were Stockholm, Toronto, Sydney, Chicago, and Frankfurt, all of which also did very well economically, so there's an interesting conjunction there. Do you think the model of the functional city of the future, which smart people will want to live in and help build, will be more like Copenhagen, Stockholm, or Toronto?

Yes, if there is a good airport.

Why is that?

Because you have a growing migration of brains in correlation to network relationships.

If you're connecting my brain with your brain, and we're connected to other brains, we can more than triple our revenues and value creation. We can afford to have more people living from our value creation. The problem lies in the political leadership not seeing that vision—the need for a system of migration of brain power into society, and its renewal over time.

Some studies show, for example, that it's easier to get in and out of European cities than Asian cities. So, good airports close by are becoming essential. MIT found that a city needs a good university and a good airport.

Is this for people moving in and out of different companies and universities, or does it include more general migration?

It might be that, down the road, we will have more knowledge nomads: people who, for example, work at CERN in Geneva for, say, three years. They might bring their families or, if not, commute from where they live. Which means the commuting possibilities become very important, and temporary migration becomes a kind of norm. I worked, for example, for two years in New York, commuting on a weekly basis, with my family in Stockholm.

How was that?

It was before the age of September 11th. It was very easy to get to the airport. Nowadays you spend as much time at the airport as on board.

Canada, and Toronto, has some special programs. They really try to find skilled people from around the world who have some particular intellectual capacity or skills.

It's a part of the Commonwealth tradition. Australia did the same. They started a very special brain import 20 years ago.

Do you think that will catch on worldwide?

It's a political issue. One needs courage, as a societal and political leader.

How do you envision the intelligent city of the future? What will it look like? What will its government, thinkers, business and social leaders be doing in areas like intellectual capital, and related areas, to assure continuing socioeconomic well-being?

I think there are at least three dimensions to this question, which is a very good and challenging one. The long-term, visionary perspective is that the future city, 25 years down the road, will be like a brain, where urban planning becomes brain or neural planning for the city. And we will be looking at how to nourish the synapses between brains by creating special mind zones instead of shopping centers. So, as the shopping center will be replaced by mind zones, the second dimension will require upgrading the skill of urban planners to the levels of neuroscience.

The third dimension is a focus on drawing the maps of urban value creation, to determine where value creation takes place in cities. It used to be the harbor. It used to be the industrial areas. It used to be the offices. In the city of the future, it will probably be the networks, which will not be captured in traditional statistics. So you need to develop the social and city intelligence to create maps to see where value creation is taking place.

And how does one create such a map?

It will probably build on some of the thinking in the pentahelix of PwC, the sustainable city development approach where you have a number of stakeholders and interaction among the stakeholders, and you also have another way of thinking of value creation. This networking evolution is also amplified by the social media, and well described in the recent book "Connected" by Nicholas Christakis and James Fowler. Traditional economics is about input/output, but the knowledge economy is about input/impact. You have to measure impact, and impact is measured best as a kind of opportunity cost.

Shenzhen's experience confirms that you have to prototype [a knowledge zone] because that reduces the risk level for urban planners: you run a little prototype, which might fail or be successful, and then gradually scale up the successful part. Shenzhen had about 30,000 people in 1979 and over nine million today, as well as a number of major universities.

To get back to mind zones, how would you describe them? What are they?

A mind zone is a kind of open space, an arena or Ba, as [Professor] Nonaka in Japan calls it, where the traditional square is replaced with a kind of quality-of-life meeting space. The closest illustration we have today is the knowledge café. But in Toronto, as well as here in Scandinavia, because of the climate during the winter, we need a kind of built-in meeting space, but still open. A kind of open innovation system, where people go in—you don't know who you'll meet, but you'll probably enjoy being there. It's like going to the Starbucks of tomorrow.

And how do you see a planner's skills combining with neuroscience?

We know today, for example, from of a discovery made during the nineties in Italy by Professor Giacomo Rizzolatti that when you sit next to a person in a Starbucks, your neurons jump from your brain to the other one. This is called "mirroring neurons." It used to be called a "meeting of minds." But now you can actually measure this with technical devices, which means you can visualize it.

Like a physical attraction, but intellectual....

Yes, an intellectual attraction. And then, if it can be measured, you can actually amplify it, or reduce it, or block it.

When you say "reduce," "block," or "amplify," do you mean creating an environment that's more conducive to intellectual communication?

Yes. But then comes the next question? How do you get paid for that? In other words, the deeper meaning of intellectual capital.

And how do you recognize people for constructive thinking, and reward them for it, for behaviors that actually build economic and social well-being? It seems that in many large organizations, "fitting in" is rewarded, while people who have different or creative ideas are feared or marginalized.

Yes; that is why, for example, we prototyped a kind of approach in which you are scored for the way you work—which you do already at PwC. There are four aspects to the scoring. The first relates to work performance, doing a good job. The second asks, are you helping your colleagues do a good job? This is much more challenging because one is now rewarding and giving

bonuses to collective value creation. The third asks, are you upgrading your skills during the year, which is actually about your renewal capability and how it is nourished. And the fourth one wants to know if you are building a good brand and image for your enterprise. These four very simple aspects represent a way of "reading" human capital. But then, what you see if you look at modern enterprises like Google and others, what really makes the value creation come through, is learning to work with relational capital, the network, and surrounding structural capital.

So value creation actually occurs when you connect the external network with internal brain power. That's where you have the multiplier function. And that's why a city can be regarded as a multiplier function. If you are importing brain power to Malaysia, for example, you can put it in the jungle but you can also put it into the Multimedia Super Corridor. In the Multimedia Super Corridor, you connect to both the people of Malaysia as well as on a global scale. And then you have collective intelligence amplifying your thinking as well as your value creation. This is precisely what the financial sector is about today. It's the network in derivatives.

We have to start thinking about the city as a cell—a stem cell, with tremendous potential. But also one that you can kill by not giving it energy, by not cultivating relationships. That’s why relational capital is so important for the nourishment and growth of intellectual capital.

Do you think there will be a day when the intangible factors that human beings contribute to a business or a city will actually be measured and rewarded, to motivate people?

It’s already taking place. This is the beauty of this global movement of intellectual capital, because you already have regulations policies in some nations promoting this. You have policies in Austria requiring all universities to make such reports, to highlight precisely what we’re talking about. And then you have the Japanese development. Research from the US shows that leadership is about the capacity to think 15 years down the road. In Japan, they are rewarding this way of thinking. So, if you’re rewarding 15-year thinking, it’s not about yesterday: it’s about tomorrow, about the thoughts of tomorrow.

Thinking that way seems to demand more openness of us as human beings, less tightness and jealousy.

Yes. That’s why we need to shape cities—and offices—more openly, not as closed fortresses. That’s why Starbucks as well as Googleplex as a campus is probably generating much more money and value than traditional offices. Just imagine if a city had the same kind of archi-

tectural and urban-planning skill at its disposal as the skill of the interior designers of Starbucks.

It seems as if people feel comfortable in that communal environment with the energy of others.

The neurons. The mirroring neurons. That’s why the English word for computer means a kind of algorithm machine. The French is “ordinateur,” or “ordinator.” The Chinese word for “computer” is “mind machine”—“dian nao,” electric brain.

What needs to be done to properly balance resources in cities, to pay attention to social infrastructure, education and healthcare, as well as roads and airports, energy and water?

What you see is a shift in investment flows. Federal Reserve statistics show that investment in intangibles in the US has surpassed investment in tangibles for the last 25-30 years. But no one knows, really, how to leverage this. Therefore, we’re still guiding and navigating the economy based on the tangibles, not the intangibles. That’s why we had the financial crisis, actually.

That’s why we have to start thinking about the city as a cell—a stem cell, with tremendous potential. But also one

that you can kill by not giving it energy, by not cultivating relationships. That’s why relational capital is so important for the nourishment and growth of intellectual capital.

And what specifically, tangibly, is relational capital?

It’s endless. It’s a multiplier function. Paul Romer called it the law of increasing rate of return. But traditional investment calculations are based on the opposite. The law of diminishing marginal utility divides everything into ever smaller pieces, which is why you amortize cars and houses and computers. Actually, though, the value of a computer increases if you load it with software.

It seems that the world we’re living in now is a doorway to another one. What’s occurring is almost a Darwinian natural selection in which the fittest will be those who understand that, and change.

It’s already happening. You saw that with the establishment of the Multimedia Super Corridor in Malaysia 15 years ago, where they tore down the oil palms and replaced them with the Corridor as a campus, which attracted the brains and transformed the nation from a developing country into a developed society. And you see that at MIT and Harvard Square,

To attract people to live in cities, you need to have clean air, and you need green areas and recreation opportunities. A city must be alive, not just during the workday, but day and night. And you need mobility to get where you need to be quickly.

Klaus Baur

and in places like Silicon Valley and Googleplex. It's already happening.

What are the critical ingredients—the particular collaborations, capacities, resource priorities—that a city should synchronize and focus on in order to generate not only greater intellectual capital, but real socioeconomic progress?

It starts with relational capital, and moves from relational capital to cultural capital—like soil for growing a young tree. And that leads to the notion of social capital as a kind of collective value creation, which will probably lead to traditional currencies such as the dollar being replaced by network capital, like the old bonds of a guild society. If you've noticed, China has proposed replacing the dollar as the chief global reserve currency with SDRs, the IMF's Special Drawing Rights created over 40 years ago. But SDRs are bonds of mutual trust, which is relational capital.

What recommendations would you give to city governments and city policy makers, or to businesses or universities operating in cities? What should they be doing, or thinking about, to help move us in this direction?

Three steps. Number one is, start asking some good questions about the social intelligence of

a city. Observe the signals. The second is, draw a new type of urban map, one based not on houses and streets and flow of water, but flow of knowledge—which will probably lead to urban planning that focuses on the in-between spaces....

What's an in-between space?

What's in between buildings. What's in between floors. What's in between people. It's like an old inverted photo—a negative—where you more or less see the non-tangible dimension.

Finally, the third step is to build and visualize the city as a mind or a brain. Consequently, you need to have neuroscientists come and work in urban-planning units.

Has that occurred anywhere?

A little bit, in a city called Solna, here in Sweden, where PwC ran a sustainable city development project two years ago. And the discussions were very much about developing a new type of city plan for the in-between spaces. But the most tangible example of what I'm talking about so far is the city of Helsingborg, which has inaugurated a project called H+, "H" for Helsingborg. One of the three architectural firms finally chosen by the city to work on the project, White arkitekter AB, in whose team I partici-

pated, actually calls its proposal "Mindzone"—which is about developing an urban mind zone, as I described it above, instead of a shopping center.

Do you think this is possible?

Oh, yes. Actually, it's very simple. It starts with thinking differently. Like Starbucks, which is the product of very simple thinking. The coffee shop as such is a Turkish innovation that is about 1,000 years old. It was imported by, among others, Vienna—the Vienna coffee houses—which were then transformed into the coffee shops of Throgmorton Street in London, where the London stock exchange started, in a coffee shop.

In a sense, it is like taking the coffee out of the coffee shop, but people still coming because it's nice to sit with intelligent people.

Exactly. It's the intellectual relationship instead of the physical one, as you said. But you need to have the intellectual appeal.

Do you think part of that is self-selection—peer selection—in which you feel safe because you can speak to these people, trust them?

Well, both. But if it's too much of the same, you don't get the nuances or the good, new harmonies. You need some

Traditional economics is about input/output, but the knowledge economy is about input/impact. You have to measure impact, and impact is measured best as a kind of opportunity cost.

differences. You need diversity, actually, to be nourished into something else. Otherwise, you have inbreeding.

Regarding diversity, we often work today in cross-cultural, global teams, which can be challenging. What do you see as the pluses and minuses of working in teams that intermingle so many cultures, so many ways of working and communicating? Do you think these challenges are just temporary and will go away?

I hope they won't go away. On the contrary, I hope they will increase. *MIT Sloan Management Review* had a very good article¹ on collective intelligence a few issues back. It's actually about combining brains. But the additional dimension that you need is age diversity, not only cultural diversity. That's what we learned when I formed my Future Teams many years back: we need to combine people from different parts of the world but also from different age groups. I used to call this 3G—three generations.

Take a piece of paper and pen, and write “age” on one axis and “creativity” or “entrepreneurship” on the other. The correlation, actually, between

these two is that it comes out like a U-curve, which means that you have a lot of people with high creativity at a young age, which then decreases onto the age of 42, and then goes up again.

It goes up again at an older age?

Creativity goes up again. It's very simple risk aversion. People in the age group around 40 have so much fear of losing their jobs, losing their careers, losing anything, so they don't really renew. They just surf. That is the cultural dimension of age diversity, on several levels.

We touched on this briefly when talking about Toronto and migration, but what do you think cities should be focusing on today to attract, to keep and develop, the kinds of professionals who will continue to build a healthy city? What should cities be doing and thinking about to create, as you say, the right “urban context” for knowledge workers?

I think this is research that [Professor] Richard Florida and his team have been looking into, and you can probably find some good research-based responses in his work. But in my view, it is about supporting people coming and going. That's why I sometimes say that the knowledge

city of tomorrow has to be like a very good knowledge port, a knowledge harbor. A knowledge “harbor” has more of a connotation of keeping whatever comes into it. A knowledge “port” connotes more of checking into a city in the Midwest or Mideast or wherever, staying there for a period, and then flying out, like CERN in Geneva. A “knowledge port” becomes a kind of architectural structure to support the migration and flow of brains in and out.

It seems that the rise of intellectual capital as a key engine in economic growth, globalization, urbanization, and the tremendous speed and universal connectedness we have, are generating mental strains and confusion over conflicting messages: quality of life on one hand, and the need to succeed on the other. Do you believe we're working too hard today, and that mass burnout is a threat to creative thinking?

It definitely is, actually. The Karolinska Institute has a very good stress-research team, which has shown that if you get severe stress illness, you develop genetic faults that might be inherited by the next generation. So there are very severe consequences when you do not create the right context for intellectuals, for brain workers.

¹ MIT Sloan Management Review, “The Collective Intelligence Genome”, By Thomas W. Malone, Robert Laubacher and Chrysanthos Dellarocas, April 1, 2010

If you're rewarding 15-year thinking, it's not about yesterday: it's about tomorrow, about the thoughts of tomorrow.

That being established, how do we make it better? How do we strike a balance in work life? In life?

It is related to the fact that we are moving from an industrial economy—which we left, actually, 30 years ago—into a knowledge economy. We don't have a taxonomy for it yet, but all the statistics show that, while we have left the industrial economy, our organizational system is still modeled along the lines of industrial society. Our accounting system, for example, is still based on the old Catholic accounting system born in 1494. These metrics are not made for and do not honor the investments in intangibles and knowledge.

Yet we're living in times of continual change.

Three hundred years ago, the most important jobs were actually those of the navigators. Today, we have replaced them with financial quants—which is not a good thing because it's actually reducing the collective wealth. Therefore, we need to develop a whole new job description and career for the intellectual economy.

We came out with a book in October [2010] in which we have looked into 40 nations during 14 years and their

intellectual-capital indicators.² The top ones are Scandinavian: the small nations. But it's very interesting because if you think about the situation 300 years ago, if you were sitting in Europe, realizing that you had no capability to support your family, you emigrated to the US, to the Americas. That was the Promised Land. But where is the Promised Land today?

While there may be no "Promised Land" today, people still migrate. If you are migrating to a city for work, or for education, either as a poor peasant or, say, an engineer or creative artist, what's different now from the time 100 years ago when people emigrated from a town like Karlshamn, from which a great number of Swedes came to America?

The difference is that you can cover huge distances in a very short time. For example, I was in Thailand last week, and now I'm back in Sweden, and next week I'll be in the south of France.

So you cover a lot of vast distances by communications means and tools. And that will probably increase over time. But then somehow we are also going to be more connected, like you and I are right now by

the old phone system. Skyping is coming, and we don't know what's around the corner with other developments.

There are many urban contexts, as you'd say, geographically and socioeconomically. Looking at cities in different parts of the world, and at how they should be building long-term intellectual assets and nurturing knowledge workers, what do you think a mature city in the US or the EU should be doing? Or is that too obvious a question?

It's probably the most complex one. One of the most appealing cases I know of is Shenzhen, which is, as you know, the formerly little city north of Hong Kong that was selected by Deng Xiaoping in 1979 as the prototype for transforming China from communist to capitalist. Its experience confirms that you have to prototype because that reduces the risk level for urban planners: you run a little prototype, which might fail or be successful, and then gradually scale up the successful part. Shenzhen had about 30,000 people in 1979 and over nine million today, as well as a number of major universities. Now it's being integrated with Hong Kong into an innovation zone. So the recommendation is probably to prototype a knowl-

²"National Intellectual Capital—A Comparison of 40 Countries," Carol Yeh-Yun Lin, Leif Edvinsson, Springer, ISBN 978-1-4419-7376-45

Starbucks as well as Googleplex as a campus is probably generating much more money and value than traditional offices. Just imagine if a city had the same kind of architectural and urban-planning skill at its disposal as the skill of the interior designers of Starbucks.

edge zone or innovation zone or urban-enterprise zone.

In order to concentrate resources intellectually and physically in one place?

To concentrate for migration, which is a paradox. You concentrate to have the flow, and to have the blow—but a controlled blow up or explosion. That highlights the importance of ease or convenience of getting in and out of a city. That's why Deng Xiaoping was extremely smart when he selected the little fishing village of Shenzhen—the same size as Karlshamn, by the way. But Karlshamn is still 30,000, while Shenzhen is now more than nine million.

What do you think older, industrial cities such as Detroit might do to revitalize themselves? In Sweden, Malmö and Luleå, for instance, are both doing fairly well after difficult times. Why do you think the Swedish cities are doing well, and is this another area where Sweden is doing things right in our time? And if so, why?

The heart of it is to have the courage for renewal. Gothenburg has been very good. They have renewed their harbor. Malmö has also been fairly good in renewing its harbor, but it has lost social capital because it didn't balance its immigration. It just opened its

doors to a lot of people without seeking an immigration of brain power, as Canada does, for example.

What you need is urban planning that moves from tangibles to intangibles. In Japan, they started to do that on a national level 25-30 years ago, when they began working on what is now called “softnomics,” or soft economics. They formed a research center, the Softnomics Center, with the big players, the big financial institutions, and the big industrial companies, as they were all quarreling with each other about the future. But a unanimous outlook developed by mapping the future potential of Japan.

You just came back from China yesterday. Were you there discussing these things?

Yes, I discussed a subject called “societal innovation.” Not “social innovation” but “societal innovation.” Shenzhen is a kind of illustration. Finland is also a very interesting illustration of this with its Committee for the Future. The Committee for the Future was shaped more than 10 years ago to create a kind of standing committee across political parties in Parliament and government to draw the map for the future of Finland. They meet twice a week for two hours, or four hours a week of

dialogue, of learning about the future as political mapping.

How much of the talk actually finds its way into action and results?

A lot. It took Finland out of the crisis after the collapse of the Soviet Union, put it on top of school rankings, and created a huge empire called Nokia. Recently, they formed what was originally called “Innovation University” and is now officially Aalto University, which is a kind of combined Harvard, MIT, and school of art. [Aalto University is formally made up of the School of Economics, the School of Art and Design, and the School of Science and Technology.] So it's art, technology, and economics. This year, we held the world's first training camp for societal innovation there in the first week of July, with the former director of the Committee for the Future, Markku Markkula and the Aalto Innovation University³.

What were some of the things you did at that training camp?

We—100 people from different parts of the world and different age groups, so it was very diverse—had eight days to do rapid prototyping on three themes: education, elderly services, and urban planning related to societal innovation.

³ See <http://acsi.aalto.fi/acsi+2010+homepage/>.

The long-term, visionary perspective is that the future city, 25 years down the road, will be like a brain, where urban planning becomes brain or neural planning. And we will be looking at how to nourish the synapses between brains by creating special mind zones instead of shopping centers.

To get back to China, it was told to us last year in *Cities of Opportunity* during our interviews that Swedes and Chinese are very much alike in their directness, in how they get down to business. Did you find that?

Well, yes. This is one of the differences between China and Japan. Chinese are very action-oriented and Japanese are much more contemplative. That's why, if you see what I'm trying to convey to you now, the cities of tomorrow are going to be much more intangible with knowledge harbors, like Shenzhen. In China, they have a national plan coming up for a national innovation strategy. Intellectual capital is one of the key areas because they are also going to spend huge amounts of money on research and development.

I sit on the board of the Center for Molecular Medicine at Karolinska Institute. We are starting a little subsidiary in Tianjin, China because if you do medical research over there, you achieve an upgrade in speed, which has a health impact. You might reduce the medical research cycle by 30 percent by doing it in China.

Do you find the upgrade in speed produces a comparable upgrade in quality and innovation?

Oh, yes. Just look at BYD today, for example. It already has an installation kit for transforming your car into a hybrid. If you have a GM car, you can actually transform it for some \$12,000 into a hybrid by BYD.

The last family of cities we should mention comprises the teeming emerging cities in Asia, Africa, and Latin America. It seems as if there's a tremendous tension between the hope and the challenge. What would you do to build intellectual capital in Mumbai, Johannesburg, and other cities in the developing world?

Brain import, localize structural capital, and commercialize it into markets that are both near and far away. For example, today, China is buying a lot of land in Africa as well as leasing land in Mexico for food production. That will have an impact on the trade of food between Africa and China, and will also upgrade the quality of food production in Africa.

In "Economic Possibilities for our Grandchildren," written in 1930, Keynes envisioned that, 100 years later, the economic challenges of sustaining life would be solved and our new challenge would be to become creative, to use our time constructively for ourselves and others. Do you think that, through advancing wisdom and intelligent use of science and technology, we can ever graduate to that? Where life is no longer a battle for survival?

To some extent, I think the intellectual-capital nations are there already. If you take ordinary Swedes, they work perhaps 30 years of their lifetime—which is about 85 years. In other words, they already spend close to 65 percent of their lifetime on something else other than going to a job. So, perhaps, we are witnessing this creative, quality-of-life existence already.

Do you think, however, that the risk in the social democratic cultures of northern Europe is that the benefits of that social model cannot continue? Will Swedes be able to continue to have the same sort of good life in the future?

Basically, yes. Because the research of Paul Romer and Brian Arthur has highlighted and established the law of

increasing returns (or marginal utility). If you're connecting my brain with your brain, and we're connected to some other brains, we can more than triple our revenues and value creation. Consequently, we can afford to have more people living from our value creation. The problem lies in the political leadership not seeing that kind of vision with the need for a system of migration of brain power into society, and its renewal over time.

If Detroit continues to live off the car industry, it is not going to survive. Like the old mill cities on the East Coast of the US such as Bridgeport. They are dead cities. They are ruins of the old industrial heritage, so we are probably going to see some kind of new value creation, but without the jobs left over from the industrial heritage—which emerged as a kind of social contract at the time slavery was abandoned. We now need societal innovations for the transition.

Paul Romer says that we need to learn to work with the rule-making of the future. And this is the

real core function of the city and its leaders. How do we make rules? How do we “re-rule” from being Detroit to becoming, say, the new Stockholm?

When you say “rule-making,” do you mean governance?

Yes. But governance has a connotation of maintenance for me, as in preserving a body, whether individual or corporate. The critical sustainability factor seems to be in the renewal capability or re-ruling.

Your valediction when you close your e-mails is, “Happy Futures.” Here in America, Roy Rogers, a singing cowboy, had a mid-20th century TV show at the end of which he rode off into the sunset singing, “Happy trails to you, until we meet again.” It strikes me that the sentiment in both is similar, the hope for a happy future. Don't you think that if we're happy and productive in the present, we raise the probability of a happier future?

You are very right, but we are born with the notion of enjoyment or fulfillment being in the future. Otherwise, we wouldn't survive. Furthermore, according

to Japanese research, the present is only between 10 and 14 seconds. Therefore, you are very quickly into the future. But some people try to govern themselves to be in the present, thereby losing the future.

One last question: What is your favorite city in the world, and why?

I have three of them: Stockholm, Singapore, and Sydney. Because they are water cities. They're close to the water, open, and very innovative, and they have a fairly good climate. When I was running my Future Center at Skandia, it was located on a peninsula. And then I learned that our bodies are roughly 80 percent water when we are born. It is about the harmony, yin-yian, between the internal and external water. And that has an impact on the way you think.

Thank you.

I bid you farewell with a Happy Future.

Thank you. Happy Future to you.

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