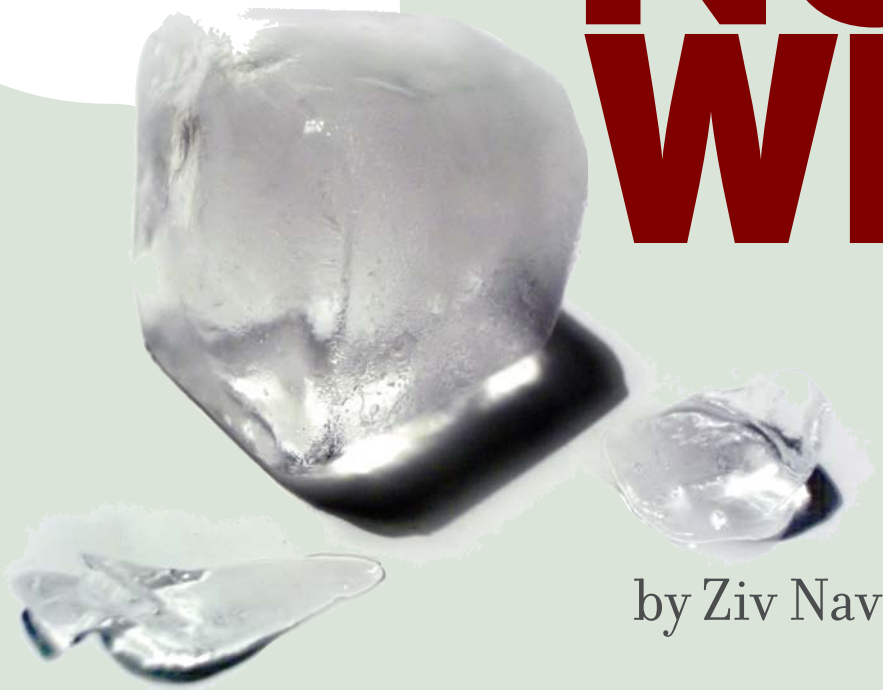
NOW WHAT?

continued ▸



by Ziv Navoth

> “ The future is here, it’s just not evenly distributed.”
> — William Gibson

1857 was a good year for the American ice harvesting industry. Household demand for ice had been growing at a steady pace and recent innovations enabled ice “farmers” to cut increasing amounts of ice from frozen ponds and deliver them to customers in locations as far as India.

“The ice trade,” boasted Frederic ‘The Ice King’ Tudor “has been growing and extending itself with no successful competitor for more than half a century, and there is reason to think it is yet in its infancy.”

Nothing could have been further from the truth.

Unbeknownst to the ice harvesters, advances in thermodynamics and chemistry had just led to the invention of an ammonia compression machine, also known as a “refrigerator.” While the ice harvesters continued to make incremental improvements to their saws, industry outsiders began manufacturing ice. Some ice harvesters recognized the tectonic shifts around them and became ice manufacturers. But most failed to recognise these changes and by the mid-1920s, the ice harvesting industry was gone for good.

I hear what you’re saying: “It’s easy to criticize an industry with 100 years of hindsight. If the ice harvesters really knew about the trends around them, they would have done something.”

I doubt it. There are many examples of how industry after industry fail to recognise that the world around it has changed, just like the ice harvesters did a century ago.

Consider the Telecommunications industry and a small startup called Skype. Skype was founded in 2003 to provide consumers with “free, superior-quality calling worldwide.” Less

than two years after the company was founded, more than 50 million people regularly use its software which enables people to call each other for free over the internet. All from a company which doesn't even employ a single telephone engineer.

There are many examples of how industry after industry fail to recognise that the world around it has changed, just like the ice harvesters did a century ago.

"I knew it was over when I downloaded Skype," explained Michael Powell, chairman of the Federal Communications Commission. "When the inventors of KaZaA are distributing for free a little program that you can use to talk to anybody else, and the quality is fantastic, and it's free — it's over. The world will change now inevitably."

Realizing your industry is going through a major transformation is one thing. Doing something about it is another. While this guide will help you understand the seven major trends that will change the way we work live and play, it'll be up to you to take the action. Then again, you could always wait till the storm blows by.

Predicting the future is difficult. Some might say, impossible. You might find it comforting then that the concepts explored in this guide have nothing to do with predictions. **Most of the things that will change the way we work, live and play have already happened.**

In Chapter 1, you'll learn about the most important and least talked about trend in the world. For the next generation, this trend will be fundamental and irreversible.

In Chapter 2, you'll learn about the fastest growing segment of the population and the dramatic business opportunities it represents. You'll also learn about the significant burden this segment poses to a society that is ill-equipped to support it.

In Chapter 3, we'll explore one of the most important institutions in modern society and see how it's about to change forever due to a principle that a university student discovered in 1932.

In Chapter 4, we'll try to understand the delicate relationship between companies and the societies in which they function. We'll ask whether companies bear any responsibility to the world in which they live and whether that responsibility is at odds with turning a profit.

In Chapter 5, we'll see why your job might disappear in the next year and who's most likely to get it.

Chapter 6 will expose you to the rapid change in the way the world's economy is evolving. You'll understand why this change is taking place now, who will benefit from it and who might lose.

The final chapter, chapter 7, will teach you about a radical movement that is at the base of some of the world's most heated conflicts. You'll understand how this movement will shape not only the future of business, but also the future of society.

Whichever way you choose to use this guide, remember to keep one question in mind: If this is really happening, what does it mean for you and your business?

The science fiction writer William Gibson once said that, "The future is here, it's just not evenly distributed." This guide is here to make sure you don't miss out on the future that's already here.

Chapter 1: Four Funerals and a Wedding

> “ The developed world is in the process of committing collective national suicide.”
> — Peter Drucker

Somewhere in the 1970s the world’s population growth began slowing down. Thirty years later, we are witnessing a reduction in the amount of young people that hasn’t happened since the Black Death arrived at the shores of Italy.

According to the US Census Bureau, half of the world’s population now lives in countries with fertility rates lower than what’s needed to keep the population from shrinking.

“The developed world is in the process of committing collective national suicide,” warns Peter Drucker, the father of modern management. And a quick look at a country like Italy shows why.

In the mid-60s, Italy gave birth to a million babies each year. Today this figure stands at 500,000. The result is that Italy, with a fertility rate of only 1.3, is the first country in the world with more people over the age of 60 than under the age of 20. To paraphrase a famous movie title, Italy has moved from being a country with four weddings for each funeral to having four funerals for each wedding.

And Italy is not alone. Consider the following:

- As you read these lines, Japan, the world's second largest economy, has stopped growing. Its population of 127 million is now beginning to shrink.
- By 2007, the number of Britons aged over 65 will exceed the number of those aged under 16 for the first time.
- By 2030, a whopping 50% of Germany's population will be over 65.

Developed countries aren't the only ones experiencing a fertility crisis: China, Algeria, Turkey, Lebanon and even Iran, all suffer from fertility rates that are below 2.0.

What's causing this shift in the population's structure and, more importantly, why should you care?

Let's start with the causes. One explanation for the falling birth rates is the integration of women into the work force in the developed world. Demographers also note that women are marrying later and getting better at family planning.

Then there's AIDS. AIDS, which broke out in 1981, has grown to become the fourth leading cause of death on a global basis and *the* leading cause of death in Africa. The impact of AIDS in Africa is simply staggering. The US Census Bureau estimates that "among countries in Southern Africa that would have approached or exceeded life expectancies of 70 years of age by 2010 in the absence of AIDS, several are likely to see life expectancies fall to around 30."

Now that we understand that the proportion of children in the developed world (as well as parts of the developing world) is rapidly decreasing, it's time to ask a simple question: So what?

The simple existence, let alone prosperity, of any country, depends on its economic output. If a country's population decreases with no increase in its productivity, the economy as a whole will shrink.

What's causing this shift in the population's structure and, more importantly, why should you care?

There are only two ways for a country with a dwindling working population to continue growing. The first is to improve the productivity of its workforce, so that the same, or a smaller amount of people, can produce the same amount of work.

Indeed, the last two decades have brought unprecedented improvements in employee productivity, much of which were dedicated to innovations in information and communications technologies. It remains unclear as to what extent this rise in productivity can continue unfettered or whether every country can adopt technology as skillfully as, for example, the US and the UK have done.

The second way a country with a dwindling working population can avoid Drucker's "national suicide" is by importing people into the country. But immigration, as we have seen in the last decade, is one of the thorniest topics with which the developed world has to deal.

Take Germany, for example. By 2030, Germany's workforce will have shrunk by 25%. This means that starting from the year 2020, Germany will have to import a million immigrants each year just to maintain the size of its workforce.

It is highly unlikely that such a move will be accepted with open hands. A recent attempt to establish a progressive immigration law for the country was rejected by the German parliament, echoing a wave of public opposition.

It's safe to assume that the youth will no longer be the fastest growing segment of your market.

And Germany isn't the only country with mixed feelings about immigrants.

France, Belgium, Italy and Austria, all have strong anti-immigration movements, which will make it increasingly difficult to bring in the very people these countries need to sustain their quality of living.

The tectonic shifts in the population structures of the developed world don't necessary spell bad news. Indeed, some of the trends associated with population changes can spell opportunity, if you know where to look. Consider the disappearance of the mass market.

According to management guru Peter Drucker, ever since World War II, companies such as Procter & Gamble, Unilever and Coca Cola have built themselves on the ability to appeal to the tastes of a young mass market. But in many countries the mass market is gone, and is now split into two or more age groups, such as the above 50s and under 50s. In reaction, companies are finding that they have no choice but to cast smaller and smaller nets to get the right message (and develop the right product) to the right people.

So what will the impact of this population shift mean for you and your company?

To begin with, it's safe to assume that the youth will no longer be the fastest growing segment of your market.

Then there's the question of how your company will find enough people to work for it and whether it has the capability to employ people who are past their retirement age.

But what you should really keep in mind is that unlike futuristic predictions that may or may not happen, the demographical changes described here have already taken place. **After all, the people who will enter the workforce in the next two decades have already been born.**

Chapter 2: Is Gray the New Gold?

> " Japan, Europe, and North America are places where people traditionally got rich before they got old. In the decades ahead, many national populations are going to get old before they get rich."
>
> — Nicholas Eberstadt

We've seen how fuelled by rapidly declining fertility rates, many countries in the developed world are about to face significant shortages in their workforces. But there's another factor that will make a huge impact on the economies of the developed world, as well as China and other countries: the incredible growth of the older population.

Human life expectancy has been growing steadily for the past 300 years. In itself, this is not a new phenomenon. But the combination of a large older population with a small younger one is new. Put simply, there aren't enough young people to support the old people.

"Japan, Europe, and North America are places where people traditionally got rich before they got old," notes political economist Nicholas Eberstadt. "In the decades ahead, many national populations are going to get old before they get rich."

Most social welfare programs are financed through payroll taxes. This “pay as you go” system is based on a mechanism where young workers are paying for the welfare benefits of older retirees.

As long as there are a lot of young workers to support a few older retirees, the system is balanced. When I say balanced I mean that the amount that gets taken out of your paycheck each month is more or less equal to the amount of benefits that retirees need each month.

That balance is gone. In 1945, the US had 50 workers supporting every retiree. By 1960, that ratio had dropped to 16:1. Today that ratio is about 3:1. If today’s demographic trends continue, things will get worse. In 2050, Europe’s ratio of workers to retirees is projected drop to 1:1.3. Italy, France and Germany will have a ratio of 1:1.

When such an abrupt change in the support ratio happens, there can be only three ways to keep the social security system going:

1. Increase the amount of money that current workers have to pay to support current retirees.
2. Decrease the amount of benefits given to the retirees.
3. Delay the retirement age.

The pension systems of most countries in the developed world are either bankrupt or on their way to becoming so. This is happening despite the fact that many countries have been increasing payroll taxes for the past two decades, to a point where many people are asking whether it makes sense to work so hard, given that close to half their income is spent supporting someone else.

Benefits to retirees have also been tinkered with. In 1979, the basic state pension in Britain was 23% of the average male's earnings; by 2000 it had fallen to 15%. By 2040, it's expected to drop to just 8%.

If people over the age of 50 account for half of all the discretionary spending in the United States, why do companies direct only 10% of their advertising dollars to this age group?

The one factor that hasn't changed much and that will have to change in the next decade is the retirement age. With average life expectancies in most of the developed world creeping towards the 80 year mark, a retirement age of 65 is simply unsustainable. In fact, some people are questioning whether retirement should be abolished altogether.

But what does a graying population have to do with your business? Why should you care if the over 50s are the fastest growing segment of the population? The answer is simple: growth. While the 16–34 year olds is the segment of the population that companies have focused on the most, it's actually the over 50s who represent the most interesting economic opportunity. This is simply due to the fact that they are growing in size and have more time (and more money) to spend than their younger counterparts.

If people over the age of 50 account for half of all the discretionary spending in the United States, why do companies direct only 10% of their advertising dollars to this age group?

"The average corporate ad rep is thirty-one, and the average ad-agency account executive is twenty-eight," says James Surowiecki in *The New Yorker*. "If the experts who tell companies how to advertise are tykes, it's not surprising that companies are convinced that they should be targeting tykes, too."

One company that understood the connection between demographics and the bottom line was sports shoe manufacturer New Balance. In 1989, the company decided to focus the whole company on one segment of the population: the Baby Boomers. At the time, the company was the 12th largest sports shoe company in the world. Today it ranks 3rd. Between 1997 and 2002, there was no growth in US sales of sports shoes. New Balance's growth during the same period was an average of 25% per year.

Once again, the writing is on the wall. The challenges of massive demographical shifts are clear and so are the opportunities.

Chapter 3: The Future of the Company

"Organizations will still be critically important in the world, but as 'organizers,' not 'employers'!"

— Charles Handy

To understand the metamorphosis through which the modern corporation is going, we need to understand why companies exist in the first place. We've seen the human race progress from a hunter/gatherer society by developing barter, money, guilds, chartered and limited liability companies. But this historical progression doesn't answer one basic question: Why would anyone want to set up a company?

The question isn't as silly as it may first sound. **If money and the price of goods are such good mechanisms for controlling economic activity, why do we need companies? Why can't we all go to the market and find someone who is willing to produce what we want for the price we want it?**

That was the question that 21 year-old commerce student Ronald Coase, set to find out in 1931.

A year short of completing his bachelor's degree at the London School of Economics, Coase was offered a scholarship to visit the United States and find out why some industries were structured differently than others.

Coase went to America and interviewed numerous executives from companies such as Ford and General Motors. But by the end of his year-long stay in the U.S., Coase returned without an answer to the industry structure question. What he did find would change the way we understand economics forever and earn him the Nobel prize.

THE INVISIBLE HAND

As a young student, Coase was introduced to the teachings of Adam Smith. 150 years earlier, Smith published an extensive work called "The Wealth of Nations." In it, Smith introduced the concept of the "invisible hand." By following our own wishes and wants, argued Smith, a natural balance between supply and demand would be created. The price of goods, according to Smith, was the only mechanism needed to coordinate economic activity. If you want something badly enough, its price would go up to the point where it would make sense for someone else to produce it.

Smith believed that since price was such a good mechanism for coordinating economic activity, governments shouldn't interfere with the way markets are run. Instead, they should let the "invisible hand" do its job.

However if Smith was right and the "invisible hand" is so good at bringing together buyers and sellers, if price is the only mechanism needed to help a manufacturer decide when and how much it should produce, than why build companies like Ford and General Motors in the first place? After all, running a company as big as Ford required employing and coordinating a complex hierarchy of managers and administrators to oversee the research, development and manufacturing of cars. Why not let the "invisible hand" take care of all economic activity?

The answer, Coase discovered, had to do with costs. Markets weren't as efficient as Smith had made them out to be. Yes, they were great mechanisms for organizing economic activity but they weren't frictionless.

Markets weren't frictionless because there were various costs associated with producing goods in the market. These "transaction" costs included finding the right producer, agreeing on what would be produced, in what quality and quantity and so on. Once made, these

Suddenly, knowledge could be transported instantly, anywhere in the world, for hardly anything.

agreements required management and monitoring — are the goods being manufactured or are we still waiting for raw material to arrive to the manufacturer? Will the products be delivered on time or will the illness of the plant manager spell delays?

The trade-off between the transaction costs of the market and the managerial costs of running a company is what gave birth to the modern company.

"Modern business enterprise," explains the economic historian Alfred Chandler, was born "only when the visible hand of management proved to be more efficient than the invisible hand of market forces."

THE DIGITAL HAND

What's common to managerial and transaction costs is that they both involve information. Information about the goods that someone has to offer, their price, quality and location. Information about the manufacturer's reputation, his financial stability and so on.

In a world where information is kept behind walls, these transaction costs tend to increase. And as Coase taught us, when the market's transaction costs are higher than letting a company do the same work, a corporation is brought to life.

But what happens when transaction costs fall?

Consider, for example, what happened the day the telegraph connected New York and Chicago. What once took a month to deliver by horse, could now be relayed over a wire in a matter of seconds. Transaction costs fell dramatically and within 30 years, information was everywhere within the organization. But for many years, this information remained confined behind corporate walls.

In the early 70s, a branch of the US defense department created a network that enabled individual computers to talk to each other and share information and the Internet was born.

Fast forward 20 years and a researcher by the name of Tim Berners-Lee invented the World Wide Web — a system for linking information from disparate computers.

With the World Wide Web, knowledge was finally released from its containers. Suddenly, knowledge could be transported instantly, anywhere in the world, for hardly anything.

And if knowledge, which is the critical factor in pretty much any type of industry of which you can think, can be easily transported anywhere and if technology is so good at organizing it, then will we still need companies in the future?

Chapter 4:
Can You Do Well By Being Good?

> " Only people have responsibilities... 'Business' as a whole cannot be said to have responsibilities... there is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits."
>
> — Milton Friedman

In September of 1970, an article appeared in *The New York Times* under the title "The Social Responsibility of Business is to Increase Its Profits." The article, which was written by the American economist Milton Friedman, argued that "business" as a whole cannot have responsibilities.

The only "social responsibility" a business has, according to Freidman, is to increase its profits (so long as it doesn't break the law). Any attempt to extend the responsibility of a business beyond turning a profit is deemed by Friedman as a "fundamentally subversive doctrine".

The visible hand of management, claimed Friedman, needs to focus on what it's hired to do — generate profits.

WOULD YOU LIKE SOME CHARITY WITH YOUR COKE?

A short stroll down a supermarket aisle shows that many of today's corporations disagree with Friedman's analysis.

My tea manufacturer supports the British Heart Foundation. My milk company is running a campaign to fight breast cancer. Even my vending machine is now linked with charitable giving. Overall, I estimate that half the products I buy are associated in one way or another with some kind of charitable giving.

Shouldn't all companies do the same? Shouldn't all companies actively engage in building a better world? Doesn't every company have the responsibility to 'give back' to the community? According to Milton Friedman, author of the 1970 article on corporate responsibility, the answers are no, no and no.

Friedman's views might be old-fashioned, but they are important for understanding the future of relationships between companies and the society in which they operate.

Corporate executives, according to Friedman, are hired by their employers (read: shareholders) to maximize the corporation's profits. If they choose to divert the corporation's funds to causes other than increasing profits, executives are, in fact, imposing a tax on the owners of the business, as well as deciding how this tax is to be distributed.

Taxation, argues Friedman, is the responsibility of the government. Charity is the responsibility of the individual. Corporations should steer clear from both.

Is there a way out of Friedman's dilemma? Is it possible for companies to be good and do well at the same time?

"The movement for corporate social responsibility has won the battle of ideas," claims *The Economist*, "and that's a pity."

"The movement for corporate social responsibility has won the battle of ideas," claims *The Economist*, "and that's a pity." Too many companies, argues the magazine in a recent report, invest in CSR because it sounds good, with dismal results for society, the company or both. But how do you spot a good CSR effort from a bad one? Consider the case of American Apparel.

American Apparel is the largest t-shirt manufacturer in the United States. Since it was founded in 1999, its revenues have doubled every year, with projections for 2005 coming in at over $250 million. Even though it offers its workers benefits that are unheard of in the garment industry, including free massages, free yoga lessons and free phone calls, American Apparel is far more profitable than well-established competitors such as Hanes or Fruit of the Loom.

The odd thing about American Apparel is that its formula for success is based on doing the opposite of everyone else. While most of the manufacturing sector is offshoring jobs to developing countries, AA keeps its workforce in downtown LA. While most companies in the garment industry are moving away from vertical integration, AA produces everything in-house. And while most of their competitors pay their workers a few cents an hour to sew a t-shirt, AA pays them more than $13.

How does American Apparel do it? According Dov Charney, the company's founder, AA can succeed like it does by fusing between socialism and capitalism, by being fair to their employees and by developing a quality product for which people will pay a premium price.

Financially, Charney's neo-socialist approach to business is delivering results. Not only are consumers lining up to purchase American Apparel's products (it just opened its 50th this summer), but would-be employees are lining up for a chance to work for the company. Last time they counted, 1,000 people were on AA's waiting list.

The fusion between charitable giving and business strategy isn't limited to the business world — it's changing the way individuals and countries help each other. For years, charitable giving was mostly done out of guilt, and (mis)managed accordingly. But in the past decade a new form of philanthropy has entered the scene: "Venture Philanthropy."

The Bill and Melinda Gates Foundation, for example, operates along the lines of a venture capital fund by investing only in causes that are manageable, measurable and give high returns on investment.

Venture Philanthropy borrows the best practices from the investment world to achieve better social returns on charitable giving. It believes that simply giving away money not only does not help the people on the receiving end, it can actually make matters worse.

Perhaps Milton Friedman was right. Perhaps the responsibility of a business is to increase its profits. But perhaps the best way of doing so is by actively investing in the world in which it operates.

Chapter 5: The Great Knowledge Migration

"We came to India for the costs, we stayed for the quality, and we're now investing for the innovation."

— Dan Scheinman,
SVP Corporate Development, Cisco

Innovations in information technology and communications have resulted in a drastic reduction of transaction costs. Many of the tasks that once took place within organisations, such as manufacturing, human resources and IT can be done as easily, or easier, through someone else.

Instead of being vertically integrated, companies such as Dell Computers are opting to become virtually integrated — using digital technology to coordinate production across dozens, if not hundreds, of suppliers.

This "virtual integration" raises a fundamental question about the necessity of the large corporation to continue and exist in its current structure. While we haven't seen a mass disappearance of companies yet, we are seeing a mass exodus of jobs to other countries.

Offshoring — the relocation of business processes to a lower cost location — is not a new phenomenon. In the past 20 years, two million jobs moved from the U.S. alone to other countries. What is new is the increasing proportion of service jobs that are being lost.

"There is no job that is America's God-given right anymore," says Carly Fiorina, Hewlett-Packard's former CEO, "We have to compete for jobs." Joseph Schumpeter would have agreed. The Austrian economist who is best known for his theory of "creative destruction" argued that a process of industrial mutation is essential for economic growth.

"The proper role of a healthily functioning economy," argued Schumpeter, "is to destroy jobs and put labor to use elsewhere."

"The proper role of a healthily functioning economy," argued Schumpeter, "is to destroy jobs and put labor to use elsewhere. Despite this simple truth, layoffs and firings will still always sting, as if the invisible hand of free enterprise has slapped workers in the face."

In Europe the story is similar. Europe's share of offshoring is already larger than the US's and Deloitte Research estimates that more than 800,000 financial-services and high-tech jobs will be offshored from Western Europe to low-cost locations such as India, China, Eastern Europe and even Africa and Latin America.

What's driving the sudden surge in offshoring? In three words: cost, quality and innovation. As the number of personal computers and broadband connections soar, the old 1990s ad-age that "Everything that can be digitized, will" is finally making an impact. Add to this the proliferation of tools such as e-mail, Microsoft Office and Google, and you get what *The New York Times* columnist Thomas Friedman calls 'Globalization 3.0' or "Everything that can be offshored, will."

India, which captures a third of each dollar offshored by the U.S. is leading this new form of globalization.

Why? To start off with, India boasts one of the most educated workforces in the world, with over 250,000 BAs and 60,000 MAs and PhDs. Then there's the famous cost differential. A typical U.S.-based software engineer will set your company back $60 an hour. The cost for the same engineer in India: $6 an hour.

"There are over half a billion Indians under the age of 25," said Thomas Friedman in a recent column, "And a growing slice of them will be able to do your white-collar job as well as you for a fraction of the pay."

This doesn't necessary spell bad news. Last year, a US programmer decided to have his cake and it eat, too. "About a year ago I hired a developer in India to do my job. I pay him $12,000 to do the job I get paid $67,000 for. He's happy to have the work. I'm happy that I only have to work 90 minutes a day, talking code. My employer thinks I'm telecommuting. Now I'm considering getting a second job and doing the same thing."

However, it's important to keep in mind that the migration of knowledge cannot be reduced to technology or even economics. Culture and pride play at least as an important role as anything else. It isn't surprising, therefore, that many people approach offshoring with trepidation, if not hostility.

German Chancellor Gerhard Schroeder was quick to label companies that outsource jobs to Eastern Europe as "unpatriotic." In the US, Tennessee has become the first state to actively discourage the practice of offshoring jobs.

Emotions are high not only in countries that are exporting jobs, but also in countries that are importing them. Consider this report, given by the Booker Prize Novelist — Arundhati Roy: "[I took him] to a 'Call Centre College' in Gurgaon on the outskirts of Delhi. I thought it

would be interesting for a filmmaker to see how easily an ancient civilization can be made to abase itself completely … On no account must the caller know that his or her enquiry is being attended to by an Indian … they have to change their given names. Sushma becomes Susie, Govind becomes Jerry, Advandi becomes Andy."

Perhaps a better approach to fighting offshoring is to actively embrace this …"creative destruction" and innovate ourselves ahead of the competition …

Protests aside, two things are clear: Offshoring is here to stay, and it's growing rapidly.

Faced with the massive benefits that offshoring business processes hold, companies that choose to pay more for the same work will find it hard to stay in business, let alone compete with their competitors that do practice offshoring.

Are all of us at risk of losing our jobs? Not quite yet. According to research at the University of California, only about 10% of jobs, such as office, business and financial support, are susceptible to being offshored. But countries such as India are hungry for jobs requiring higher skills, and perhaps more importantly, they've got the workforce to carry these out. Which is why we're witnessing more and more jobs in architecture, design and financial services, to name a few, moving to these countries.

Other than re-training employees that were laid off, it's not clear whether there's much to do to fend off the tendency of knowledge to move to (or to be bought from) where it's needed.

Perhaps a better approach to fighting offshoring is to actively embrace this new wave of "creative destruction" and innovate ourselves ahead of the competition — be it local or global. By

focusing on understanding our customers better than anyone else and realizing what value we can provide them that no one else can, we might just be able to extend, if not guarantee, our competitive advantage.

Chapter 6: The New Economies

> " Historically, smart people have always turned to where the money was. Today, money is turning to where the smart people are."
> — *The Financial Times*

"Asia's rise is the economic event of our age," announced *The Financial Times* a few years ago. " Should it proceed as it has over the last few decades, it will bring the two centuries of global domination by Europe and, subsequently, its giant North American offshoot to an end."

Craig Barrett, Intel's CEO, seems to agree: "The world has arrived at a rare strategic inflection point where nearly half its population—living in China, India and Russia—have been integrated into the global market economy, many of them highly educated workers, who can do just about any job in the world. We're talking about three billion people."

This is what happens when everyone can connect to anyone, at anytime, anywhere.

"We're moving into the world where the cost of PCs will be zero, the cost of bandwidth will be zero and the cost of storage will be zero," says *The New York Times* columnist, Thomas

Friedman. “And suddenly we bring into this world a few billion people. They have a different capital/labor ratio approach, different environmental or human rights standards, and a different approach to saving and consumption.”

Recent research from Goldman Sachs shows that it’s a question of years, not eons, before the world’s economic league table gets re-shuffled. “In US dollar terms, China could overtake Germany in the next four years, Japan by 2015 and the US by 2039,” claims the report “Dreaming With BRICs: The Path to 2050”. “India’s economy could be larger than all but the US and China in 30 years. Russia would overtake Germany, France, Italy and the UK.”

While we’ve already seen how India is capturing most of the benefits from the West offshoring its jobs, China is the one that is set to become the economic powerhouse of this century.

According to *The New York Times*, “China’s share of the world’s output of goods and services has nearly doubled since 1991, to 12.7 percent, closing in on the European Union’s 15.7 percent and approaching America’s 21 percent, according to the International Monetary Fund. No other nation comes close to China’s explosive expansion, all of it generating purchasing power for a rapidly growing work force. India has increased its share by 33 percent since 1991, but still accounts for a meager 4.8 percent of total global output. The American share, although clearly the largest, has not changed since 1980.”

Growth isn’t a question for China and India. It’s a must. Both countries need to maintain growth levels of at least 8% to provide for their massive, growing workforces. If India’s growth falls to 6.5% a year for example, India will see an additional 70 million without a job by 2012.

This need for growth won't remain local for long. Last year, China's Lenovo sent shockwaves around the business world by announcing its purchase of IBM's PC Business — a company three times its size. Indian companies are similarly eyeing Western acquisitions, leading many experts to predict that it won't be long before many of us in the West find ourselves working for owners from the East.

Competition from the East isn't something new for Western economies but China and India's growth and inherent capabilities don't look like anything the West has seen before. First, unlike other Asian economies such as Japan and Korea, both China and India's economies are open to foreign investments.

Second, both countries enjoy markets that are highly dynamic and fiercely competitive. This culture of innovation means that Chinese and Indian companies are learning as fast as their Western counterparts, perhaps even faster.

The third point about China and India is that they have a massive workforce that can easily be deployed as cheap labor. Much of their competitive capabilities come from the simple fact that they can out-price almost any manufacturer or service provider by a factor of 30% or more.

"Historically," wrote *The Financial Times* in 2003, "smart people have always turned to where the money was. Today, money is turning to where the smart people are."

To where are you turning?

Chapter 7: Peer Production

> "We are seeing the emergence of an economy of the people, by the people, for the people."
>
> —C.K. Prahalad

When Andrew Wiles was ten years old, he discovered his purpose in life. One day, while browsing through the math section of the public library in Cambridge, Wiles stumbled upon a book which was devoted to one particular problem in mathematics.

The problem is called "Fermat's Last Theorem", and for more than 300 years it had boggled the minds of the world's best mathematicians.

It took Wiles the better part of his life, but in 1993, he finally produced the first proof to "Fermat's Last Theorem", meticulously written in over 150 detailed pages distributed among his fellow mathematicians.

But there was one problem: Wiles had made a mistake in his proof.

"It was an error in a crucial part of the argument," said Wiles, "but it was something so subtle that I'd missed it completely until that point. The error is so abstract that it can't really be described in simple terms. Even explaining it to a mathematician would require the mathematician to spend two or three months studying that part of the manuscript in great detail."

So Wiles had to withdraw his claim to solve Fermat's theorem and return to the drawing board. But on the Internet, with its near impossiblity for erasing something once it's posted, copies of Wiles' proof kept on circling. Thus, with the (often uninvited) help of mathematicians from around the world, Wiles was able to make the correction to his proof. By 1994 Fermat's Last Theorem was finally solved. By 1994 Fermat's Last Theorem was finally solved, thanks to the power of peer production.

Peer Production is based on a belief that the wisdom of the crowds is greater than that of any given individual and that open networks of knowledge exchange are better than closed networks. It is a new model for collaborating on the development of ideas, products and services and it is quickly gaining interest in fields as diverse as software development, education and law.

> "The nearly 1 billion people online worldwide — along with their shared knowledge, social contacts, online reputations, computing power, and more — are rapidly becoming a collective force of unprecedented power. For the first time in human history, mass cooperation across time and space is suddenly economical."
> — *BusinessWeek*

While the Peer Production movement itself is relatively new, the foundations of collaboration behind it aren't. Peer review is the backbone of scientific research. Many fields, from law to music, depend on the ability to build on top of an existing knowledge base.

It wasn't until the rise of the Internet and the World Wide Web that a critical mass of people could log on and become part of Earth's Biggest Brain.

By now, most of us have heard about a new computer operating system called Linux, a direct competitor to Microsoft's Windows operating system. Most of the websites you visit, for example, are powered by computers running Linux, not Windows.

The notion of a group of volunteers getting together to write 30 million lines of computer code is indeed bizarre.

What many people don't realize is the fact that there is no single company that's responsible for developing Linux.

Frustrated with the inability to run Microsoft's operating system on UNIX machines, a young computer science student named of Linus Torvalds decided to write his own operating system. If writing an operating system on your own sounds like a crazy idea today, it was even a crazier idea back in 1991. Torvalds had no intention of building the operating system on his own. His idea was to get a group of enthusiasts to collaborate on the project and build it together.

The notion of a group of volunteers getting together to write 30 million lines of computer code is indeed bizarre. After all, it took Microsoft numerous years and hundreds of qualified, well-coordinated engineers to develop its operating system.

But Linus's experiment worked, and within a few years he and his collaborators had written Linux, which runs on about 25% of today's servers.

Linux soon drew the attention of Microsoft and it was no surprise that the close-walled company ranked Linux as one of its top threats: "The ability of the … process to collect and harness the collective IQ of thousands of individuals across the Internet is simply amazing," read an internal Microsoft document that was leaked in 1998.

Effective as it may be, the Peer Production phenomenon is by no means embraced by everyone. From software executives to music executives, many people in the world believe in the power of closed systems to maintain and preserve existing bodies of knowledge.

"Most think about these issues … as if there were simply questions about the efficiency of coding [software]," claims Stanford Professor Lawrence Lessig. "Most think about them as if the only issue that this [collaboratively written software] code might raise is whether it is faster, or more robust, or more reliable than closed code. Most think that this is simply a question of efficiency. Most think this, and most are wrong."

The case of Wikipedia underlines Lessig's point.

One of the fastest growing online destinations, Wikipedia is a collaborative online encyclopedia. A grassroots phenomenon, Wikipedia has already amassed more than 700,000 entries on every topic imaginable, all in the spirit of Peer Production: anybody can write an entry, and anyone else can improve it.

Which is exactly the problem that Ted Pappas, the executive director of the Encyclopædia Britannica has with Wikipedia. **"The premise of Wikipedia is that continuous improvement will lead to perfection," said Pappas. "That premise is completely unproven."**

Robert McHenry, a former editor at EB was more colorful in his attack. **"The user who visits Wikipedia to learn about some subject," said McHenry, "is rather in the position of a visitor to a public restroom. It may be obviously dirty, so that he knows to exercise great care, or it may seem fairly clean, so that he may be lulled into a false sense of security. What he certainly does not know is who has used the facilities before him."**

The concept of Peer Production goes well beyond software development. Whether it's the proliferation of blogs, the popularity of music-sharing services or the emergence of podcasting, new forms of mass collaboration are changing the way we work, live and play.

"It's the democratization of industry," says business professor C.K. Prahalad, "We are seeing the emergence of an economy of the people, by the people, for the people."

The "democratization of industry" might sound like a good thing, but when it comes to a force as powerful as peer production, we really need to ask "good for who?"

The music industry is fighting the music-sharing networks, newspapers are trying to diminish the power of blogs and China, with its insatiable need for innovation and growth, just decided to ban the peer-based free telephone provider Skype. Oddly enough, the Chinese announced their ban on the same day that eBay, the mother of peer production enterprise, announced it was buying Skype.

Afterthought

> " We have no future because our present is too volatile. We have only risk management. The spinning of the given moment's scenarios."
>
> — William Gibson, *Pattern Recognition*

I hope that this guide provided you with some patterns on how the future might be different from the world in which we live and how you can begin preparing for it today. I also hope that the ideas presented in this guide will form as an engine for talking about the future with your colleagues and customers.

As Linus Torvalds has shown us, the ability of people to come up with new products and services should not be underestimated, and in the spirit of Peer Production I encourage you to contact me with your thoughts and ideas on how to better manage the future.

In her book *The Future and its Enemies*, Virgina Postrel writes: "How we feel about the evolving future tells us who we are as individuals and as a civilization: Do we search for stasis — a regulated, engineered world? Or do we embrace dynamism — a world of constant creation, discovery and competition? Do we value stability and control? Or evolution and learning? Do we think that progress requires a central blueprint? Or do we see it as a decentralized, evolutionary process? Do we see mistakes as permanent disasters? Or the correctable byproducts

of experimentation? Do we crave predictability? Or relish surprise? These two poles, stasis and dynamism, increasingly define our political, intellectual and cultural landscape."

Where do you fit in?

WANT TO KNOW MORE?

Peter Drucker's book *Management Challenges for the 21st Century* was the inspiration for this manifesto and should be read by anyone wanting to better prepare for the future.

Tom Peters is the best prognosticator in the field of management and innovation.

THE CHANGING NATURE OF THE FIRM

At 95, Nobel Prize winner Ronald Coase is as lucid as ever. This interview offers an excellent introduction to his ideas.

John Micklethwait and Adrian Wooldridge's *The Company: A Short History of a Revolutionary Idea* is one of the best books on the nature of the corporation.

Law professor Yochai Benkler is at the forefront of adapting economic theory to the new forms of economic activity.

David Wolfe is one of the leading authorities on the aging population and the opportunities its presents to business.

INNOVATION

University of Michigan's C. K. Prahalad has two books worth reading. The first *The Future of Competition: Co-Creating Unique Value with Customers* shows how companies are increasingly collaborating with their customers on the development of new products and services. The second, and the far more ground-breaking is *The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits*, which argues that innovation, and profits from the world's poorest, is the new frontier.

James Utterback's *Mastering the Dynamics of Innovation* is one of the best books written on the subject of innovation and its ability to form and transform whole industries.

PEER PRODUCTION

One of the main contributors to the conversation on open vs. closed networks is Virginia Postrel. In her book *The Future and Its Enemies: The Growing Conflict Over Creativity, Enterprise, and Progress*, Postrel argues that rather than trying to control our destiny we should embrace the future, whatever it may hold.

Stanford professor Lawrence Lessig is one of the leading figures in explaining, and defending, the phenomenon of Peer Production and its software offspring, Open Source.

When it comes to understanding the past and future of Globalization, *The New York Times* columnist Thomas Friedman is the best. His new book *The World Is Flat: A Brief History of the*

info

ABOUT THE AUTHOR

Ziv Navoth began his career by selling advice on a beach in Goa, India. 10 years later he founded Verve! where he helps organizations imagine what the future might entail, what it will mean to them, and how they can take advantage of it.

Ziv has consulted and given talks to numerous organisations such as Microsoft, GE, Ericsson and RealNetworks. He has appeared on The Money Channel, MSNBC, and Bloomberg TV.

Ziv holds Bachelor's degrees in Psychology and Philosophy from Tel-Aviv University and an MBA in Innovation, Strategy, Information and Technology from Theseus Institute in France.
Contact Ziv at ziv@verve.nu. Wesbite: http://www.verve.nu

DOWNLOAD THIS

This manifesto is available from http://changethis.com/18.NowWhat

SEND THIS

Click here to pass along a copy of this manifesto to others.
http://changethis.com/18.NowWhat/email

SUBSCRIBE

Learn about our latest manifestos as soon as they are available. Sign up for our free newsletter and be notified by email. http://changethis.com/subscribe

info

WHAT YOU CAN DO

You are given the unlimited right to print this manifesto and to distribute it electronically (via email, your website, or any other means). You can print out pages and put them in your favorite coffee shop's windows or your doctor's waiting room. You can transcribe the author's words onto the sidewalk, or you can hand out copies to everyone you meet. You may not alter this manifesto in any way, though, and you may not charge for it.

NAVIGATION & USER TIPS

Move around this manifesto by using your keyboard arrow keys or click on the right arrow (→) for the next page and the left arrow (←). To send this by email, just click on  .

HAVING PROBLEMS SAVING TO DISK?

First, make sure you have the latest version of Acrobat Reader 6 which you can download from http://www.adobe.com/products/acrobat/readstep2.html. If problems persist, it may be due to your Acrobat Reader settings. To correct the problem (for Windows), a reader, J. Hansen, suggests going to your Acrobat Reader Preferences > Options > Web browser Options. Check the "Display PDF in Browser" option. Then click on Save to Disk  .

KEYBOARD SHORTCUTS	PC	MAC
Zoom in (Larger view)	[CTL] [+]	[⌘] [+]
Zoom out	[CTL] [—]	[⌘] [—]
Full screen/Normal screen view	[CTL] [L]	[⌘] [L]

info

BORN ON DATE

This document was created on 12 October 2005 and is based on the best information available at that time. To check for updates, please click here to visit http://changethis.com/18.NowWhat

ABOUT CHANGETHIS

ChangeThis is a vehicle, not a publisher. We make it easy for big ideas to spread. While the authors we work with are responsible for their own work, they don't necessarily agree with everything available in ChangeThis format. But you knew that already.

ChangeThis is supported by the love and tender care of 800-CEO-READ. Visit us at main site www.800ceoread.com or at our daily blog blog.800ceoread.com.

LAST PAGE READ