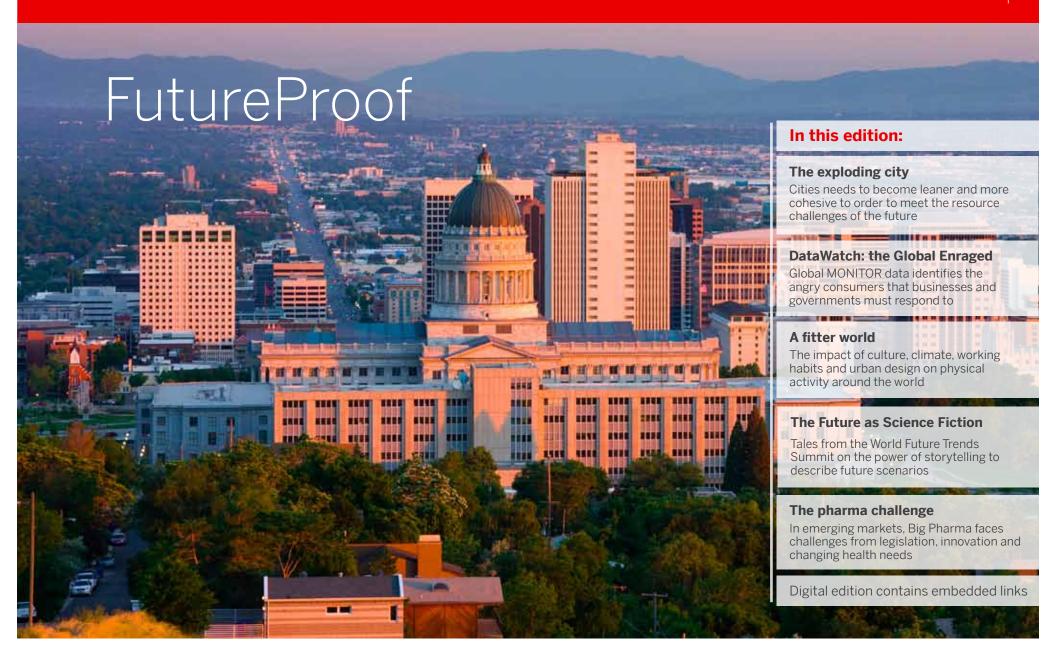
Welcome to FutureProof, The Futures Company's regular briefing about current global strategic and consumer issues with perspectives from our various international centres. Our purpose here is to broaden horizons and share some of our bigger picture thinking with you.



The exploding city

by Andrew Curry

On 31 October 2011. **Danica May Camacho** was born in a hospital in the Philippines, surrounded by photographers. Danica was a symbolic baby, chosen by the United Nations to mark the day when the earth's population hit seven billion. It took 123 years to grow from one billion people to two, but only 12 years to grow from five billion to six, and 13 years to grow from six billion to seven. And still it keeps growing, to 8bn some time before 2030 and 9bn by 2050.

Another landmark was reached in 2007, when for the first time half the world's population lived in cities. By 2030, that figure could have climbed to 60%. Put together, those two data points tell

much of the story of the planet over the next decade: more people, living in more cities.

This is reshaping the map of the world, as new types of cities are emerging driven by a combination of population pressures and economics. Megacities are becoming mega-regions: the 'mega-city' which includes Hong Kong, Shenzhen, and Guangzhou now comprises 120 million people, while the mega-city that links Rio de Janeiro to São Paulo has reached 43 million.

And then there are the city-regions, where a growing city pushes beyond its traditional city boundaries, and sometimes across national boundaries, to connect with its surrounding towns, creating new labour markets and new economic opportunities.

Cities are fundamentally associated with economic energy, innovation, and growth. They take up a tiny proportion of the planet's surface, but they represent 66% of economic activity and 85% of technical and scientific innovation. The link is a close one. "The prosperity of nations", says the UN-Habitat report from 2010 "is intimately linked to the prosperity of their cities."

The unsustainable city?

There is a cost to this: the city's environmental footprint is huge and unsustainable. London's footprint almost twice the size of the UK, while Vancouver's is 178 times the city's land area. Cities do produce a disproportionate share of value but there is a price for this: they consume 60-80% of the planet's energy and generate 75% of its emissions. This is partly because energy and emissions tend to be related to standard of living, and people tend to be richer in cities.

And, although it is easy to overlook this, cities in the emerging world do decline.

There are multiple factors, but they usually include economic decline, poor housing, environmental problems, and poor city management.

A city which is economically and environmentally sustainable needs to shrink its footprint radically and make sure that its infrastructure works.

This means managing six issues:

- energy
- ◆ transport
- housing
- waste
- food
- inclusion and cohesion.

It's worth imagining the sort of changes we'll see in cities over the coming decade as they to get to grips with this set of issues. Resolving most of these issues requires re-imagining the city

Cities and Urban Areas in 2020 **200 Largest Cities** city dwellers in China 14% breathe air considered people in Mexico City unsafe by the EU ire using so much water predicted for Asian cities in 2025 20% of the city population 889 million in China is obese; the projected number of the whole with high urban of slum dwellers congestion lose worldwide in 2020 to city traffic

The Urban Poor





There is a new global poor, suffering similar inequalities of opportunity, healthcare and education.



Washington D.C., Miami and New York have similar levels of inequality to Nairobi, Buenos Aires and Abidjan.



Life expectancy of African Americans in the US is about the same as people living in China.

as an organism, which is a producer as well as a consumer of the essential materials that make city life possible.

Energy: Solar will become more important as prices fall. The ability to produce its own power will become a prerequisite of new buildings. Designing out energy use — where building design reduces heating and cooling requirements — will also be increasingly important.

Transport: Low-tech, but it works. Expect to see a big increase in bus rapid transit systems, as in Bogotà, where it has been redesigned to give the bus priority. These combine the benefits of reasonable commuting speeds, low price for users, and

reasonable passenger volumes, while also not involving big capital costs on infrastructure.

Housing: Density will increase, reducing transport costs and energy consumption, and thereby also pollution. Compactness also reduces building and infrastructure costs. Houses will become greener — literally — as green rooves and garden spaces replace tiles and concrete to deal with intensifying rainfall and urban warming.

Waste: Waste will stop being defined as a problem and become a resource, providing raw materials and energy rather than going to dumps and landfills. Much of the aluminium used in canning is already reused, and

the 'urban mine' concept that has developed, notably in Japan, extends this to valuable materials, especially from electronic products. These are small steps to a coming world of 'closed loop' production.

Food: The city will go back to the future. Cities will grow far more of what they need within the city limits. This is for reasons of food security, and wellbeing, and as a way to make good the several million hectares lost to food production through land degradation and urban expansion. Expect to see urban farms at different scales, including 'vertical farms' using water-based growing systems such as hydroponics at scale.

So why is inclusion and cohesion important? Many cities continue to function with high levels of inequality, and relatively high degrees of social

"One in every three people who lives in a city in the developing world lives in a slum"

UN-Habitat report 08, p108.

separation between rich and poor. But they function much better when they're cohesive. The United Nations-Habitat report in 2010 noted that cities with

Waste as Enterprise

In the world's poorest cities, between one third and one half of solid waste remains uncollected. It accumulates on wasteland and in the streets. creating health hazards and pollution. One waste-pickers enterprise, Ciudad Saludable, has been working for more than 20 years across the cities of Latin America (and now in India as well) to increase the status of waste-pickers in the cities of Latin America. developing a system of selfreliant, community-run microbusinesses that are dedicated to processing urban waste and promoting cleaner and healthier cities. Its founder, Albina Ruiz, was honoured last year by the UK's Royal Society of the Arts. Her secret: she gives the waste-pickers esteem by getting them to think of themselves as entrepreneurs; she persuades cities to recognise their work as having social and public benefit, reducing the health and physical risks of waste-picking; and she persuades communities to pay for waste to be cleared by connecting the relatively low cost of clearing waste to the high costs of medicine.

greater social inequality "generate high social and economic costs, not only for the urban poor but for society at large." Whereas cities which are better at including their poor are more vibrant culturally and economically dynamic.

The proportion of city-dwellers in slum areas declined over the past decade from 39% to 32%, but the absolute number went up, because of global growth in cities. Many in slum areas are more likely to be poor and uneducated, more likely to be migrants or from minorities, and more likely to be women. They generally have greater health problems, less access to schools or hospitals, and longer trips to work. And while the drift from countryside to city has now all but slowed (new city-dwellers are far more likely to have moved from other cities) women are still likely to move from rural areas to escape discrimination.

The city that wants to use the vitality of its slum dwellers addresses three structural issues:

- it puts in infrastructure, especially sanitation and power
- ◆ it grants land rights, or, at a minimum, states that the slum area won't be cleared and its inhabitants moved on
- ◆ it creates connections to employment especially transport connections.

Some countries have gone beyond this to declare that the 'right to the city' is

a right of citizenship. Brazil pioneered this, including it in its constitution in the late 1980s; other countries, such

"Modern cities are built for cars' mobility, not for children's happiness. But I believe the most successful big city would be totally accessible on a child's tricycle."

Enrique Peñalosa former Mayor of Bogotà

as Ecuador, have followed suit more recently. The Ecuador constitution now says that "people have the right to fully enjoy the city and its public spaces."

And sitting behind all of this is a bigger change, about the nature of the 'new bottom billion'. Pioneering research by

the British academic, Andy Sumner, has revealed that the large majority of the world's poorest — some 75%, by his calculations — now live in middle income countries. And by 2020, by his calculations, three-fifths will live in just five countries: China, India, Indonesia, Nigeria and Pakistan. With this level of concentration, there is an opportunity for distribution businesses to steal a march in bottom of the pyramid markets, serving both more and less affluent consumers from the same production plants. But there are risks as well as it means serving consumers in the same markets through different models – and making sure that both groups of consumers are fairly treated.

Beyond this, the 2020 company will be looking at its flows and trying to reduce them. We expect to see businesses reconfiguring supply chains to make them shorter, and increasing their resilence in areas such as energy and the repurposing of waste.

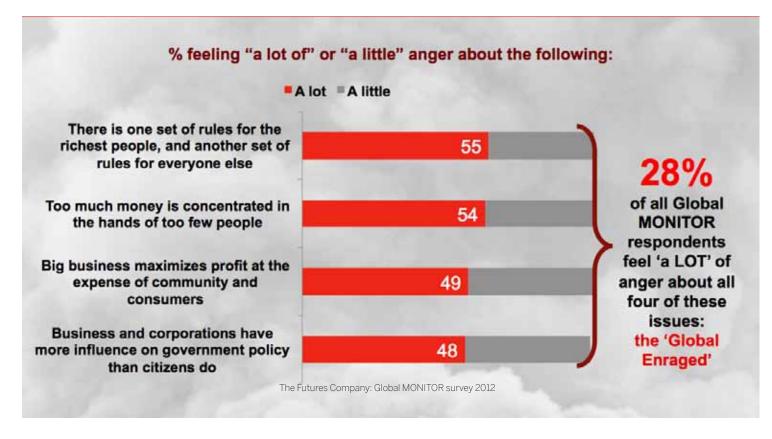


Andrew Curry is a Director in our London office

I became interested in the idea of cities as ecosystems about 15 years ago when I came across Herbert Girardet's pioneering work which measured cities by their huge resource footprints rather than by more conventional measures of people, buildings or income. He made the invisible aspects of urban life visible to me. As resources become more contested, managing these "invisible" resource flows is going to become ever more critical to whether cities succeed or fail.

DataWatch





One of the most striking points in our latest Global MONITOR data, released to clients last month, is the rise of a group that we have called the 'Global Enraged'. People in this group responded to all four questions shown in the chart by saying "A lot". And the striking feature of this group is its size: 28%, or more than a quarter, across the Global MONITOR

markets. (Disclosure: We were not able to ask these questions in China or Saudi Arabia for political reasons).

Across the different countries there is a scale of rage. Italy and Spain are at the top end. In Italy this group represents around half the population, in Spain, more than 40%. At the other end of the scale, the least 'Enraged' countries are

Japan and India, either side of 10%. For the rest of the countries in the Global MONITOR survey, the Enraged group is between a fifth and a third of the population. And looking at the global average, the 'Enraged' are almost identical to the overall population: in terms of age, education, and gender, they are largely indistinguishable.

The level of public anger is shown in other data in the survey as well. For example, in all markets except China and Mexico, the proportion of people who agree that "If the opportunity arises, most businesses will take advantage of the public, if they are not likely to be found out" has risen significantly over the past two years. And this is from a fairly high base. The global average was 63% two years ago; now it is 71%.

Our view is that these levels of cynicism and anger mark the beginning of significant shifts in the landscape in which businesses have to operate. When a quarter of your consumers are "as mad as hell", to quote the famous line from the film *Network*, a hit in an earlier recession, it seems only a matter of time before they also decide that they're "not going to take it anymore."

Expect far more scrutiny of business dealings, far greater expectation of fair value, and outbreaks of anger, such as the UK Uncut campaigns about tax payments, against companies that fall short.

Andrew Curry



A Fitter World

Globally, a third of all adults are insufficiently active, in spite of physical activity's proven role in preventative healthcare, benefiting every aspect of wellbeing and substantially increasing life expectancy.

This worldwide lethargy can be attributed partly to many thinking of physical activity only in the context of weight control and obesity. Inactivity is often overlooked as a key risk factor for such non-communicable diseases. In

fact, inactivity is the cause of about 5.3 million deaths each year, and 32 million years of lost livelihood and productivity. It is a bigger threat than smoking and obesity, accounting for 6% of the burden of global mortality, against only 5% for overweight and obesity. A daily 15-to-30 minute brisk walk has been shown to reduce the risk of cancer, heart disease, stroke and diabetes by 20–30%, and can increase lifespan by three to five years.

But within that global 33%, levels of physical activity vary hugely. The Middle East and the Americas have high levels of inactivity, for example, whereas South East Asia is considerably more active. And there are real contrasts in terms of activity levels between countries: 69% of adults get too little exercise in Saudi Arabia, compared to just 5% of adults in Bangladesh.

Many of these differences can be explained by cultural, lifestyle and environmental factors

1. Culture dictates the fundamental expectations as to who should be active, how and when

Women are less active than men overall,

By Amy Smyth and Radha Patel

but there are also big discrepancies between countries in the number of women who are physically active.

In some cultures, women are discouraged from exercising: in more conservative Islamic societies in the Middle East, for example, women showing skin in public is frowned upon, making public exercise difficult. Women in Saudi Arabia have had to fight for their right to exercise.

But there are positive signs. This year, Saudi Arabia finally agreed to send two women to the Olympic Games.



Ahmed al-Marzooqi, editor-in-chief of Saudi-based sports newspaper shesport.com, explains, London 2012 "showed to all people and religious authorities in Saudi that women in sports do not clash with Islamic tradition and Saudi society."

Meanwhile in Singapore — a multiethnic country encompassing Chinese, Malays and Indians community-based physical activity programmes have been customised for specific ethnic groups, conducted in collaboration with mosques, Malay Muslim organisations and Indian temples.

In the US, low-income Latinas are more likely to experience high rates of inactivity compared with other members of the population due to lack of access to exercise locations and lack of affordable Spanish language programmes. A study discovered that "culturally tailored aerobic exercise intervention" can be instrumental in encouraging this group to participate in vigorous exercise several times a week.

In China, activity levels between the sexes are much more equal, with communist ideology supporting the equal participation of men and women.

Meanwhile, in Australia, women are actually more likely to participate in sport than men, as they have a greater reported commitment to keeping themselves healthy in the longer term. However, Aboriginal Australians face a number of challenges when it comes to exercise, not least that it can seem

Maziah Mahisin (far left), Brunei's sole female athlete at the London 2012 Olympic Games competes in the 400m heats. Photo by Steve Fair under Creative Commons Licence.

anti-social and against the principles of spending time with your family.

With a rapidly ageing population in many markets, the need to offer new, more relevant forms of exercise is becoming more widely recognised:

New York City has created playgrounds specifically for adults, for example.

2. Culture shapes the type of engagement people have with sport and specific physical activities

Some countries have stronger cultures of physical activity than others, or are more engaged with specific sporting forms. Many Middle Eastern countries do not place a high cultural importance on sport or physical activity, and in many African countries, being overweight can be a sign of affluence and status, lessening the incentive to maintain a healthy weight.

Physical activity has always been seen as important in China, where youngsters are encouraged from an early age to participate in sports and exercise regimens: morning exercise drills are a regular part of school life right up to senior secondary school.

One 2008 survey found Chinese consumers were globally the most interested in sport: 87% said they were very/fairly interested in it.

This is set to increase further, as it's increasingly recognised that status and success can be gained from being a sports player. Indeed, some parents in China are now prepared to spend up to 300,000 yuan (US\$43,940) on golf lessons for their children. The Olympic medals board is testament to the current surge of aspiring young Chinese sports players, who act as role models for younger children. In India, meanwhile, there is little emphasis on sport, compared to Western countries. Cricket is huge in India, but this is often at the expense of other sports and activities that don't get a chance to be offered or celebrated. "We don't have a sporting culture in the country. Most parents wouldn't want their children in sports. Sports in India is still a social activity. The country requires a conscious effort to promote sport," says Indian Olympic gold medallist Abhinay Bindra

By comparison in Russia there is a great focus on, and appreciation of, great sporting achievement and the discipline of sport — though this can mean a fixation on high achievers, with less attention paid to less able people and a wider celebration of activity among the population.



3. Cultures have different focus on sports participation versus spectatorship

In some places, physical activity is culturally celebrated via high levels of spectatorship of some sports — while actual participation levels remain low.

In Anglo-Saxon countries, there is more of a universal culture of sports spectatorship: there are fairly high levels of engagement with sport in the UK and US. But actual participation remains low: over 80% of US consumers are very/fairly interested in sport, yet only 40% of these actually engage in sporting activities — one of the lowest rates globally.

The reverse can also be true: in China, physical activity and sports participation are comparatively high, but spectatorship is less of a focus. This is partly polarised by income, with only more affluent people able to regularly go to watch sports. Spectatorship is also much more of a focus for the younger generation, who have grown up with the rapid commercialisation of international sports in China since the 1990s.

4. Different working habits and lifestyles dictate activity levels across countries

Working habits strongly shape our levels of activity. Physical fitness used to be vital for society based around

manual labour, but has diminished in the shift to more sedentary forms of manufacture and the growing 'knowledge economy'. In South East Asia, fewer than 25% of adults sit for at least four hours each day, compared to 64% in Europe.

Urbanisation is becoming growing threat to our activity levels. In Europe alone, more than two-thirds of the population live in towns and cities, which means we no longer have to walk as far. There are also fewer green spaces in which to exercise.

In China, urbanisation alone is said to have reduced daily energy expenditure by 300–400 kcal, and driving to work vs cycling reduces it by another 200 kcal. Nevertheless, the Chinese see weight loss as essential for personal success, with negative attitudes persisting towards obese people. As a result of rising obesity, weight-loss camps have sprung up in many cities, for both adults and children

Some countries promote and encourage exercise through infrastructure, such as Holland with its designated cycle lanes. However, in many markets there remains a lack of facilities and provision for exercise. Healthy cities must discourage car use and encourage activity through good design and legal measures that can ensure health needs are integrated into town planning. Bogotà offers a case of a city where the built environment has been transformed to achieve this

Growing cities will need to use urban spaces more creatively— football under railway arches, exercises on rooftops and so on — to provide opportunities for those living in cities to be active. Locations may also need to be used with dual purpose as space becomes increasingly limited, e.g. office by day, gym by night.

5. Climate can hugely influence levels of activity

The attractiveness of the external environment can hugely affect the desire to exercise outdoors: not all will be drawn to a gym.

In some countries, the climate is well suited to physical activity. In Australia, for example, activity levels are relatively high due to the cultural values of being active, 'outdoorsy' and independent. In countries where air pollution is high, meanwhile, exercise can be unattractive and even viewed as a health risk, contributing to breathing problems and fatigue. In Asian countries where light skin tones are often the beauty ideal, some women purposely avoid exercising outdoors.

We are seeing attempts to overcome the challenge of climate, with some health clubs starting to focus on bringing the outside indoors, some urban gyms are creating a sensation of exercising outdoors by increasing natural light and connecting the gym to outdoor spaces through architectural features to maximise natural views.



Final word

There are many contextual and cultural challenges to the world becoming more active. However, with the awareness of the social and economic costs of inactivity rising rapidly, there are new opportunities for innovation. The challenge is at both ends of the age spectrum. The quickest way to improve levels of physical activity across populations is to re-engage with the over-35s and this age has quickest returns for public health. But physical activity and sports participation are also sustained by habit and there is a risk that in a world of digital games and heavy car use, children never acquire the habit.

Beyond that, it seems certain that cities will continue to be redesigned to promote healthy outcomes. These often improve sustainability and businesses can increasingly expect to see their sustainability policies from a public health perspective.

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http://www.health-club.co.uk/digital/index1.cfm?mag=Health%20Club%20Management&codeid=27638&CFID=38580748&CFTOKEN=20397782



Radha Patel is an associate director in our London office

I'm a lifelong fan of the Olympic Games and have been totally gripped by London 2012 fever. While I'm in absolute awe of our elite athletes, like many others I've remained a frustrated spectator — never quite finding the time or energy to really get out there myself. Historically, the Olympics and popular elite sports have never really significantly uplifted levels of participation around the world. So I was really pleased to see that LOCOG set out to address this issue head-on and create a platform for a lasting legacy that 'inspires a generation' to participate and be more active. Only time will tell how successful this will be but some of the most compelling moments from this summer's sports for me were not the achievements of the elites but increased inclusivity—Saudi women participating for the first time, Paralympians participating in the Olympics —that bridged gender inequalities and the cultural gap.



Amy Smyth is a senior consultant in our London office

I've always been curious as to why some countries are naturally associated with being more active and why the UK has lower levels of physical activity than others. We tend to find ourselves having a stereotypical view on the fitness of people in certain countries, for example, the outdoorsy Australian or the Dutch cycle fanatic. Exploring why this might be reveals that there is some truth in these stereotype associations. and understanding how they came about can help us unlock the different factors accounting for varying levels of activity. It's fascinating to see the impact different cultures have on activity levels and how environmental and societal factors influence them. More exciting is thinking about how we can take this learning and apply it to less active countries like the UK to find ways of improving activity levels.

The World Future Trends Summit: Q&A with Pepsico



The World Future Trends Summit in Miami earlier this month saw global visionaries gather to uncover and implement the trends that stand to have the greatest impact on the future of business. The Futures Company is proud to be a Summit media partner: covering, translating and synthesizing the Summit's highlights in real time, to produce the official executive summary of the event.

Before the summit we talked to Manoj Fenelon, Director of Foresight for Pepsico, who led one of the most interesting sessions: Creating the Future of Brands with the Power of Science Fiction Storytelling.

How does PepsiCo define foresight, and what are some of the key ways that your insights are used within the organization?

I help the global beverage group at PepsiCo imagine alternate futures for its brands and businesses.

For PepsiCo, foresight is a rigorous and systematic approach to imagining scenarios that will play out over the course of this decade. This is a step

up from what trends departments are typically tasked with. If discerning and reacting to trends is a bit like throwing a few seeds out the window onto the lawn on a rainy day, then foresight is like getting trained to be a horticulturist. As the world's second-largest food and beverage company, we ought to be taking a more active role in creating the futures to come, responding to some of the big challenges therein and trying to turn them into sustainable business opportunities.

The foresight practice is fairly nascent within PepsiCo. I collaborate with people across the PepsiCo business who are looking at the future to ensure that we are all communicating a common context for planning to senior management and working consultatively within major innovation teams. I help future-proof their thinking to make sure the main thrusts of their efforts are "on code" and lead special projects that help build capabilities while answering important growth questions, like "in which 'next' categories of consumer demand can new beverage offerings play a role?"

Why did you want to lead the session Creating the Future of Brands with the Power of Science Fiction Storytelling?

I've nurtured a seething hatred of PowerPoint for a long time, and completely second Edward Tufte's thesis (http://www.edwardtufte.com/bboard/q-and-a-fetch-msg?msg_id=0003mW&topic_id=1) that it distorts and dummifies business (and other) thinking. Communicating today's insights in PPT is hard enough — just imagine all those slides droning on and on about authenticity to people who mostly haven't been within breathing distance of consumers in quite some time — so try getting people excited about the future in PPT!

Looking for a mode of communication that can help executive audiences feel like they can 'touch and smell' the future, I've found science fiction fits the bill quite nicely. This session is a natural follow-up for those who are already convinced by the power of storytelling to help communicate your vision of the future. For others, this is an invitation to take storytelling seriously as a business skill — not just for its aesthetic and communicative effects, but also for the structural effect it can have on



Manoj Fenelon is director of foresight for the Global Beverage Group at PepsiCo. He grew up in southern India and has degrees in Management Studies and Communication Science.

He has taught persuasion to undergraduates, written advertising copy, worked in a mom & pop video store, and has been in consumer research since 2000, the last seven years with the Strategy & Insights department at PepsiCo.

your thinking. For example, it can turn a seemingly mundane assumption, e.g. beverages come in bottles/cans, on its head and imagine, say, a day in a family's life, without bottles or cans. That imagination can be very specific and very real.

Science fiction tends to be thought of as mind-bogglingly distant from current realities, but I've always been struck by

"Foresight is like getting trained to be a horticulturist."

how keenly (good) sci-fi writers observe humans and human relationships and attitudes. As my friend and co-presenter Ari says, "Engineers will imagine the vehicles of tomorrow, but someone's got to imagine how people will drive these things, and the traffic accidents of the future."

What are some futures that SF has got right?

Well, Minority Report and today's surveillance society (Total Information Awareness, anyone?) is the obvious example, although it is hard to speak of that as something having gone "right"!

Then there's Aldous Huxley's *Brave New World*, of course, call it sci-fi or not. And I'm always tickled when I re-read Marshall McLuhan going on about "someday, ads will give people all the things that things used to ... advertising will become the product and the product itself will merely be a number in a file, locked away somewhere in a vault."

Are you a science fiction fan?

I want to say "yes," but I'm afraid I'll get an earful from some of my friends who are more avid devotees of the genre, so how's "sort of"? Terry Gilliam's films Brazil and The Imaginarium of Dr. Parnassus are enduring favorites. Tarkovsky's Solaris is the most haunting narrative I've ever seen. The Handmaid's Tale and Dune (which could very easily be an ethnography of the Saharan tribes) also left an impression.

Can you share with us your top views of the future?

I'm reprising quite a few serious economists here: If you thought 2008 was a crash, you ain't seen nothing yet. Cheery, no?!

But seriously, the "market" that is held in such veneration has done a horrendous job of holding the nominal exchange value of all sorts of things close to their real-use

value. So the last few decades have been a procession of bubbles, some bursting even as others build. And there are guite a few bubbles still floating around, waiting for their days of reckoning. But I don't think the world is coming to an end. As the environmentalists with a sense of humor are fond of pointing out: the earth is a pretty resilient thing, it is humans who aren't. I think some major dualities that now define our thinking (human vs machine, for example, or natural vs artificial) will fade away, with nanosurgery and human microbiome enhancement (good) sci-fi writers that's what you're doing when you eat yogurt with live bacteria, by the way (good) sci-fi writers and all the new possibilities therein. Science vs religion is another one. I draw profound hope from the fact that leading quantum physicists can sit down with Buddhist monks and make sense of each other's systems of thought and practice.

What's next?

Sharing over ownership. Advocacy over advertising. Better choices, not just more.





The Pharma Challenge

by Vera Kiss

As emerging markets become a more important part of the portfolio,
Big Pharma faces new challenges to its profitability.

The squeeze on Big Pharma's profit margins has been well-documented, calling into question the efficacy of its existing business models. Shareholder pressure has oriented the industry towards mass-marketed blockbuster drugs with a focus on health management. Global patent legislation has also enabled Big Pharma to limit competition from cheaper generics producers. However, expiring patents and relicensing practices are coming under increased regulatory pressure. There are new forms of competition from life sciences and biotech companies that excel in innovation.

Further, public health providers in developed markets are increasingly challenging spiralling healthcare costs and scrutinizing more controversial patent settlements and patent claims on minor changes to existing drugs. The European Commission's unannounced inspections on company premises are intended to clamp down on possible anti-competitive practices that may violate EU anti-trust legislation. These actions are in response to suspected industry collusion to block or delay the market entry of cheaper generic drugs and the payment of patent settlement fees to generic drug makers.

Similarly, in the USA in July 2012, a federal judge rejected AstraZeneca Pharmaceuticals' lawsuit against the Food and Drug Administration's approval of the generic versions of its antipsychotic drug Seroquel. Under new healthcare legislation in the United States, largely driven by the need to contain costs, and with added incentives for government and private insurers to control prices, a stricter legislative environment is likely to become the norm.

The extent to which Big Pharma will be able to take advantage of the parallel rise of incomes and chronic diseases in key emerging markets is also uncertain, given the less generous patent protection these markets award to foreign pharmaceutical producers. Largely to protect its own burgeoning generics industry, India started to examine patent applications only in 2005, ten years after it signed the WTO TRIPS Agreement (Trade-Related Aspects of Intellectual Property Rights). In addition, Indian legislation awards patentability only if producers can grant "enhanced efficacy" to prevent the "evergreening" practices that the industry commonly uses in developed markets to prolong patent protection via minor amendments to existing chemical compounds.

Brazil has also used its patent legislation creatively to promote local interests. For example, the cheap availability of anti-retroviral treatment under Brazil's model AIDS policy has been partly achieved via patent legislation. This allows the issuing of compulsory licences for local generic producers if a patented product is not manufactured in Brazilian territory within three years of the issue of the patent. In Latin America's largest economy, and one of the fastest growing pharmaceutical markets, there is also rising incidence of lawsuits by citizens against the government in order to enable access

to drugs not included in governmental pharmaceutical distribution lists. Brazil's strong tradition of societal mobilisation for health (as shown by the role of civil society in Brazil's successful anti-AIDS policy) further incentivises policymakers to force cheaper deals on pharmaceuticals and possibly consumer healthcare items.

The industry's response?

The large pharma companies have asserted their rights to prolonged patent protection. The most recent controversy is around Novartis's lawsuit for the patenting of its leukaemia drug, Glivec, in India. At the time of writing, India's highest court is discussing the case that could challenge its existing intellectual property legislation. Currently it does not protect patents of new formulations on existing compounds, and enables local generics manufacturers to produce cheaper versions of branded drugs legally. If Novartis wins the long-running case. it may succeed in limiting generics production in India. European pharma lobbyists are also credited with the possible inclusion of pharmaceuticalspecific intellectual property legislation in ongoing negotiations on the EU-India Free Trade Agreement (FTA). These measures would lift general patent life from 20 to 25 years in the Indian market, and their data exclusivity provisions would oblige Indian generics producers to replicate the innovator

company's testing, with the potential to delay or even withhold local registration and production of drugs. Moreover, the proposed pharma clauses of the FTA would enable the seizure of generics that are suspected of violating the provision, blocking Indian trade in life-saving medications with Africa and Latin America in particular.



It is uncertain whether India will go ahead with the pharma clauses of the FTA as this would hurt local generics production and access to cheaper drugs domestically. Signalling efforts to protect its generics industry from increased international regulation, India's Ministry of Health has approved

the use of barcodes on packaging that enable the tracking of a drug's source. This serves to counter claims that India's laxly regulated generics industry is enabling counterfeit drugs to invade global markets.

Importantly, Big Pharma's pressure on patenting in India provokes growing criticism from the World Health Organisation and global NGOs. For example, Médecins Sans Frontières primarily supplies its global projects with drugs produced in India at a fraction of branded prices and therefore has been a vocal critic of Big Pharma's pressure on India's generics industry. As a result, the industry is also facing difficult reputation-related issues and rising tensions with regulators in emerging markets with strong growth potential.

Stepping into the future

The challenges to the pharma sector — and therefore the opportunities — fall into three main groups: changing customer relationships, new types of innovation, and a new landscape of disease.

Customer relationships

The growing personalisation of healthcare and proliferation of health monitoring and self-diagnosing devices are opening up new models of preventative care and personal health

management. Again, this challenges the pharma companies' business model, where it's oriented around managing illness not overall health. At the same time, most pharma companies already have divisions active in the well-being and disease management spaces. They also have huge relationships with the existing healthcare providers, who are — in many countries — increasingly promoting preventative approaches to health management rather than managing sickness.

At the same time, there is substantial potential to engage with consumers and providers in untapped and bottom of the pyramid markets, both in helping them manage current healthcare, and work with governments in emerging markets as they improve the level of social protection around health (as in China, which has committed to providing universal primary healthcare). There are risks here, of course: it is a small step from wider healthcare provision to lawsuits over rights to health, as have been seen in Brazil, and it is easy to end up on the wrong side of such disputes.

Equally, as public health budgets in richer countries come under increasing pressure, there is the potential for new approaches involving directing web-informed consumers to accessible overthe-counter medicines where these are appropriate, in partnership with pharmacies. Indeed, we expect to see an increasing trend whereby medicines

tend to migrate from prescription to over-the-counter, increasing customer choice and removing health management organisations from the decision process.

India and Brazil both use patents legislation to protect consumers and promote investment.

Innovation

You don't have to look hard to see that the sector's innovation model is broken. It takes too long, and even when a product makes it through, the likely market is no longer large enough to sustain the investment.

We expect that innovation processes will become more collaborative, probably involving more cross-industry knowledge synthesis. This could include more cataloguing of existing and naturally occurring chemical compounds. But this is a big step in terms of the industry's innovation models, and it may need to learn from other sectors.

Companies are likely to follow the example of licensing existing patents into patent pools, which manages reputational risks from ongoing

patent-protection controversies. Gilead Sciences' patent pool initiative, for example, now allows generics producers to copy four of its anti-retroviral drugs for sale in low income countries for a small royalty fee.

New landscapes of disease

Finally, as the world population ages, there are emerging groups of patients with more extensive healthcare needs, who have perhaps been overlooked. An older world has implications for both the healthcare and wellbeing of a larger ageing population.

At the same time, increasing affluence in emerging markets brings its own health challenges; the World Health Organisation has already described the growth in childhood obesity as "an epidemic".

And there is a third macro-trend at play here as well: climate change is shifting the boundaries of tropical diseases, which are moving to new locations on the planet. For example, West Nile virus encephalitis has appeared in Texas, Serbia and Italy this year. In this area, as with the two above, the pharma sector has the scale and the relationships to be a partner in helping society and governments deal with these new challenges.



Vera Kiss is an analyst in our London office

I developed a strong interest in medical anthropology during my time at Princeton. I'm fascinated by how people think about their health and bodies and how that shapes their relationship to healthcare and medication use. This is not just a matter of cultural diversity in how we view our biological selves. Healthcare and use of medication are embedded in the regulatory practices of government and the business strategies of healthcare providers, including Big Pharma.

Pharmaceutical companies play a crucial role in providing access to services and products that make our lives better.

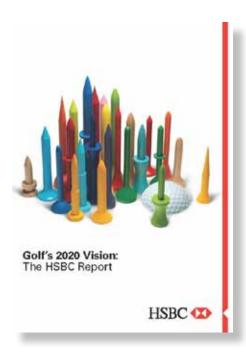
Overcoming the challenges the sector faces will necessitate new innovation processes but also a deeper understanding of consumer needs. Linking consumer responses to evolving technologies, public policy and even climate change are key areas I want to help our clients explore.

NEWS



AWARDS





The HSBC Report on the future of golf was published in July 2012 on the eve of the Open, of which HSBC is a patron. The Futures Company was commissioned by our sister company H+K Strategies to write a substantial report for their client, looking at the big trends that will shape the game over the next decade. The main observation is that golf is being shaped by the same factors shaping the rest of the planet. With a rapid scan of those factors, you get quite quickly to

- the rise of the Asian economies
- urbanisation
- the emergence of women into the workplace and public life
- the proliferation of digital ICT
- the rise of sustainability

All of these issues are playing out in golf, whether it's the surge in the game in China (and even India), bringing thousands of kids into the game; women taking up the sport a source of growth in places where men are playing less; a greater focus on shorter forms (six or nine holes rather than 18); smarter tech on courses or in golf simulators, or belatedly — attention being paid to making golf courses more sustainable. The report generated a considerable amount of media coverage and was very well received by HSBC, which sponsors several tournaments and junior golf programmes, and by the wider golfing industry. The report can be downloaded from The Futures Company website.

http://thefuturescompany.com/free-thinking/the-future-of-golf/



The Futures Company is delighted to be a finalist for the **Virginia Valentine award for**

Cultural Insights. This is one of the Market Research Society awards to be announced on 10 December 2012.

This interactive consumer and shopper trends programme shortlisted by MRS has already won the **Kantar Measure of Inspiration Grand Prix** and most inspirational piece of client work. Its winning streak continued with a **WPPed Cream**



award for creative excellence. The Futures Company won another WPPed Cream award

for the Country Dashboards, which comprise part our Global MONITOR insights service. Global MONITOR's MacroDynamics interactive tool kit was also highly commended this year in the WPPed Cream consumer insight category.

ATTICUS

The Futures Company has also won three

Atticus Awards, which honour original thinking in communications services within WPP.



Branding & Identity - Merit *The Future of Global Brands* by
J Walker Smith with Andrew Curry
and Stokes Jones

http://thefuturescompany.com/free-thinking/the-future-of-global-brands/

Strategy - Merit: *Technology 2020* by Andrew Curry and Andy Stubbings http://thefuturescompany.com/free-thinking/technology-2020/

Strategy - Highly Commended: *The Kinship Economy* by J Walker Smith http://www.tfccontent.com/Freethinking/Kinship_Economy_FP8_July12.pdf (edit)

We are especially pleased that both our creativity and original thinking are so highly regarded and recognised among the 200+ agencies that comprise the WPP family.



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