

The time lords

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Andy Hines is stuck in traffic. Predictable enough for Houston at rush hour, but frustrating none the less. The 44-year-old gesticulates with a wiry, tattooed arm at the lines of red tail-lights forecasting a slow drive ahead, but focuses most of his ire on something less immediately tangible: the future. Or rather, the role of futurology - his chosen profession - in the corporate world.

"I should have just gotten an MBA," Hines says, explaining that futurists are seldom given credit for their ideas within the big organisations where they work. "Even if you are the first one to see something, by the time it gets acted on, 15 other guys have intervened." And it's not just the mainstream that belittles the profession, he says. The big names in the field write a bestselling book and then quickly dissociate themselves from "the rest of us knuckleheads". "It's a new field," he adds with a smile. "I wouldn't do anything else. But it attracts some cranks."

We would all love to be able to see the future. Will she marry me? What will happen to house prices? How will I die? The urge goes back to the oracle in the temple at Delphi, to Nostradamus staring into the flames and uttering his gnomic predictions, and to the Victorians attempting contact with the afterlife through a seance or a ouija board. But where the Romans consulted the entrails of slaughtered bulls, futurists - as distinct from strategic planners - depend on a different set of interconnected systems: fringe newspapers, websites and newsletters; human experts; and the world around us, which contains "memories of the future", in futurist parlance.

Meanwhile, ahead of Hines's silver Ford Mustang GT convertible, a painful memory of the past rears up against the sunset: the deserted skyscraper of Enron, the failed energy trading company that called Houston home before its shock bankruptcy. Such sudden collapses aren't new to Hines, who moved to Texas for a master's degree in "futures studies" in 1987, just as oil prices were plummeting in a downward turn of the oil cycle. The area's oil workers, he recalls, who had thought the boom would continue forever, "were just walking out of their houses and leaving their mortgages". In 1990, he started his first job at a small futures consultancy in Washington, DC, with the slogan "the future is our business". While futurists strain to distinguish themselves from new-age palm readers, astrologers and tea-leaf gazers, they emphasise too that they are not simply management consultants, political pollsters or market researchers, who also peddle predictions. These more traditional analysts are usually concerned only with their own sector or political context; futurists turn unashamedly to what lies, broadly, ahead. And futurists really believe they can see what's coming next more clearly than you or I - or can at least prepare for it better.

Some powerful people seem to agree. Big companies such as Nokia, Procter & Gamble and the electronics group Philips use futures thinking. The British government has set up a "horizon scanning" centre as part of its Foresight project. And academia has responded with a scattering of universities around the world offering master's degree courses such as the one Hines attended, in futures studies. With a "clash of civilisations", possible pandemics of bird flu and global warming all on the horizon, serious futurists may soon be getting more attention from the rest of us.

Still, Hines continues his litany of complaints. New arrivals to futurology, he says, think it's a brand-new discipline when in fact it has been around for years. It emerged after the second world war, mainly in the US, when military strategists began to worry about life after nuclear conflagration and how to plan for it. Concern in the 1960s over looming environmental catastrophe pushed the discipline along. And since then, the number of practitioners has swollen alongside the number of clients.

In Hines's first job, he focused on topics such as "the future of the workforce". He loved the intellectual nature of the work and was "blown away" that "important, highly titled executives loved our stuff". His family and friends were somewhat puzzled about what exactly he did, but when they saw "I had a house, someone must be paying me, they let me get on with it."

At the start his salary was low. While top futurist consultancies such as Global Business Network, a firm based in San Francisco, rival the traditional consultancies in earning power, many smaller ones struggle to survive. And while big name futurists can charge \$10,000 for making a speech to a hall full of company executives, their more ordinary colleagues charge daily rates of between \$1,000 to \$2,000 for services such as in-house workshops or preparing a report. Hines says his salary is now in "the low six figures" - considerably less than the market rate for traditional strategy consultants at firms such as McKinsey, where partners of similar experience would be likely to earn \$600,000 or far more.

In return, futurists like Hines get greater informality. "Those that know me well," Hines says, "would

have trouble seeing me in a pinstripe suit poring over spreadsheets." (He is dressed in grey jeans and open-necked shirt.) Futurists also like to think that they get the freedom to think more widely. "I think the key distinctions in what futurists provide vis-a-vis more traditional consultancies is a longer time-frame, consideration of a greater range of alternatives, and a greater willingness to think out of the box."

When you ask other futurists what is wrong with the way traditional forecasters think about the future, they say that most planners conceive of the world as a simple, predictable Newtonian machine. They build a single-variable model, assign a few coefficients based on the past and coloured unconsciously by what they hope will happen next, and extrapolate a straight line to the future. There is one right, fixed answer and their task is to find it.

The trouble with this view, futurists argue, is that life does not happen in straight lines. Instead, there are feedback loops, jumps, breaks, tangents and great big asteroids that blindside you. The future is a moving target, being formed continuously, Back to the Future-style, by everything going on right now. It is so complex that it can't possibly be foreseen by a single expert who concentrates only on his or her field.

History is littered with the hubris of organisations that refused to think broadly. In the late 1970s, IBM stumbled by letting others take the lead in microcomputing - it hid behind the comforting prognosis of rising demand for computing power, little realising that the real battle would not be over the market for mainframes, which it dominated, but in getting personal computers into people's homes. In the 1980s, the CIA (and many others) failed to see the true weakness of the Soviet economy and the coming collapse of the USSR. In the 1990s, Microsoft belittled a new invention called the internet, while nimbler rivals - Netscape, AOL - got ahead. And three years ago, American neoconservatives were convinced that mightier US military technology would lead to a swift and painless creation of a democratic Iraq.

Trained futurists have three key strategies: careful examination, "scenario-building" and "visioning". The first involves gazing more closely than most of us do at what is really going on around us. The principle is that the future is already more or less here, if only we could see it. "Eventually you start to spot what is important," says Alister Wilson, an Edinburgh-based futurist who works with the UK government's Foresight programme. "You can see things coming before the competition."

Shell was one of the first companies to adopt futures thinking, incorporating it into planning in the 1970s. Frenchman Pierre Wack, one of the fathers of futurism and a man who called his work "the gentle art of re-perceiving", got Shell to see that oil production was not just about economics and technology but also about politics. Thus it was ready for the severe oil crisis of 1973, when Opec countries cut off oil exports during the Yom Kippur war.

Today, Cho Khong, Shell's chief political analyst, explains how "re-perceiving" helps futurism's broad approach. "You begin by going around asking all sorts of people, 'What are the questions that we should be asking?' Then you bring in experts to debate and discuss them further." The rigour of storytelling makes you fill in the gaps and realise what you don't know.

Another name for this storytelling is "scenario building", developed in the 1950s by Herman Kahn, a highly influential cold-war analyst at the RAND Corporation. Scenario building begins with the careful observation on which futurists so pride themselves. If you stare at a thing long enough, you eventually see the fundamental forces driving it, which you can count on being present in the future - whatever that future turns out to be. These fundamental forces are like scaffolding, on which you build two or three contrasting stories (the scenarios) about what the future might hold.

For example, an ageing UK population is a given. But how does this interact with, say, oil prices and the future of tourism? One scenario might be low oil prices and a booming British retiree market for second homes in France, served by the likes of Ryanair. In a second, high-oil-price scenario, on the other hand, you wouldn't buy Ryanair shares or aim to become a landlord in the Languedoc.

Futurists and their clients identify warning signals in each scenario and then watch the world closely for these signals - hints that one of the foreseen futures is actually unfolding. A 2003 article by Leonard Fuld in the Harvard Business Review explains how, in the late 1990s, Visa, fearing a threat from online payment systems, built four scenarios, including one in which a venture capital-backed start-up began a new web payment system and defeated Visa, and one where online rivals fizzled out and failed. It began to track signals that might suggest scenario number one was beginning, such as the number of online businesses that signed up to the new web systems, the level of advertising by start-up rivals and the capital being raised by them. By 2001, all those measures were declining. As a result of its scenario planning, according to Fuld, Visa had not rushed in to invest in its own online system and had saved itself millions.

In another success story, the ED&F Man Group used scenarios in 1999 to help its managers re-examine their business. According to Gill Ringland, now chief executive of SAMI Consulting in London, the company had grown from its simpler roots in sugar plantations and trading to a more

complicated structure of four divisions - including stockbroking, sugar (plantations, refining and trading) and derivatives. Ringland used four scenarios of the future that she had developed for the City of London, and discovered that the senior managers of each of ED&F Man's divisions believed they were working in a different scenario. "It brought out the assumptions and reasons for management tensions," Ringland says. By mid 2000, "the company had sold off its sugar business. In a year, it had realigned its activities and become a star of the FTSE, focused on derivatives."

Finally, further back, in 1983, when the Soviet Union still looked invincible and the iron curtain unbreachable, business-related futures planning prepared Shell for a big geopolitical shift that not many traditional forecasters predicted. The company had been considering a major investment in Norway's Troll gas fields, and knew the platform's profitability depended on whether oil and gas prices remained high. This depended on whether the Soviet Union ever began exporting more of its gas. Shell's planners developed scenarios in which the Soviet Union opened up to the west and world prices fell. They didn't know if this would come true, but when they saw that a young reformer called Mikhail Gorbachev was coming to power, and realised that this future of massive political and economic restructuring was quite possibly now unfolding, they prepared by cutting the costs of the Troll project, reining in expansion of other fields, and setting up an oil-trading system so that the company could buy and sell oil in the newly volatile oil market.

Persuasive scenario-building often involves developing fictional personas, for example Hines's "post-modern Pete", whom he created when he worked in the 1990s for Kellogg's, the Michigan-based cereal maker. In a meeting with a brand team, he put on a Californian accent and "tried to show how the character eschewed formality and made himself right at home in the corporate setting. Products were not just commodities, but had a certain meaning, and he cared about whom he bought from and whether they shared his values."

The final futurist strategy, visioning, involves not only working out what could happen but what you want to happen. This emerged out of a separate strain of futures thinking in western Europe after the second world war. Nations that prospered were those, like the US, that had a clear vision of where they were heading.

Participation is an important part of visioning - whole companies or entire communities come together to consider the best future. The hard job of getting them all to agree often then ensures that that future gets carried out. In 1989, the economically depressed city of Bilbao in Spain launched a visioning exercise that brought together more than 300 people from businesses, local authorities and organisations such as universities and museums. They identified "cultural centrality" as one of the significant themes for Bilbao's future. As a result, the city built an underground railway, and a huge new conference centre and concert hall. Another consequence of the multi-party exercise was the opening, in 1997, of the incredibly successful Guggenheim Museum. "At that time, the exercise was quite unique," says Elzbieta Krawczyk, assistant secretary-general of the World Futures Studies Federation and a researcher at the Futures Academy in the Dublin Institute of Technology. "They used this process to structure their thinking. It helped people leave political links and organisational thinking behind."

But futurism success stories sometimes leave you wondering what really significant event the discipline has anticipated, and whether mere civilians with a combination of creativity and common sense could have done the same or better. Edie Weiner, of the New York company Weiner, Edrich, Brown, Inc, a futures consultancy founded in 1977, claims her clients first heard the words "internet" and "Taliban" from her. If true, it's impressive - but it is hard to judge: companies do not always like to talk publicly about whether they use futures thinking or act concretely on its recommendations. Among other reasons, they say it might tip off the competition. It also smacks of picking winners with the benefit of hindsight - at any one time, futurists tend to point to a range of potential trends, and not all will amount to anything. Still, Stephen Collesano, vice-president of research and development at AIG, the big insurance company and one of Weiner's clients, says that several years ago Weiner first alerted AIG to Islamic finance. Last year, the group started a regional company based in Bahrain offering sharia-compliant insurance. "We certainly identified it early on via the scanning process," Collesano says, although there was other internal work, too.

These strategies - thinking of the future in idealistic terms, storytelling, and quiet but intense observation - set futurists apart from, and sometimes ahead of, their mainstream peers. But those same tactics might also be the reason futurists struggle for respect: theirs is a creative view of the world - almost a novelist's view - which can keep them on the periphery in the square-shouldered realms of business and politics.

Many futurists talk about their profession with a passion and commitment bordering on the mystical. Many are oddballs, jacks-of-all-trades who admit they don't fit in anywhere else. Hines is not quite like this. He is self-deprecating and sardonic. He insists his is an ordinary nine-to-five job. He calls himself a "lunch-pail futurist". Still, as we ride the looping freeways of Houston, his enthusiasm for the work is clear.

The world, he says, is entering an "Age of Abundance". (Futurists tend to speak in capital letters.) "We think of scarcity, that the pie is only so big, but if we really think about it we have enough of everything,

at least in the affluent west - overflowing supermarkets, lists of cheap flights. This is leading to the Gift Economy." Just look at open-source software, for example, or all those people who contribute to Wikipedia for free. As Hines's Mustang speeds past the former stadium of the Houston Rockets basketball team, he points out that it has been transformed into a mega-church that attracts 17,000 worshippers most weekends. The scale "creeps me out", he says. "Yet it is part of a larger lifestyle trend in which people are looking for deeper meaning in life, which is quite positive."

When we eventually arrive at the office blocks of downtown Houston, Hines mentions another new trend: companies, governments and universities requiring their employees to work from home. A few years ago, he advised a national construction company to build home offices in new houses in the same way it would install a kitchen. "Expect lots of 'for rent' signs soon," he says, pointing through the windscreen at the glassy towers.

In the shadow of testaments to Ozymandian folly like the abandoned Enron headquarters, Hines's predictions can sometimes feel arbitrary. In fact, futures thinking fell out of favour in the 1980s and 1990s, partly because of recession and corporate downsizing. "Futurists can be the first to go," he says. "You are there to provoke. You start to wear out your welcome." Another factor was a Thatcherite suspicion of anything that didn't leave planning to the free market.

"There was also the idea that we had reached the end of history and there would be no more historical shocks," says Graham May, who taught a master's degree in futures studies at Leeds Metropolitan University - a course that is no longer offered.

Indeed, all descendants of the Delphic oracle have their critics. Philip Tetlock, a psychologist at the University of California at Berkeley, conducted a two-decade experiment tracking the individual opinions of 284 forecasting experts. Most of them were hard-pressed to out-perform either a random-guessing strategy or simple extrapolation algorithms (predicting more of the same). And he found that the more famous the experts were, and the more widely quoted, the worse their forecasting records were likely to be.

Still, Tetlock was testing traditional forecasters, not futurists. One of the field's most famous examples explains why companies or governments might hire a futurist in spite of natural doubts: three scenario exercises held in apartheid South Africa during the 1980s and 1990s. In an exercise in the mid 1980s, AngloAmerican, one of the country's biggest companies, built two scenarios - called "High Road" and "Low Road" - in which South Africa either embraced inclusive politics and joined the world economy, or stagnated on the margins. It spelled out the business community's fears about the costs of international sanctions and isolation. The company presented the analysis to more than 25,000 people around the country and even briefed F.W. de Klerk and, later, Nelson Mandela in his prison cell. In another exercise beginning in 1991, the University of the Western Cape brought together 22 people from the ANC, trade unions, business and academia, at the Mont Fleur conference centre near Stellenbosch. The team developed four scenarios, including "Icarus", in which sudden massive social spending by a new black government led rapidly to economic collapse; and "Flight of the Flamingos", which combined inclusive democracy with prudent economic management, and in which both sides eventually prospered and "flew high" together.

There are many, many reasons why apartheid died, but at a time when most people only saw disaster ahead, the scenarios held out a vision of peaceful resolution. According to Graham Galer, honorary research fellow in the department of politics and international relations at the University of Kent, who has looked at the scenarios' impact, they may have made a "modest contribution to the building of consensus... on the need for change".

When organisations get into trouble is when they create a vision that is not aware of the changes that are happening around them," says Hines as he reaches home - a bungalow, with a porch and a pool, that he shares with his girlfriend Rebecca and cat Scully. (True to the forecast he made in downtown Houston, he works from the bungalow.) Formal futurists try to avoid this trap by scanning all sorts of sources. "We don't read the newspaper for new ideas because by the time the newspaper covers it, typically we have thought about it." On his coffee table lies a spirituality magazine, with articles such as "Is the Universe Alive?" and "God's Next Move".

As he sits in front of his computer eating Pop-Tarts, his face is spotlighted again and again by the constant appearance of on-screen boxes signaling new e-mails, Skype calls and Google alerts. One alert highlights the independent environmental scientist James Lovelock's predictions that global warming had now gone so far that the earth was probably doomed. It brings a knowing nod from Hines. An online newsletter from futures consultancy the Arlington Institute informs him that the FDA is set to approve milk from cloned animals. "I expect to see some protests against that," says Hines, clicking on the report to file it. "New Scientist: Invisibility Cloak Breakthrough", he reads aloud. "We have seen a lot about this. That has big military implications, all nefarious." "Pig to human transplants on the horizon - MIT." But this has been on the horizon for years."

Nor were the invisibility cloak or the cloned milk reports exactly insider information. But futurists say scanning takes perseverance and a certain skill - "an innocent eye", according to John Naisbitt, one of

the gurus of futures thinkers, who says he reads newspapers for six hours each day and travels endlessly. Tim Mack, the president of the World Future Society, calls it a "gimlet eye". Peter Schwarz, who was a key member of Shell's planning team, says in his book *The Art of the Long View* that a good futurist is "like a hunter". "Alerted to the presence of prey by the snap of a broken twig, you learn to pick out a key piece of vital information."

Edie Weiner of Weiner, Edrich, Brown says: "We have only one client, and that client is the external environment. If we listen and continue to pay attention to that client, others will come and pay us money for telling them what it is saying and what it means for them."

Futurism is frowned upon by other professions and by other academic fields. According to the Oxford-based consultant in futures research Wendy Schultz, most suspicions stem from the fact that futurists are interdisciplinary, encroaching on others' territory. But there have also been internal factions and rivalries in the profession. And it remains hard for futurists to get the message out because they are often so far down the pecking order in the big corporations. "If you are someone who thrives on recognition [and want to be a futurist], then you are going to be in trouble," says Hines.

Finally, futurists struggle against the obvious fact that they are not always right about the future. According to a 2005 article in the *California Management Review*, Shell, after doing so well in the 1970s and 1980s, went on to underestimate China's rise, the new, global terrorism and the backlash against globalisation. And despite Hines's adventures with post-modern Pete, Kellogg's premium organic cereal brand Country Inn never found much of an audience.

Looking back on the first 30 years of the World Future Society, Ed Cornish, its quiet, erudite founder, found that of the 34 predictions it made in 1967, 23 came true but 11 did not - a moon landing but not a moon base, human organ transplants but not "most urbanites living in high-rise buildings by 1986" or "lab-created life by 1989".

Sitting at his computer and looking back at technology forecasts for 2025 he made in 1995, Andy Hines gives himself what he describes as a good scorecard: "'Planetary-scale engineering works, such as the Channel tunnel, iceberg shipping, or the greening of Africa.' Possible. There is a school of thought that is going in this direction, yes. 'Everything will be smart.' Yes, that's on track. 'Moon mining.' No. 'Mastodons will walk the earth again.' We were talking about Jurassic Park before Jurassic Park. 'Vegetarianism to the fore.' I am surprised. I thought we would have seen more of that."

After years of decline, futurism has begun to recover. Since the late 1990s companies and governments have faced massive shifts such as the internet and new geopolitical conflicts and have begun looking again to futurists for help. In a futures class in the University of Houston, I sat with three fresh-faced graduate students discussing the future of biotechnology. They had been attracted, they said, by the big ideas and breadth of subjects, and hoped that they could make a career from it.

Indeed, perhaps the best measure of futurology's resurgent acceptance is a list of organisations that use it to guide product development or company strategy - among them Siemens and DaimlerChrysler. The European Commission has a couple of foresight units. In September, the *New York Times* appointed its own in-house futurist. The OECD has a futures research programme, and the IMF employs scenarios. The UK government's Foresight programme, including a horizon-scanning centre, has a £2m annual budget and 30 full-time staff. Its Futures Analysts' Network (FAN) Club meets every quarter. Last year, the programme produced a hefty study on the future of transport in the UK.

The future of futurology looks brighter now than it did five years ago, which pleases Andy Hines. For now, though, he acts as though he won't believe it until it is here. He maintains a slightly beleaguered air about him, just like most futurists - a craving for recognition, a chance to come in from the cold. "We have all been puzzled that it never really took off," he says. "We are not good at organising. Just getting the word out is a good thing. It helps. The big problem we have is that people don't know this still even exists."

Just give them time.

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THE VISION THING: PLANNING 10,000 YEARS AHEAD

By Natalie Whittle

Even the most immodest of futurologists would probably think twice before looking 10,000 years into the distance. It would be an uneasy gamble to predict estate agents on the moon, or retail developments underwater. The Long Now Foundation, however, is a spin-off of futurology that wants to think "within the framework of the next 10,000 years" - and it is resolutely uninterested in commercial crystal-ball gazing.

Based in San Francisco, the Foundation was established in 1996 with the altruistic aim of encouraging long-term thinking and responsibility in society. Against "faster, cheaper" culture, it wants to foster "slower, better" living. Hence the organisation's name - coined by one of its co-founders, Brian Eno, the polymath musician/producer/commentator.

The foundation has a diverse band of influences - other board members include Stewart Brand, president of the futurologist Global Business Network, and Daniel Hillis, super-computer scientist and former research and development head at Walt Disney. If there was any doubt that they take their mission seriously, it probably suffices to say that the Long Now already counts its dates in five digits, (eg 02007), in order to avoid a deca-millenium computer bug that is due to hit town in about 8,000 years.

Apart from its San Francisco-based Salt talks (an acronym for Seminars about Long-term Thinking), which draw speakers such as The Ghost Map author Steven Johnson, the Long Now has several ambitious projects.

The biggest is the Clock of the Long Now, a giant mechanism being engineered by Hillis to keep time for 10,000 years. A prototype of the clock is already on show at the Science Museum in London, and the foundation has also bought a piece of desert mountain land in eastern Nevada to house the finished model. Rather grandly, the foundation hopes the Clock of the Long Now could even become an icon in the same league as Stonehenge.

There is a lighter side to the Long Now's ideas. On its website it has devised an ingenious way to raise money, Long Bets, where members make far-flung guesses about life in the future. There are also copious links to creative endeavours in the Long Now mould, including the photographic project of artist Jonathon Keats, who has installed a camera in a room at the Hotel des Arts in San Francisco, built to take a single continuous exposure that will last for 100 years. Patience is indeed a virtue.

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