



Futurescape 25 – Fast Future’s 100 Predictions for 2011-2012 – Part 4 – Big Science

Welcome to our latest edition of FutureScape. In this issue in we are sharing the fourth set of our 100 predictions for the world in 2011-2012 – focusing on developments in science and technology that we’ll be experiencing or hearing a lot more about in the year ahead. Our first three sets of predictions can be found [here](#):

[Inevitable Surprises](#)

[Big Conversations](#)

[The Winds of Change](#)

You can also download our new study on the [Future of HR](#)

Copies of a number of our recent and past presentations and reports can be found [here](#)

In this edition we cover the following:

1. Fast Future [Recruitment](#)
2. Winning in Turbulence
3. Request for Testimonials
4. A request for input on the Future of Social Experience
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As always we welcome your feedback and contributions to future newsletters. Copies of previous editions of the newsletter can be downloaded [here](#)

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Watch a short video of Rohit's keynote speech on global trends [here](#)

1. Fast Future Recruitment

Fast Future is recruiting again. We are delighted to report that 2011 is ending on a high with major new projects secured with Amadeus and Imex, plus a number of new proposals on the table, and several keynotes booked for clients such as Microsoft, EDF, Middle East Council of Shopping Centres, Airport Council International, Future Travel Experience Asia, ISPIM, AESC and the Global Airport Revenue Conference.

As a result of these new developments, we are looking for two interns at the present time. The roles will be based in London. Details of the opportunities can be found [here](#).

2. Winning in Turbulence

As we work with clients and audiences around the world, the question we are asked most frequently is *'how are other people responding to the current economic uncertainty?'* Some businesses (and governments) are behaving as though this is a temporary blip in proceedings and hoping for a miraculous turnaround in the outlook. We wish them well. Perhaps more interesting are those who are beginning to accept that 'turbulent' may be the new normal and developing their strategies accordingly. The second most commonly asked question is *'what are the best performers doing?'* Here are five of the most interesting tactics we are observing that can be applied whatever size your organization is:

Service is the Killer App – As many organizations hollow out and individual workloads increase, greater reliance is being placed on external delivery partners. When business goals aren't being met and stress levels are rising, it's easy to see how under-performing service providers can become the first target for our wrath. Under the circumstances, those who can

demonstrate the ability to take problems away and constantly meet or exceed service expectations are standing out.

Develop plans B and C – Everyone has plan A – based on implicit or explicit assumptions about how the economy and our markets may play out – these underpin our current strategies and developing plans B and C. Increasingly we see firms of all sizes also thinking through a range of alternative scenarios. They are rehearsing the future to determine how their goals could be achieved or would need to be adjusted under different circumstances.

STOP! – Undertake a rapid and rigorous bottom up cull of activities which your staff believes add no value. These ‘orgies of elimination’ are not about headcount reduction – the goal is to liberate staff from the initiatives, meetings, reports and processes that deliver no meaningful value. The time freed up can be re-invested in training, new thinking, experimentation or customer engagement.

Re-engage – We are seeing an uptick in attendance in conferences, social events and professional / association meetings. The driver is a recognition that digital is not the only fruit! Face to face contact is still a powerful way to form new bonds, participate in networks, source new ideas, develop partnerships and find the inspiration to drive us forward.

Ask for Testimonials – Many of us are reluctant to ask customers for testimonials – however these are a powerful means of demonstrating the quality and impact of your offering. Resist the temptation to write the testimonial on your customers’ behalf. It is generally better to have a collection of single lines of raw emotion in the customers’ words than a string of similar looking robo-quotes. By all means give prompts on topics they might want to mention:)

What tactics seem to be bringing the greatest benefit for you and those around you in the face of uncertainty?

3. Request for Testimonials

With the last point in mind, I am making a direct request for short testimonials from those who have heard me speak in the past and from anyone who has worked with us as client or business partner or who simply likes our work. Here’s one I received from a recent speech to executives in the aviation sector:

"We were delighted you could make it - your keynote was absolutely outstanding and I have never seen a reaction like that from an audience, and we have had some great speakers at our events down the years like Simon Woodroffe, Gerald Ratner and most recently Richard Reed from Innocent Smoothies. Your presentation received an extraordinary response from delegates with many saying it was the best they had ever seen. You were mobbed! Thanks again for all your effort and collaboration to make the presentation the perfect fit for the audience/event."
Daniel Coleman - Founder and Event Director - Future Travel Experience Vancouver (09/11)

4. The Future of Social Experience

As part of a new study, we want to explore how the experiences on offer might evolve over the next 10-15 years in a range of context such as retail, entertainment, leisure, sport, gaming, travel, cultural pursuits, the arts, museums and other related fields. Examples might include the blending of real and virtual world experiences in gaming and multi-sensory museums. Another is the recently launched [‘6D’ cinema](#) at Schiphol Airport where you can watch 3D adventure films in a ‘motion based seat’ with the experience enhanced through sound, wind and lighting effects.

We are casting our net widely for relevant reports, discussion forums and ideas that have been put forward in these areas. We are also looking for specialists who are working on the future of these fields. We’d be grateful to hear about any examples you’ve come across or suggestions you may have for people we could talk to. Please email rohit@fastfuture.com with your suggestions.

5. Please take our Current Convention 2020 survey on the Future of Corporate and Association Meetings and Conventions

We are interested in everyone’s views – whether you attend events, own them, speak at or design and deliver them. The survey explores key trends driving the future design of these business events. It then goes on to explore the implications for event strategies, financing, meeting design, delegate experience, use of social media, technology and knowledge management.

You can find the survey here: <http://www.zoomerang.com/Survey/WEB22D832TC536>

Please share the link with colleagues who might be interested. Everyone who leaves their email address will receive a copy of the final report. The findings will be presented at the EFAPCO Congress Estoril - January 12th - 14th 2012

http://www.efapco.eu/events/the_5th_congress_2012_estoril_portugal

The survey closes on November 30th 2011. Thank you in anticipation of your support.

6. Happiness

In the face of the anxiety and uncertainty hanging over many economies, it’s very easy for an air of negativity to set in. This can colour everything from relationships to our willingness to innovate and experiment. We make a point of looking out for positive developments and initiatives that seek to inject inspiration and optimism into the world around us.

One noteworthy development that caught our attention is tomorrow’s forthcoming UK [Happiness at Work Conference](#). The event is run by [the Learning Architect](#) - an organization we’d not previously encountered. The aim is to raise awareness of the ways in which ‘happiness’ contributes to business success and sustainability.

Contributors include professionals in the fields of health, happiness and motivation such as [Richard Denny](#), [Dr. David Batman](#) & [Liggy Webb](#). We liked the idea so much that David from our team will be attending and will write a short summary of his key take aways in a future newsletter.

We are also running a prize draw to win a copy of the [‘Happy Handbook’ by Liggy Webb](#), kindly donated by the event organizers. The book provides a “compendium of modern life skills and tools to help you to thrive in the twenty tens and embrace modern living in the happiest, healthiest and most positive way”. Praise for the Happy Handbook includes: “**An essential reference**” and “**A rapid grand tour of living a great life**”.

To enter please reply to this email with your name and address by the end of your business day on Wednesday November 2nd. The winner will be chosen at random. Good luck!

[Happiness at Work Conference](#) November 2nd 2011 - Cotswolds Conference Centre, UK. £195 plus VAT. (All profits go to the [Action for Happiness Charity](#)).

7. **Fast Future’s 100 Predictions for 2011-2012 - Part 4 – Big Science**

In this latest set of predictions we focus on developments in science and technology that we’ll be experiencing or hearing a lot more about in the year ahead.

1) **The Age of Big Data**

Growing attention will be paid to developing and applying tools that help us draw real insight from the massive data sets being accumulated by the likes of government, business and the social media. Predictive analytics will become a topic of hot interest as firms try to anticipate future customer intentions from past behaviours. For example, Google can predict new disease outbreaks far earlier than the health authorities because they can spot and interpret patterns and trends in health related search enquiries.

2) **Super Smart Materials**

Developments in the material and biological sciences will continue to test our imaginations and blur the boundaries between reality and magic. A range of naturally occurring and man-made materials will come to prominence because of their superior strength, flexibility and environmental performance.

3) **The Advent of Smart Cities**

There is growing focus on developing [‘smart cities’](#) which use sensors dotted around the metropolis – managed by an urban operating system to monitor the environment and keep buildings, traffic and services running smoothly. Enabling for example, emergency traffic flows to be managed centrally to provide quick access to first responders in crisis situations.

4) **The Eco-friendly Military**

As modern Western armed forces try to project an image of sustainability, we expect to hear a lot more about ‘green military’ initiatives and potential commercial sector spin-off technologies. The US military has already had notable success flying a [biofueled UAV](#), and aims to use a biofuels mixture for half its [aviation needs by 2016](#).

5) Beyond the touch screen?

The next generation of interface for our portable electronic gadgets will begin to emerge that can react to our [gestures as well as the physical environment](#) around them, taking interactivity beyond the confines of the screen and into the real world.

6) Cloud Gaming

The nature of computer gaming will evolve rapidly with rising popularity of multi-player cloud computing based games that can be accessed from multiple devices. New platforms such as OnLive will use servers over the [internet to run these games](#). The games will cross multiple interactive platforms, enabling individuals to play the same game and track progress across PCs, Macs, TVs with a 'micro-console', iPads, Android and Windows tablets.

7) Self-Powered Devices

Personal electronic gadgets are becoming ever more widespread and consuming [greater amounts of electrical energy](#). In response, there will be an increasing focus on development of electronic devices that can generate power from the [sun, heat, touch](#) and even ambient [electromagnetic energy](#).

8) Human-Powered Implants

As the numbers in developing economies living into their 90's and 100's rises dramatically, greater attention will be paid to the maintenance, repair and replacement of body parts that don't last the journey. In response, revolutionary new implants are being developed that are designed to be long-lasting, sustainable and increasingly 'organically powered' by such means as the patient's own motion, [blood sugar](#) or [breathing](#).

9) The New Space Race

2011 marked the end of the NASA space shuttle programme. In 2012 we expect to see increased discussion about the next frontiers in space travel, with growing levels of activity from state players such as [China](#) and India. The private sector will also become more prominent in its funding of [the next generation of space faring craft](#) as a platform for the commercialisation of space – with suborbital tourism as the most prominent and imminent example through Virgin Galactic and others.

10) Sick? There's an app for that!

Smartphones could become a major platform for healthcare delivery. Apps will cover a range of applications from condition monitoring, managing drug delivery and providing patient advice. For example, [apps linked to medical monitors](#) could help sufferers monitor and manage chronic illnesses such as diabetes and hypertension.

11) 3D Printing of Body Parts

Some of the most exciting applications for the emerging field of 3D printing are in the medical arena. 3D techniques are already being applied in the 'printing' of [artificial human blood vessels](#). The applications over time are almost limitless – raising the spectre of 3D printing entire limbs – designed to order with specific properties such as the ability to withstand high

weight loads – but not by 2012.

12) The Internet of Things

Society will become increasingly aware of the proliferation of sensors and web connected devices – a phenomena being described as '[the internet of things](#)'. The number of connected electronic devices is predicted to rise from around 9 billion to 24 billion devices by 2020. This heralds the prospect of everything from televisions and photo frames to our clothing, cars and pacemakers could be connected in some way to the internet.

13) See-through Gadgets

The media will be profiling how developments in plastic electronics, coupled with flexible [transparent lithium-ion batteries](#) and other see-through electronic components could offer the possibility of translucent electronic gadgets. These transparent smartphones, tablet computers and embedded systems could blend technology seamlessly into our every day environment and offer the potential for a major new market segment to develop.

14) Scaling up of Chinese Science

A key next step in China's rise as a global superpower is to establish itself as a centre for breakthrough scientific innovation across a range of disciplines. Greater attention will be paid to China's investments in a range of sectors such as [biotechnology](#) and clean energy technology. Furthermore its efforts to attract innovators and [woo green start-ups away from the US](#) will all come under the spotlight.

15) The First Deaths Traced Back to a Cyber-Attack.

High-profile data thefts from major corporations, state on state cyber-attacks and viruses such as Stuxnet has raised the issue of cybersecurity to prominence in 2011. As attacks grow in sophistication and even [threaten critical national infrastructure such as water utilities](#), the ongoing concern will be the risk of fatalities, escalating the struggles currently conducted in cyberspace. The debate will move into public domain of how states could or should respond.

16) Eyes on the Prize

A range of developments are underway to use web cameras to monitor and interpret our facial expressions and eye movements. The applications are widespread – from adverts that grow or shrink based on your visual response to e-learning, gaming, security, health care and dating sites.

17) Green Aviation

We expect the airline industry to step up the range and intensity of experimentation with alternative fuels such as those derived from [biofuels](#). Several complete test flights will run on a pure or hybrid combination of these fuels – although it is some way off before we see wholesale implementation to power entire fleets.

18) Visualising our Thoughts

One of the developments we expect to capture the imagination in the year ahead is the

emergence of technology that can create a [visual recreation of our brain activity](#). The technique is its infancy, but has widespread potential ranging from the diagnosis and treatment of brain damaged patients, to applications from entertainment to tourism.

19) Digital Highs

As neuroscience delivers deeper insights into the functioning of the brain, so our understanding grows of the patterns of electrical and chemical stimulation caused by various form of narcotic. This opens up the possibility of delivering a similar stimulus via sound, light or electromagnetic impulse. The range of players who could then get involved is immense – ranging from games developers through to the manufacturers of stimulus delivery headsets. Such developments would transform the drugs landscape and create a moral, legal and policing nightmare.

20) Genome Scanning for All

The advancement of technology will make genome sequencing cheaper and more widespread. Within a decade, insurers and employers may insist on us providing genetic CV's in order to help them analyse workforce medical risk and manage healthcare costs. The website www.23andme.com already offers a \$99 DNA analysis service that enables you to “*Gain insight into your traits, from baldness to muscle performance. Discover risk factors for 97 diseases. Know your predicted response to drugs, from blood thinners to coffee. And uncover your ancestral origins.*” The next major debate will be how to use this information in our daily lives and how to keep this most personal of data [secure from unwarranted access](#).

8. Forthcoming Events

Readers have been asking us to share more information on forthcoming events we are participating in or speaking at. Here is a selection:

[Global Airport Development Conference Barcelona](#) November 8th 2011

I will be delivering a keynote speech on Airport 2020.

[NextGen 11 – The Role of Broadband in Future Economic Growth and Innovation](#) November 15th- 16th 2011 Bristol UK

I will be delivering a session on the role of broadband in driving the next generation of growth industries.

[IQ2 If Conference - The future of architecture, dreams, walls, life and more...](#) November 25th- 26th 2011 London, UK £299+VAT

This is one of those events I'd pay to attend even if I wasn't speaking – the line up promises a feast of brainfood. I am delivering two keynote sessions on:

- *Electronic Highs and Virtual Lows - the digital future of narcotics*
- *Virtual Experiential Travel*

We have negotiated a 20% discount for the first five of our readers who book tickets for the event. Just click on the TX tickets link from the home page and then enter the code TALWAR when prompted. <http://iq2ifconference.com/tickets.html>

9. Rohit on the Road

In the coming months I'll be delivering client speeches, workshops and stakeholder briefings on the future of HR, digital narcotics, virtual travel, the world in 2015-2030, the future of

communications, business complexity, strategic innovation, city development, the future of meetings, the future of aviation and airports, tourism futures, developing entrepreneurship, and the future for sectors such as media, retail, IT, insurance, legal services and infrastructure. Please let me know, if you'd like to arrange a meeting, presentation or workshop on one of my forthcoming trips. I'll be speaking in Abu Dhabi, Barcelona, Bristol, Copenhagen, Dubai, Estoril, Frankfurt, London and Oslo.

10. Presentations at Imex Las Vegas and ICCA Convention Leipzig

Listed below are the sessions I delivered at IMEX and ICCA and the links to download them

- [Meeting Innovation and the Technology Timeline](#) - Examples of meeting innovation from around the world and a timeline of immersive technology developments
- [Global Business Trends and the Implications for the Meetings Industry](#)
- [The Future of Association and Corporate Events](#)
- [Emerging Industry Priorities, Strategies and Business Models](#)
- [Future Strategies for Venues](#)
- [Future Strategies for Convention Bureaus - The Engines of Growth Seminar](#)
- The Future of HR – Transformational Thinking for a New Era in Business http://goto.hyland.com/The_Future_of_HR/
- Hotels 2020: Beyond Segmentation Report <http://www.amadeus.com/hotelit/beyond-segmentation.html>

Please don't hesitate to contact me if I can be of any further assistance or you are interested in talking to us about our speaking, research and consultancy services.

11. About Fast Future

Fast Future is a research and consulting firm that works with clients around the world to help them understand, anticipate and respond to the trends, forces and ideas that could shape the competitive landscape over the next 5-20 years. We draw on a range of proven foresight, strategy and creative processes to help clients develop deep insight into a changing world. These insights are used to help clients define innovative strategies and practical actions to implement them.