



'The Shape of Jobs to Come'

Interview with Rohit Talwar – CEO Fast Future Research

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In 2010 Fast Future Research published 'The Shape of Jobs to Come' – a foresight report for the UK government. The study explored a future timeline of science and technology developments over the period to 2030 and highlighted the new science and technology roles that could emerge or become more prominent. In this interview for the Finnish Science magazine Tiede, Rohit Talwar, CEO of Fast Future comments on the findings of the research.

1) There is a claim that young adults of today will need to shift careers (learn another occupation) 6-7 times in their working future. Is this estimation true?

This suggestion is driven by a combination of factors. Firstly people are living longer. Average life expectancy estimates in developed economies are rising by 40-50 days per year. The over-80's are the fastest growing age groups in most of these countries. Some demographic forecasters are projecting there is a 90% chance that those under 50 years old today could live 100 years or more and that there's a 90% chance that our children could live to 120. This means people must work into their 70's, 80's and even 90's if they are to support themselves. Hence we are talking about a working life of 50-70 years in length. This is essential as we know current pensions systems cannot cope – typically they were designed for people to retire at 65 and live on for maybe 5-10 years. These pension systems simply cannot afford to pay out benefits for 20-40 years past retirement.

At the same time, advances in science and technology are transforming industries, jobs are being replaced e.g. check-in clerks, and new fields of science and technology, new industries and new professions are emerging. When you add all of these factors together, it is reasonable to suggest that in the future a career or job may last 7-10 years before you have to switch to a new one. Hence in a 50-70 year timeframe it is easy to see that an individual may need to think about having 6-7 careers.

2) What kind of skills would you say people now in their twenties would be smart to learn and master – in order to improve their chances of being employable in 20-30 years' time?

I think this is not just about learning particular professional skills although this is important. For example learning a particular programming language like Java or C++ may be important today but those programming approaches will have been replaced many times over by 2030. Equally, learning the latest biochemistry research methods is important today but scientific research methods will go through many transformations in the next 20 years.

Hence, we also need to make sure that people are learning the higher level skills that will enable them to continue to acquire new knowledge and take on different future roles and careers. This means learning how to learn, mastering things like accelerated learning techniques, creative problem solving, learning to cope with or 'manage' complexity, decision making under uncertainty, team working and managing our own health. These skills are something we should be encouraging and developing in people in their 50's right through to children who are just entering the school system. Lifelong learning is essential if we are to lead a very long life.

Perhaps the most important skills will be teaching everyone to scan the horizon, analyse the emerging trends, ideas and signals of what might change in the future and use these insights to plan and manage our own personal futures. Everyone needs to become a futurist to manage themselves.

3) *Is there any trend you are worried about among young people's current favourite learning choices (when considering their future) – or any that you are happy about?*

I think we have to recognise that the way people learn will continue to evolve and so will our understanding of the brain and the factors and approaches that enhance or hinder learning performance. For some, social media may be a powerful tool to help them assimilate new knowledge and methods. For others more experiential 'live learning' approaches may be more effective. We have to recognise that we have multiple learning intelligences and enable students to personalise their learning journey. I think that – when used properly - tools like simulations and some accelerated learning techniques can speed up the rate at which we acquire critical knowledge and know how.

However, I do worry that people's attention spans are shortening and everyone seems to be in a rush. Faster doesn't always mean better. We have to ensure that the new techniques adopted deliver the same or better depth and quality of learning and know how transfer. Ultimately, we all want the reassurance that the engineers who built the plane didn't do all their training via Twitter. Equally, I want to know that the doctor performing my open heart surgery has spent a lot of time reading, practicing on virtual models and cadavers before taking the scalpel to my chest!

4) *Any comment/post scriptum you would like to add to the Final report two years ago?*

The aim of the report was to generate awareness and interest and encourage people to think about careers in science, technology, engineering and mathematics. There was a lot of initial interest and the research continues to be referenced two years later. The study has over 100,000 mentions on the web and we continue to receive requests to comment on it from all around the world.

I think the topic has become even more relevant in the face of growing economic uncertainty. An increasing number of countries are looking to science and technology to create the new industries and jobs that will drive future growth. They recognise they must evolve or transform their economies to more socially, financially and environmentally sustainable models and ways of working. Science and technology lie at the heart of that agenda.

Rohit Talwar is the CEO of Fast Future Research. He is a global futurist, strategic advisor to Fortune 500 companies and governments and an award winning speaker. Fast Future is a global foresight research and consulting firm that helps clients understand, anticipate and respond to the trends, forces and ideas that could shape the competitive landscape over the next 5-20 years. Fast Future's work draws on a range of proven foresight, strategy and creative processes to help clients develop deep insights into a changing world. These insights are used to help clients define innovative strategies and practical actions to implement them.

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