

# The shape of jobs to come

# Possible New Careers Emerging from Advances in Science and Technology (2010 – 2030)

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#### **Contributors**

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**Report Authors** 

# Appendix 4 - The shape of jobs to come - Long List

The list of the top 20 jobs presented in section five above was selected from the long list presented below. The list was compiled through initial desk research, consultation with futurists and future thinkers around the world and an online survey.

# **Medicine, Biology and Biogenetics**

- 1. **Genomics Developer / Architect / Baby Designer**<sup>389</sup> With the unravelling of the human genome, new roles could emerge to design personalised enhancements and select the genetic make-up of your unborn child.
- **2. Body Part Maker**<sup>390</sup> Due to the huge advances being made in bio-tissues, robotics and plastics, the creation of high performing body parts from organs to limbs will soon be possible, requiring body part makers, body part stores and body part repair shops.
- 3. Personal Enhancement Advisors<sup>391</sup> Advances in new materials and nanotechnology, cognitive science, natural therapies and pharmaceuticals will offer an increasingly broad range of legal (and illegal) personal enhancements. These could be used to give sports people a competitive edge, enhance our memory capacity when studying for exams or increase the strength and endurance of soldiers in the field. Roles could emerge for professionals who take a holistic approach advising across a full range of possible enhancements.
- **4. Nano-Medic**<sup>392</sup> Advances in nanotechnology offer the potential for a range of subatomic 'nanoscale' devices, inserts and procedures that could transform personal healthcare. A new range of nano-medicine specialists will be required to administer these treatments.
- 5. Synthetic Life Designer / Scientist / Engineer<sup>393</sup>. Synthetic Life focuses on recreating biochemical life from non-living (abiotic) substances. An increasing range of roles are emerging for those working to creating synthetic life forms that could be used in applications as diverse as tissue repair and bacteria programmed to digest biological material and produce energy.<sup>394</sup>
- **6.** Chief In-Company Health Enhancement Officer<sup>395</sup> To be stationed in every company and responsible for the health of employees. These officers would apply the very latest medical advances from nutritional supplements to memory enhancements to ensure the company's employees deliver superior performance. Those employees who register for these programmes could receive higher salaries, increased bonuses and other perks.
- 7. Telemedicine Technician<sup>396</sup> Telemedicine will increasingly be used both in developed and developing markets for example adopting video links to help treat people in remote locations where there are no local medical staff. A new class of IT technicians with some medical training will emerge to help design and implement appropriate solutions.
- 8. Pharmer of Genetically Engineered Crops and Livestock<sup>397</sup> New-age farmers will raise crops and livestock that have been genetically engineered to improve food yields and 'grow' therapeutic proteins, pharmaceuticals and chemicals.
- **9. In-Company Gene Screener**<sup>398</sup> Employers will need technicians to collect and analyse DNA from potential hires and existing staff. The goal is to screen out workers with a propensity for drug abuse or other conditions that could interfere with productivity.
- **10. Biometric Identification Specialist**<sup>399</sup> Experts developing the technology to identify people based on an eye, palm or voice scan. Today most such technology requires the

- individual to present themselves to be scanned for verification. The experts' challenge is to develop next generation solutions that scan us without interrupting us as we pass through airports, buildings and other areas requiring biometric identification.
- **11. Bioinformationists**<sup>400</sup> Scientists who work with the rising volumes of genetic information to help analyse the data and draw out key patterns and insights that could help in treatment of medical conditions and diseases.
- **12. Geomicrobiologists**<sup>401</sup>. Specialists combining geology, microbiology and the environmental sciences to study how microorganisms can help in applications as diverse as medicine, cleaning up environmental damage, and breaking down waste.
- **13. Experimental Therapy Experts**<sup>402</sup> The explosion of new natural and synthetic therapies will create demand for specialists working holistically to select the right mix of therapies for each person.
- **14. Old Age Wellness Manager / Consultant Specialists** Drawing on a range of medical, pharmaceutical, prosthetic, psychiatric, and natural fitness solutions to help manage the various health and personal needs of the aging population.
- **15. Personal Body Weight / Obesity Consultant** <sup>405</sup> As weight and obesity threatens to severely hinder future GDP, consultants may be appointed by the state, insurance companies, employers and individuals to design personalised solutions.
- **16. Memory Augmentation Surgeon**<sup>406</sup> A new category of surgeons whose role is to add extra memory to people who want to increase their memory capacity. A key service would be helping those who have literally been overloaded with information in the course of their life and simply can no longer take on any more data thus leading to sensory shutdown.
- 17. 'New Science' Ethicist<sup>407</sup> As scientific advances accelerate in new and emerging fields such as cloning, proteomics and nanotechnology, a new breed of ethicist may be required. These science ethicists will need to understand a range of underlying scientific fields and help society make consistent choices about what developments to allow. Much of science will not be a question of 'can we?' but 'should we?'
- **18. Genetic Hacker**<sup>408</sup> These will be people that hack human, animal and plant DNA to create viruses. Some Genetic Hackers will do useful work and will be admired in the same way that we admire software engineers. They may create viruses that enhance crops, protect humans from particular illnesses and prevent the spread of disease from animals to humans. Others will be feared and loathed because their objectives are considered unsavoury or illegal.
- **19. Longevity Providers**<sup>409</sup> Consultants, who after seeing your genome, provide advice on the best ways to prolong your life, and then implement the changes.
- **20. Cryonics Technicians**<sup>410</sup> For the temporary freezing of those wishing to be cryogenically frozen to wait for scientific breakthroughs or new technologies to solve their condition. Others may be frozen before embarking on lengthy space travel.
- **21. End-of-Life Planner**: a person who helps people plan and manage their own death combating the fact that medicine/technology will be able to keep most people technically alive pretty much forever.

#### **Energy**

22. Biorefinery Operative<sup>411</sup> A Biorefinery is a portable bio-generator developed for military applications that can turn food, paper, plastic, and other waste into electricity. Not only will this help troops stay mobile, but it will also increase their security by eliminating telltale information in a unit's waste. Operatives will need sufficient scientific

expertise to understand how the system works and the limits of its capabilities.

- **23. Wind Farmer**<sup>412</sup> These are the people who design and manage the turbines and farms that bring us wind energy. They take into account land areas and air speeds in order to determine turbine sizes, the pitch of the blades and the optimal farm layout.
- **24. Battery Technician**<sup>413</sup> To help address rising demand, technologies for storage of energy will be essential, particularly energy generated from unpredictable renewable resources. This will drive an increase in the use of battery technology ranging from both large scale industrial devices to small scale home systems driven by solar roof technology for example. These batteries will be increasingly complex devices with their own control systems and will require skilled technicians to configure, deliver, install, finetune, maintain, refurbish and replace them.
- **25. Insect-Based Food Developers, Chefs, Nutritionists** <sup>414</sup> As we advance our understanding of the health enhancing properties of different insects, specialist roles will emerge using insects to create new foods and dishes.
- **26.** Chlorophyll Technician<sup>415</sup> Specialists applying a range of engineering, genetic and biological tools to enable plants to absorb more carbon.
- **27. Fusion Engineers**<sup>416</sup> The next generation of nuclear power solutions could potentially require a new set of skills compared to modern day nuclear engineers.

# **Environment**

- **28. Resource Use Consultant** <sup>417</sup>As environmental awareness rises, roles could emerge for advisors who help individual citizens grade the impact of every action and purchase and manage down the ecological footprint of our lifestyles.
- **29. Vertical Farmers**<sup>418</sup> There is growing interest in the concept of city based vertical farms, with hydroponically fed food being grown under artificial growth-enhancing lighting in multi-storey buildings. These offer the potential to dramatically increase farm yield and reduce environmental degradation. The managers of such entities will require expertise in a range of scientific disciplines, engineering and commerce.
- **30. Climate Change Reversal Specialist**<sup>419</sup> As the threats and impacts of climate change increase, a new breed of engineer-scientists are required to help reduce or reverse the effects of climate change on particular locations. They need to apply multi-disciplinary solutions ranging from filling the oceans with iron filings to erecting giant umbrellas that deflect the sun's rays.
- **31. Drowned City Specialist**<sup>420</sup> If climate change happens a lot more quickly than expected, new roles will emerge for experts who can help recover drowned cities or prepare for the consequences of submersion. Whole economic infrastructures will need to be to be transferred, belongings will need to be rescued, and houses must be moved to higher ground.
- **32. Quarantine Enforcer**<sup>421</sup> If a deadly virus starts spreading rapidly, few countries, and few people, will be prepared. Doctors and nurses could be in short supply to prevent or treat the problem. Hence, quarantines could be imposed to keep people in or out of particular locations. Moreover, as mortality rates rise, and neighbourhoods are shut down, someone will have to guard the gates.
- **33. Experimental Petrologist**<sup>422</sup> Rocks, which come to Earth via meteorite, can show petrologists the age of the material and the type of atmospheric gas the stone was exposed to. They can also be subject to experiment to determine where human life could be sustained. Studies thus far have shown potential for future human life on Mars.

- **34. In-Company Sustainability Coordinator**<sup>423</sup> Specialists applying a range of scientific and social disciplines to ensure a company has a culture and operating practices that ensure environmental sustainability.
- **35. Weather Modification Police**<sup>424</sup> The act of stealing clouds to create rain is already happening in some parts of the world, and is altering weather patterns thousands of miles away. Weather modification police will need to monitor and control who is allowed to undertake weather modification activities e.g. shooting rockets containing silver iodine into the air as a way to stimulate rainfall from passing clouds.
- **36. Consumer Energy Analysts** <sup>425</sup> As better energy consumption monitoring tools become prevalent and energy grids are rolled out, analysts studying consumer energy use in real time will be needed alongside the services drawing on these measurements.
- **37. Water Traders**<sup>426</sup> Water is possibly the key natural resource of the 21<sup>st</sup> century and will attract traders and developers in the same way as oil has done.
- **38. Desert Land Rights Trader**<sup>427</sup> Hitherto empty wastes are now huge potential solar energy repositories. Countries will increasingly sell the exploitation rights and a trading infrastructure could naturally emerge.
- **39. Climate Change Compliance Auditor**<sup>428</sup> A role focused on checking if businesses and individual citizens are adapting well or not to increasingly stringent compliance requirements. The role will involve providing best practice advice as well as imposing sanctions on those who fail to meet key targets.
- **40.** Business Consultant for Climate Change Compliance<sup>429</sup> The adaption to climate change may be more important than stopping it. Hence there will massive growth in consultants that can advise firms of all sizes on how best to do it.
- **41. Recycling Analyst**<sup>430</sup> As environmental pressures grow, the number of firms employing recycling specialists will rise.

# **Information and Communications Technology**

- **42. Complexity Analyst / Gaiantologist**<sup>431</sup> The world can increasingly be seen as a network of complex, interconnected systems. Roles will emerge for complexity specialists to study, analyse and attempt to control the behaviour of these systems.
- **43. Personal Entertainment Programmers**<sup>432</sup> Designers of in-person or electronic activities that will meet the need for individualised services.
- **44. Psycho-Customizer**<sup>433</sup> Future generations of mobile phones could offer a range of applications to help monitor and manage stress levels and counsel us on key decisions. A new set of roles will emerge for those who design and programme in a range of psychological support features. Tomorrow's retail assistant could perform behavioural assessments to help customise our devices to match our personality type.
- **45. Human to Machine Interface Controller** <sup>434</sup> Advocates of the 'Singularity' believe that one day humans will be able to connect directly to computers and the internet in order to exchange information. While the monitoring role could be automated, roles will be required to determine what can be transferred and to check the integrity of the downloads, take action if one fails the integrity checks and protect the other people connected to the network.
- **46. Narrowcasters**<sup>435</sup> As the broadcasting media become increasingly personalized, roles will emerge for specialists working with content providers and advertisers to create content tailored to individual needs. While mass-market customisation solutions may be automated, premium rate narrow casting could be performed by humans.
- **47. Data Miner**<sup>436</sup> As the volume of electronically held information increases, specialist roles

- are emerging for forensic data specialists who can sift and sort data using a variety of tools to extract key information, insights and patterns of interest.
- **48. Waste Data Handler**<sup>437</sup> Specialists providing a secure data disposal service for governments, corporations and those who do not want to be tracked, electronically or otherwise.
- **49. Social Network Analysts**<sup>438</sup> Specialists who monitor both the external and internal networks to help the company maximise the benefits while minimising risks. Company analysts would determine how their brand is being portrayed, maximise their presence in the most relevant and popular networks and monitor the exchange of information by employees to ensure confidentiality is maintained. <sup>439</sup>
- **50. In-House Simplicity Experts**<sup>440</sup> As internal systems and processes grow ever-more complex in businesses and government organisations, roles will emerge for those who can analyse and challenge complexity encouraging the streamlining, simplification and elimination of rules, systems and processes.
- **51. Global Work Process Coordinators**<sup>441</sup> Using databases, modelling and real-time interactive systems to coordinate work across employees who are distributed across the globe.
- **52. Privacy Protection Consultants**<sup>442</sup> Because monitoring of individuals will be ubiquitous, **Privacy** Protection Consultants will help individuals decide on a number of social and technological decisions to maintain degrees of privacy.
- **53. Complex Security Integrators**<sup>443</sup> Creators of 'systems of systems' to monitor and manage complex cyber threats.
- **54. Chief Networking Officer**<sup>444</sup> As businesses become more global and increasingly tap into a range of electronic networks, senior roles are emerging to oversee the commercial, technical, legal and security implications of integration into an ever expending universe of networks. Another version of the role would be to maximise the firm's presence in and use of key physical and social networks.
- **55. Virtual Clutter Organizer**<sup>445</sup> Specialists will help us organise our electronic lives. Clutter management would include effective handling of email, ensuring orderly storage of data, management of electronic ID's and rationalising the applications we use.
- **56. Machine Linguist** <sup>446</sup>As machines begin to create their own languages for communicating between each other, we might want to be able to eavesdrop a little.
- **57. Off-the-Grid/off-the-Net Facilitator**<sup>447</sup> for those who want to disappear, either as a lifestyle or to avoid legal proceedings
- **58. Mind Reading Specialist** <sup>448</sup> As the technologies for brain scanning improve and we developer deeper insights into the cognitive, biological and chemical basis of our behaviours, roles could emerge to help 'read' our minds. Customers could include individuals, law enforcement agencies, would-be employers, prospective spouses and parents.
- **59. Quantum Computing Specialist** <sup>449</sup> Quantum computing is already creating roles for systems scientists, designers and engineers. Over time new opportunities will emerge for programmers, quantum network analysts and maintenance technicians.
- **60. Media Ethicist**<sup>450</sup> As media becomes increasingly politically polarised an independent fact check organisation publishing daily reports on misinformation cases might be required. Equally, as more of the information we consume is delivered via the web, roles may emerge to help develop and promulgate appropriate media ethics for the digital age.

- **61. Designer of Advanced Interfaces for Ambient Intelligence systems**<sup>451</sup> Augmented Reality will use a variety of devices from visors to contact lenses to overlay additional layers of virtual information and imagery on the physical objects around us. Roles are emerging for headset designers, application designers and programmers.
- **62. I Knowledge Guide**<sup>452</sup> As the sheer volume of information available to us turns into an avalanche, we may increasingly seek out Knowledge Guides to 'curate' our journeys in cyberspace. These guides would build a deep understanding of our needs and interests and then configure a range of personalised tools, alerts, bots and web crawlers to collect and present the information we want in an easily accessible and digestible format.
- **63. Knowledge Broker**<sup>453</sup> The knowledge market may need a trading system of its own in the future. Brokers could emerge who help clients source the knowledge they desire and place a value on the knowledge others have to sell.

#### **Internet and Virtual World**

- **64. Professional VR Citizen**<sup>454</sup> Professionals who inhabit virtual worlds on our behalf representing our persona virtually while we carry on our physical existence.
- **65. Virtual Lawyer**<sup>455</sup> As more and more of our daily life goes online, specialists will be required to resolve legal disputes that could involve citizens resident in different legal jurisdictions.
- 66. Virtual Property / Home Owners' Association (HOA) Managers<sup>456</sup> Home security and home servers are moving online to survey, control and manage the home environment. As these tools and environmental controls and devices become linked online, much of the property manager's duties and roles will be more efficiently managed via the internet.
- **67. Intelligent Agent Designers and Managers**<sup>457</sup> Specialists who customise our online business, leisure and shopping avatars to reflect our interests, preferences, wish lists, budgets and measurements.
- **68. Avatar Manager / Devotees**<sup>458</sup> Avatars could be used to support or even replace teachers in the elementary classroom, i.e., computer personas that serve as personal interactive guides. The Devotee is the human that makes sure that the Avatar and the student are properly matched and engaged<sup>459</sup>.
- **69. Network Relationship Counsellors** As electronic networks develop the capacity to learn and self-organise, situations could emerge where some may refuse to talk with others. Specialists may be required who combine software networking skills with psychoanalytical expertise to resolve conflicts.
- **70. Computer Sex Worker / Therapist / Designer**<sup>461</sup> Specialists working in the virtual domain who cater for those who want an active sex life that resembles but may not include human contact.
- **71. Virtual Police**<sup>462</sup> The virtual world could become anarchic if there is no set of common behavioural standards, laws and citizen protections. The role of policing the virtual world is expected to be a major growth area as more of our lives and transaction move into the virtual realm.
- **72. Virtual Personal Shopper/Shopping Assistant** <sup>463</sup> An avatar designed to help you shop advising on choices, showing you how you might look in particular clothes and even making purchases on your behalf.
- **73. Cybrarians**<sup>464</sup> Experts categorizing the mass of information on the internet for you, making search more intuitive along the lines of the semantic web.

- **74. Holographer**<sup>465</sup> Movies aren't a Saturday night staple anymore. A plethora of cheap entertainment options, including the Internet, DVDs and videogames, keep viewers in their living rooms. Holography could change this. Consumers won't be able to afford, operate or maintain the equipment at home, encouraging them back into cinemas for three-dimensional movies. Roles will emerge across the cinematic value chain for people to make, edit, and project holographic films.
- **75. Virtual-Reality Actors**<sup>466</sup> Pay-per-view will become pay-per-play, allowing these actors to interact with you in cyberspace dramas.

#### Robotics

- **76. Robot Designers / Trainers** Specialists who design and build customised robots and teach them to perform roles in business and the home.
- 77. Robot Mechanic<sup>468</sup> The robots currently available for sale mostly clean carpets, filter pools or mow lawns. Eventually, these machines will drop in price, and middle-class families worldwide will be able to buy robotic personal assistants--or companions. Sony's Aibo, a robotic dog, was one of the first mass market offerings retailing for about \$2,000. Although the market wasn't ready and the product was withdrawn in 2006, the concept was proven. The attraction is that these pets don't need a vet--but they might need the occasional tune-up.
- **78. Robot Counsellors**<sup>469</sup> As robots develop the capacity to learn, they could acquire their own neuroses or pick up those of their owners / programmers. A new role combining robotic technician and psychotherapy skills could emerge.

# **Transportation**

- **79. Hydrogen Fuel Station Manager**<sup>470</sup> A Ford Motor Company study found that Hydrogen could be cost-competitive with gasoline if refuelling stations were mass-produced. The hydrogen would be produced on-site, so managers would need an entirely different set of skills than those required in today's gas stations.
- **80. Dirigible Pilot**<sup>471</sup> Dirigibles (blimps) could revolutionise life in the developing world, according to futurist Joel Barker<sup>472</sup>. They're relatively cheap to operate, don't require expensive infrastructure like runways and can stop in midair to drop off passengers or deliver goods.
- **81. Alternative Vehicle Developers** <sup>473</sup> Designers and builders of the next generations of vehicle transport using alternative materials and fuels. Could the dream of truly ecofriendly transport and cars that travel underwater or fly become a reality within the next two decades?
- **82. Teleportation Specialists**<sup>474</sup> Teleportation is often seen as the holy grail of transport moving people from one point to another almost instantaneously. Should it become a reality, a whole new industry sector will emerge creating opportunities for teleport designers, operators and mechanics.
- **83. Solar Flight Specialists**<sup>475</sup> Solar flight offers the potential to fly for years on end, with only the sun as power once airborne. Opportunities could emerge for solar plane designers, engineers, technicians and pilots.
- **84. Infrastructure Specialists**<sup>476</sup> Massive investment in sustainable infrastructure creation is required to help the developing world transition to higher standards of living. At the same time the developed world needs to transition to more sustainable infrastructure models. A new breed of multi-disciplinary experts is emerging to help design tomorrow's sustainable infrastructure solutions and facilitate the transition to non-carbon based

transport fuels.

**85. Monorail Designer**<sup>477</sup> Monorail is increasingly seen as a more sustainable transport solution for densely populated cities. Opportunities will increase for designers who can create environmentally sound, mechanically efficient rapid monorail transport solutions for the rising urban population of the planet.

# **Space**

- **86. Spaceline Pilots**<sup>478</sup> With Virgin Galactic and others pioneering space tourism, space trained pilots will be needed. Would-be pilots can expect to undergo rigorous mental and physical examinations to ensure they are up to the psychological and physical rigours of space travel.
- **87. Spaceport Designers**<sup>479</sup> Space tourism will need its own Spaceports providing 'launch' facilities far different to that of an airport. For example, passengers may need to undergo 24 hours or more of acclimatisation training, psychological assessment and physical checkups before embarking on even the shortest sub-orbital flight.
- **88. Space Tour Guides**<sup>480</sup> A new role could emerge for specialists in astronomy who can guide us in exploring the cosmos whilst on vacation.
- **89. Space Architect**<sup>481</sup> Designers of physical solutions to enable the habitation of space and other planets. Current projects at SICSA (University of Houston) include a greenhouse on Mars, lunar outposts and space exploration vehicles. 482
- **90. Terraformer of the Moon and Other Planets**<sup>483</sup> This role involves making a planet hospitable enough for colonisation / mining operations. Such roles will require expertise in atmospherics, geology, petrology, engineering, agriculture, environmental sciences and physiology.
- **91. Astrogeologists, Astrophysiologists and Astrobiologists**<sup>484</sup> A range of space-oriented physical and natural scientists will be required to fully explore, understand, and profit from the exploration of space.

#### **Demographics**

**92. Population Status Manager**<sup>485</sup> A potentially controversial role - applying a range of incentives, educational measures and possibly medical interventions to reduce population growth.

#### **Culture and Leisure**

- **93. Personal Learning Programmer.** A learning programmer would create ideal, personalized sequences of learning experiences from media libraries suited to the goals, interests, mind and mood of a learner. Tools that a learning programmer might use could include various kinds of brain imaging, psychological testing, DNA testing, neurochemical sensors, neurochemical supplements, knowledge of learner types and a vast indexed library of evidence based experience modules (media).
- **94. Societal Systems Designer**<sup>487</sup> Roles will emerge that combine complex systems theory will ethnographic, cultural, economic, political, environmental and educational insights to help design societies capable of surviving and thriving in the 21<sup>st</sup> century.
- **95. Social 'Networking' Worker**<sup>488</sup> Social workers for those in some way traumatized or marginalized by social networking.
- **96. Intelligent Clothing Designer / Engineer**<sup>489</sup> An increasing range of roles will emerge in the development of clothing with built in technologies that enable the clothing to adjust

- its properties to different weather and lighting conditions. A more commercial market will also emerge for fashion clothing that includes a range displays, changes colour according to the wearer's mood and can even change its form for different social settings.
- 97. Ghost Experience Assistant<sup>490</sup> A service for the super rich, who, limited by time, are unable to do everything expected of them, and so outsource experience gathering to third parties. These third parties will match the physical and psychological profile of the customer and so are more likely to capture the essence of the experience in a customer friendly way. They would write up or in some way or other relay the experience such that the customer could vividly pretend that he/she himself had experienced it. At some point, memory download could enable the ghost to transfer the entire experience to the customer.
- **98. Personal Branders**<sup>491</sup> An extension of the role played by stylists, publicists and executive coaches –advising on how to create a personal 'brand' using social and other media. What personality are you projecting via your Blog, Twitter, etc? What personal values do you want to build into your image and is your virtual image consistent with your physical world persona and your goals?
- **99. Socialization/Culturalisation Therapists**<sup>492</sup> Specialists trained to help us loosen the hold that socialisation has on people so they are able to live freer and happier lives.
- **100.** Enhanced Games Specialist<sup>493</sup> Developers of alternate specialist sports for people with body modifications or memory enhancements. Roles could include everything from coach to commentator and designer.
- **101. Memetics Manager/Analyst/Trader/Generator**<sup>494</sup> A meme is a set of ideas, cultural beliefs, customs or practices that can be transferred from one mind to another using speech, visual gestures or movements. A set of roles could emerge around creating, managing and analysing cultural information transfer based on the concept of the meme.

# **Politics, Economics and Commerce**

- **102. Director of Responsible Investment**<sup>495</sup> An oversight role ensuring that a firm's investments are scientifically, socially and environmentally responsible and ethical.
- **103. Executive VP Foresight, Oversight and Governance**<sup>496</sup> Roles are emerging to ensure organisations are adopting a continuing long term, integral and systemic view of the whole operation and its context.
- 104. Currency Designer<sup>497</sup> Someone who customises a currency system specific to a group's needs. Features that would need to be considered are the rules of exchange, who is involved and in control of the data, who has access to the currency, who controls the money supply e.g. who decides when more money should be 'printed', and the technology infrastructure that enables access to the currency for example mobile phones and open source platforms.
- 105. Time Broker / Time Bank Trader<sup>498</sup> Alternative currencies will evolve their own markets for example time banking already exists. Time Banks are community exchanges that enable individuals to earn time credits for performing services for the community and spend those credits on buying services from other community members.
- **106. Scarce Metal Tracer**<sup>499</sup> With the advancement of technology comes also the need for more globally scarce industrial metals. A trading infrastructure and trading roles are springing up around these markets.
- **107. Non-military Defence Specialists** 500 Experts in wielding non-military instruments of

- power such as strategic management of perceptions and the use of moral authority.
- **108. Unconditional Basic Income (UBI) Manager**<sup>501</sup> Administering funds sufficient for living a life without paid work. Such a role would likely be a government or local authority employee and would draw on deep customer profiling to understand the absolute minimum each unique individual needed to survive.
- **109. Black Swan Life Advisory**<sup>502</sup> Black Swan events are those low-probability, high-impact, hard-to-predict events that can have a major positive or negative impact on our lives. The advisory role would help you map out categories of black swan events based on their impacts and then help you determine appropriate responses on the basis that forewarned is forearmed.
- **110. Authorised Narcotics Salesman**<sup>503</sup>**:** As drugs as legalised, and more 'legal highs' are available over the counter, a regulated class of authorised sales people could emerge.