Ten jobs of the future

It's becoming more and more important for graduates to have skills across a number of fields," added Steve Tooze, Foresight Editor from The Future Laboratory, who co-authored the report.

Tomorrow's graduates will be applying for jobs working in virtual worlds and outer space, experts claim, following the release of a new report predicting career trends for the next ten years.

Research conducted by a group of leading technologists, academics and industry analysts suggests that a host of new job options will become available to those graduating in less than a decade's time, including "ethical technology advocates", "sustainable power innovators" and "virtual habitat designers".

The report highlights that 65 per cent of school students in university today will take up jobs that don't exist yet. Those involved in the research suggest this means it is more important than ever for graduates to develop a range of skills in order to "future proof" their careers, moving away from traditional single-skill degrees or methods of learning.

Taking into consideration the changing patterns in STEM career paths in particular, researchers from Microsoft Surface and The Future Laboratory were able to predict new trends by considering briefs that may be niche now but will eventually be considered mainstream.

1) Virtual Habitat Designer - *Required skills/qualifications: Architectural design, editing, psychology*

By 2020, the total global market for VR technology will be worth $40bn, and researchers predict tens of millions of us will spend hours each day working and learning in virtual reality environments by the year 2026. The role of a Virtual Habitat Designer will be to design these worlds, creating suitable environments for virtual meetings to take place, or VR galleries for artists to display their work.

A typical day at work could involve anything from building a hyper-realistic virtual office complex where colleagues from around the world can meet and work together, to creating a virtual replica of a Premiership football stadium where gamers can 'be' their favourite player, or reconstructing a World Heritage site, such as Machu Picchu, in cyberspace to cut down visitor numbers to the fragile real destination. Deakin University in Australia has already collaborated with software developers to offer the world's first graduate diploma of virtual and augmented reality, starting in September 2016.

2) Ethical Technology Advocate - *Required skills/qualifications: Communications, philosophy, ethics*

In the next decade, the era of robots will dawn – from personal assistants to manual labour and customer service, and it is estimated there will be an extra 55,790 new jobs in the field of robotic engineering by 2018 alone. An Ethical Technology Advocate will act as a go-between for humans, robots and AI, setting the moral and ethical rules under which the machines operate and exist.

This will become more increasingly important, says roboticist and artist Alexander Reben, who has already created the first robot that can choose whether or not to inflict pain on a human.

"I've proved that a harmful robot can exist," he says. "So we will need people who can confront our fears about AI getting out of control."

3) Digital Cultural Commentator *Required skills/qualifications: Art history, bus studies, PR & marketing*

In ten years' time, visual communication will dominate social media. This is already apparent with Instagram set to grow by 15 per cent in 2016 compared to just 3 per cent for the wider social network sector. Workers who can master this shared language of imagery will be much sought after as communicators to mass audiences by businesses and art institutions.

Frances Morris, director of Tate Modern, believes skilled workers such as digital culture commentators will be key to enabling art institutes such as her own to attract visitor spending power and guarantee future commercial success.

"They are the ones that will allow audiences to have a playful encounter with a museum and art gallery that doesn't make them feel stupid, so suddenly they feel it's a place for them," she says.

4) Freelance Biohacker - *Required skills/qualifications: Biosciences, medical methodology, data analytics*

Science has long been dominated by professional teams working in universities, corporate research and development departments – but the rise of open source software platforms will democratise this sector, say researchers.

Open-source gene editing tool CRISPR is already allowing thousands of scientists around the world to collaborate on searching for treatments for Depression, Schizophrenia, Autism and Alzheimer's.

Freelance biohackers will work remotely on open-source software platforms along with thousands of others in virtual teams connected online. Dr Darren Nesbeth, a synthetic biologist at UCL, predicts that biohackers will fuel major scientific breakthroughs because they can spend their time brainstorming.

5) IoT (Internet of Things) Data Creative - *Required skills/qualifications: Engineering, problem solving, communications and entrepreneurship*

The IoT is already transforming the world we live in, with devices from cars to home electrics being embedded with electronics, software and sensors that allow them to collect and exchange data.

Big data analytics and the IoT will create 182,000 new jobs in the UK and add £322bn to the economy by 2020, research from the Centre for Economics and Business Research predicts.

IoT Data Creatives will sift through the waves of data being generated each day by devices in our clothes, our homes, our cars and our offices and find meaningful and useful ways to tell us what all that information is saying. They will need to have three key talents: a finely honed ability to recognise patterns, a skill at asking sharp and difficult questions, and a natural flair for storytelling.

2025 and beyond

6) Space Tour Guide Already on the horizon thanks to the likes of Virgin Galactic, Earth orbit will become the new frontier for adventurous travellers by 2026. And a whole new category of jobs will come about to make the space journeys safe and enjoyable. They will use their knowledge to construct visits to the more interesting parts of Earth's orbit.

7) Personal Content Curator By the late 2020s, software-brain interfaces, pioneered by teams of neuroscientists, will have started to enter the mainstream, allowing mass audiences to read and capture thoughts, memories and dreams. Personal Content Curators will help people to use these systems to increase the storage capacity of their over-stretched minds, providing services that allow them to dip in and out of treasured memories and experiences at will.

8) Rewilding Strategist By 2025, the planet will struggle to cope with nine billion humans and the resources they require, and traditional conservation won't be enough. Rewilding Strategists will stitch together viable ecosystems in stressed landscapes, using patchworks of flora and fauna from all over the world, reintroducing plants and animals that have been extinct in a region for centuries in order to create resilient and vibrant landscapes

9) Sustainable Power Innovator By the mid-2020s, resource depletion will mean a shift to sustainable energy. The main struggle here will be storing power for the days when the wind doesn't blow or the sun doesn't shine. SPSs will be experts in chemistry and material science will invent new battery storage capabilities to help cope with the power demands of the ever-growing reliance on the Internet of Things.

10) Human Body Designer Engineering advances will extend the average healthy human life as the growth of replacement tissues and organs becomes an everyday and affordable proposition. HPDs will use bio-engineering know-how to create a huge range of customised human limbs - both fashionable and functional.