

## The Digital Rose Garden health and safety in the changing workplace

Leading article – **Global Financial Tribune:**

WiMax immersive edition – 1 December 2017

It's official. Yesterday's report from Work, Life and World tells us so. The roaring 1920s are back. And where do we go to taste the energy and innovation of those boom years of old? Well, believe it or not, to work.

The world of work is very different now from even five years ago. Technologies have advanced more in the last ten years than in the previous one hundred. Pervasive computing, immersive communications, biotechnologies, nanotechnologies, and new materials are transforming production, offices, homes, our relationships, even ourselves. We are all explorers now: and we'll take a little risk along the way. As for work-life balance, what about it? To quote last year's Productivity Consortium's ad campaign 'Work? Life? It's all living!'

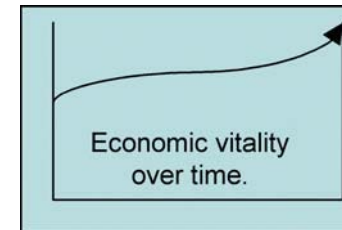
We work 'glocally' – in small, high tech outfits doing global business – so where we work barely matters at all. Why should it when immersive communications – witness last week's videophone sunglasses launch – can take you anywhere in the world in an instant? So we work at home or rent a desk at the neighbourhood office down the road. 'Factories' are cleaner, greener, self-monitoring, self-repairing.

Yes, it's great to be at work as we near the roaring 2020s. Or it is if you're one of the 50% working in the brave, new, risk-embracing world of biotechnology and innovation. For the rest of us, it's not all good news.

We worry about keeping pace with developments and about what happens when systems collapse; we can build virtual friendships on-line but nothing really compensates for a chat at the coffee machine; and increasingly, we wonder if human performance enhancement technologies, both bionic and personality improving, are turning us into something else, something almost trans-human.

Others see a divide between those who work within the innovation dynamo and those who do not. Manufacturing jobs, contrary to predictions, are still very much around, albeit transformed by intelligent infrastructure. Building continues apace, particularly as the 2018 World Cup approaches and as docks are expanded to meet our ever-increasing import needs. These jobs can't be done at home. And neither can some of the new jobs – sorting rubbish by hand for recycling may not be the most glamorous of occupations but over 150,000 of us now do it. In social occupations, we still need policemen to patrol our high streets – vastly changed as chain stores move online – and we still need carers for the elderly: with life expectancy now at 93 years and rising, we'll need many more in the future.

The changing workplace has transformed the lives of millions for the better; for others, not at all; and some, for the worse. We're heading for the roaring 2020s – but it's not yet all coming up roses.



### KEY FEATURES OF THIS WORLD

- STRONG, INCREASING UK COMPETITIVENESS
- ECONOMIC BOOMTIME
- CULTURE OF PARTNERED RESPONSIBILITY
- INTER-CONNECTED SOCIETY
- SUSTAINABILITY: EFFICIENT, ELEGANT DESIGN
- LOW-FOOTPRINT CONSUMPTION
- IMMERSIVE COMPUTING & MEDIA
- WORKPLACE IS EVERYWHERE



# Horizon Scanning: health and safety in the changing workplace

Breakout  
Groups

## The Digital Rose Garden health and safety in the changing workplace

### VALUES

- First loyalties to digital social network and communities of interest;
- Value exploration and creativity;
- Focus on transcending the life / work conflict.

### HEADLINES

“Work? Life? It’s all living!”  
The roaring 1920s are back.  
Virtuality Dependence tops sick note list.  
Brain-Enhancing Drugs Boost Productivity  
UK Brain Gain Boosts Innovation  
Family sue over care home bionic suit accident  
1 GB-wide broadband in 50% of UK homes  
UK Net Hub down 2 hours after net attack; hackers get 10-year jail term  
Tonight I’m gonna party ‘cos I’m 99!

### QUOTES AND METAPHORS

“Green de luxe”: eco-design is elegant and parsimonious.  
Not ‘shop ‘til you drop’ but ‘mod your bod’;  
The changing workplace has changed the lives of millions for the better

Worker SUE (Ex Air Host): “I’m gutted I lost my job to a robot, but now I work as a virtual holiday rep in Third Life/Westworld.”

Business Owner NEILL (of high tech company Limb Assistive Devices, LADs): “Demand for our bionic limbs remains high and is rising now we’ve introduced a new leasing system for seniors.”

Employee representative TED: “I’m working closely with various Government agencies looking at the many ethical issues associated with the use of Human Performance Enhancement technologies in the workplace.”

Local authority employee RAHEEMA: “I just don’t know who is working and who is not.”

Health and safety representative STEVE: “WiFi remote safety inspections are a breeze, but we’re dealing with ever increasing incidences of VRA (Virtual Reality Addiction).”

### ADMIRER PEOPLE

Ray Kurzweil  
Philip Rosedale

### A THRIVING COMPANY

An SME with a small staff mixing locals and ‘knowledge nomads’, producing biomimetic clothing designs using genetically tailored bioluminescent textiles for the global market.



\* These scenarios are intended to stimulate thought. They are in no way predictions of the future and do not represent HSE views on how the future may develop.

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### Partnered Responsibility

- Pro-active adoption of technology, management of risk a partnership among individuals, business, and government;
- Ability to absorb impacts of conflict/war, resilience in face of economic/social/ other shocks.

### Inter-Connected Society

- People are more politically engaged and unified – act in partnership with government;
- Generations are more closely knit, and families are more inter-knit with interest groups: the cyber-extended family;
- An enhanced sense of connection to, and responsibility for, the national landscape and global environment.

### Immersive Computing

- Seamless, immersive digital data/media environment (telecoms and computing networks; Wifi / RFID);
- Overlays the real world and everyone accesses it constantly.

### Economic Boomtime

Increased UK competitiveness

- Harmonisation of regulations; differently abled in employment; incorporation of migrants; enterprise culture, expectation of well-being, and social cohesion.

### A New Global Balance

- Globalised capital and BRIC economic strength;
- Partnerships as emerging economies strengthen and move to centre stage;
- UK Economy booming, generating innovative goods and services;
- Labour force growing – ‘Knowledge nomads’ in-migrating: UK is the place to be;
- Offsets ageing of UK society;
- Business initiatives succeed;
- Innovations based on biosciences, materials sciences, design expertise – linked to CSR; small, nimble, global enterprises.

### Low-Footprint Consumption

- Avid consumers of experience, not consumer goods – but buy high quality when they buy;
- Designer food – but eco-friendly;
- Value parsimonious design resulting in resource conservation;
- Low footprint holidays: Devon Riviera;
- Beyond health to HPE (Human Performance Enhancement) and augmentation;
- But still widespread obesity.

### Sustainability Works

- Sustainability for design elegance and parsimony of system solutions;
- Embrace technology innovation, but take responsibility for impacts.

### Workplace is Everywhere

- Transformative high tech;
- “Glocal”: small enterprises do business globally;
- Workplace has exploded and been absorbed: it’s everywhere;
- Biosciences, new materials;
- Ever more rapid technological advances as pace of change outstrips development of social values, e.g., ethics.

### Health and Safety Implicit

- Workplace stressors/risks: stress from over-immersion;
- Home stressors/risks: over-augmentation; over-reliance on cyber social networks;
- Leisure stressors/risks: adrenalin overload;
- Attitude to H&S: a matter of exceeding congenital potential;
- H&S infrastructure: in partnership with peers and government; H&S built in at design phase, more automated H&S monitoring and control;
- Extent of regulatory structure: HIGH