



UNIVERSITY OF
LINCOLN

The Future of Vocational Skills

Professor Sharon Green

The NCFM

- A national and local resource for the Food and Drink Industry
- A UK leading centre for research and innovation in the application of Robotics and Automation; Food Chemistry and Microbiology; Food Insights and Sustainability (FISS)
- A leading provider of Apprenticeships for the sector
- Dedicated to part-time learning - c. 250 UK businesses - 2,000 learners annually
- 55 team members



Vocational skills for the future

- What technology do we need?
- Considering skills needs will continue to change in the next few years
- Insufficient training programmes to support the needs of SMEs
- Barriers to being able to access training
- Rural accessibility



Skills for the future

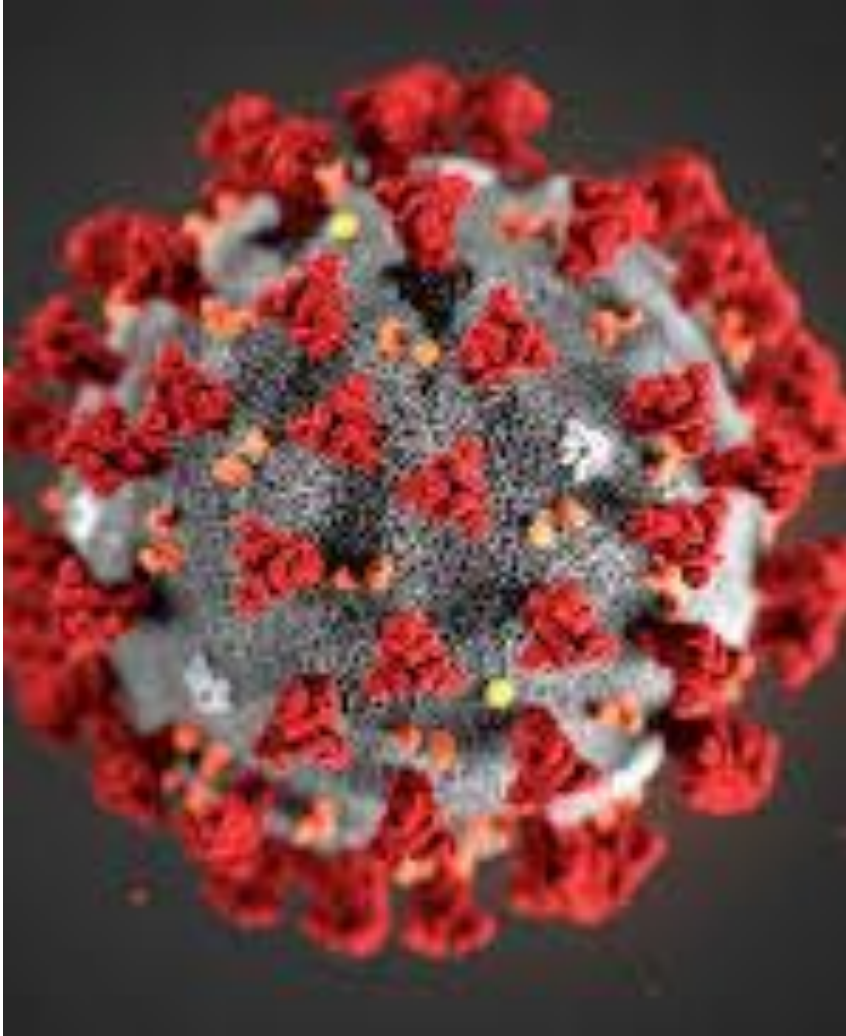


Skills for the next generation

- 65% of children in primary schools will work in newly created jobs and functions
- Nearly 50% of the subject knowledge acquired during 1st year of a 4 year technical degree is outdated by graduation
- By 2030, there will be a talent deficit of between 600,000 to 1.2 million workers for financial/business sector, and technology, media and telecommunications sector.

Universities UK 2018

Covid 19



- Skills needs have changed due to Covid
- Labour shortages
- Disruption to considering school/college leavers
- Use of technology
- Shift in thinking and planning process

Are Apprenticeships the answer?

- Do employers use apprentices to address skills issues?
- Are there any issues relating to the availability of apprenticeships that are creating barriers?
- Do employers support the policy of apprenticeships in England?
- Do people know what apprenticeships are available?





Employer concerns

- The scale of levy and non levy payments
- The relevance of apprenticeships
- The skills required by the business
- The additional costs involved especially with recruitment and no support with salaries
- The devolved nations issue
- 20% backfill costs or time
- Loyalty and finding young people within SMEs

What young people say



How do we measure desired characteristics?

Creativity, critical thinking, resilience, motivation, persistence, curiosity, questioning, humour, endurance, reliability, enthusiasm, caring, self awareness, self discipline, empathy, leadership, compassion, courage, resourcefulness, spontaneity and humility...

Skills for business

Automation is having a major impact on larger businesses

It is not as simply replacing manual labour with machines

Installing automation will potentially:

- Change the skills needed – retraining/upskilling need
- Increase skill levels and progression opportunities
- Increase salaries and make the sector more attractive
- May affect staff retention – both positive (career progression, salaries) and negative (staff with automation skills poached)

Education and skills development

Employer values and vision

- Employer needs understood by providers
- Learner needs verses what can be funded

Managing expectations

- How do we balance employer expectations
- Managing expectations of employees

Experiential learning

- Hidden curriculum of skills and behaviours
- Individual and ever evolving and requires loyalty

Relationships and collaboration

- Shared values and managing the negatives
- 2 to 3 years to build relationships and networking



Preparing for future needs
where disruptive technologies
are developing at pace

What change means for business

- Covid 19 - change is violent and uncontrollable
- The future is unpredictable making it harder to prepare for
- Things can feel chaotic and confusing
- We might lack clarity because it is hard to know what the root cause of the problem is
- So....how can we know skills needs next year, in 5 or 10 years time?

Pre Covid 19 4th revolution (Industry 4.0)

- 4th (2011-) focused on autonomous machines, linked together digitally with 1 in 3 jobs being replaced in the next 15 years
- Focus is now on Policy and Research
- Disruptive situations destroying existing businesses and creating new business
- Changes in supply chain forcing decision making process, rural communities thrived!

A VUCA World

- **VUCA** is an acronym used by the American Military
- It was the response of the US Army War College to the collapse of the USSR in the early 1990s
- Different enemies, resulting in new ways of seeing and reacting

DVUCAD post 9/11

- Disruption
- Volatile
- Uncertain
- Complex
- Ambiguous
- Diversity

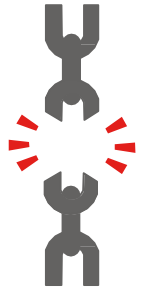
“In a VUCA world, customers want to make the smallest possible decision, as late as possible.”



“Your leadership journey will include more frequent pathway changes”



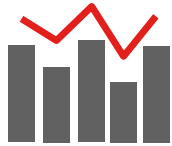
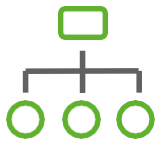
DVUCAD – negatives into positives



DISRUPTION



Discipline



VOLATILITY



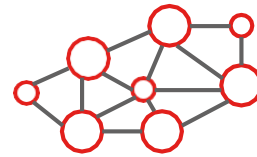
Vision



UNCERTAINTY



Understanding



COMPLEXITY



Clarity



AMBIGUITY



Agility



DIVERSITY



Data



Investors in people – 6 qualities

1. A balanced approach to risk
2. Open to experimentation and comfortable with uncertainty
3. Psychological and physical self-awareness
4. Comfortable with – and not prejudiced towards – change
5. Curiosity, with the ability to learn fast
6. Solution-oriented with ruthless prioritisation

<https://www.investorsinpeople.com/knowledge/6-qualities-in-a-vuca-world/>

World Economic Forum 2016

in 2020

1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management
5. Coordinating with Others
6. Emotional Intelligence
7. Judgment and Decision Making
8. Service Orientation
9. Negotiation
10. Cognitive Flexibility

in 2015

1. Complex Problem Solving
2. Coordinating with Others
3. People Management
4. Critical Thinking
5. Negotiation
6. Quality Control
7. Service Orientation
8. Judgment and Decision Making
9. Active Listening
10. Creativity

Skills and behaviours

- Technology undermining security and stability in education, productivity, employment and economy
- Impact of technology is changing how we produce food and drink, think as managers and educate
- Dramatic changes affecting education - high level emotional intelligence



Predicting longer term

- Vocational education holds the key with extraordinary opportunities (T levels etc.)
- Solutions will be dependent on skills development, but we have to keep adapting by working flexibly and at the pace of change
- We may or will have to adapt to survive
- Skilled, well rounded, engaged employees will adapt to their changing roles in the future
- Will Covid change the way we work forever?

Question time



shgreen@lincoln.ac.uk

07843658937