

**Professor Marc
Griffiths**

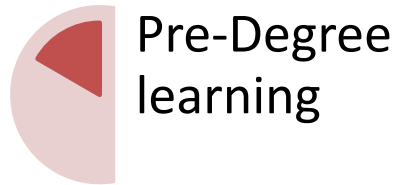
**Pro-Vice
Chancellor & Head
of College for
Health, Science &
Society**

Strengthening regional engagement between ICSs, HEE, Higher and Further Education Sectors

*Exploring, developing and delivering new models for education
and training, taking into account geographical spread, population
need and future learner and workforce requirements*

16th February 2023

Connected with Partners | Our offer for learners



Pre-Degree learning

TNAs

Foundation Degrees



FE / HE / NHS Partners



Degree learning

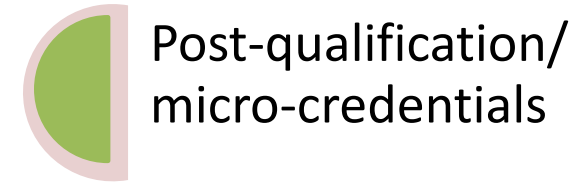
Degree Programmes

Degree Apprenticeships

Micro-credential learning



FE / HE / NHS Partners



Post-qualification/
micro-credentials

CPD provision / Micro-credentials

Specialist Practice

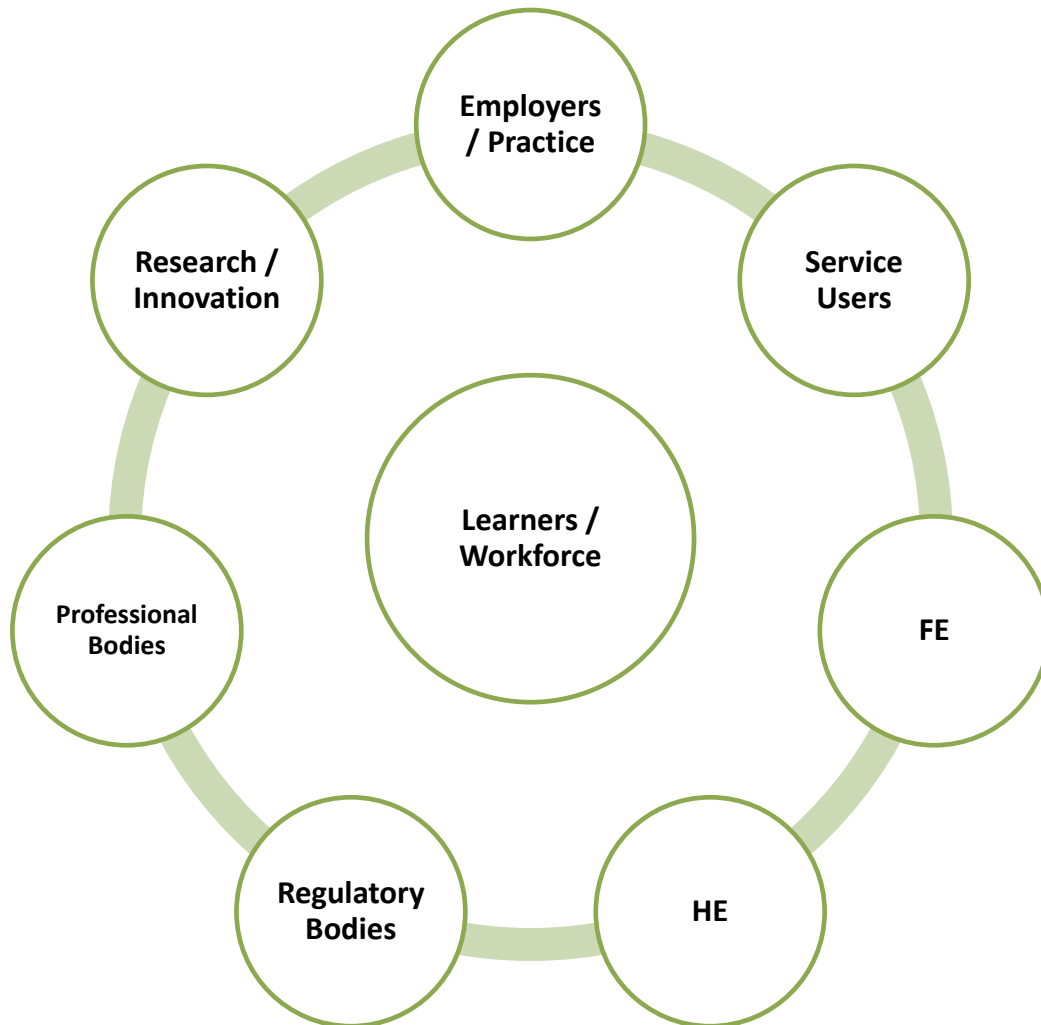
Advanced Practice

Doctorate



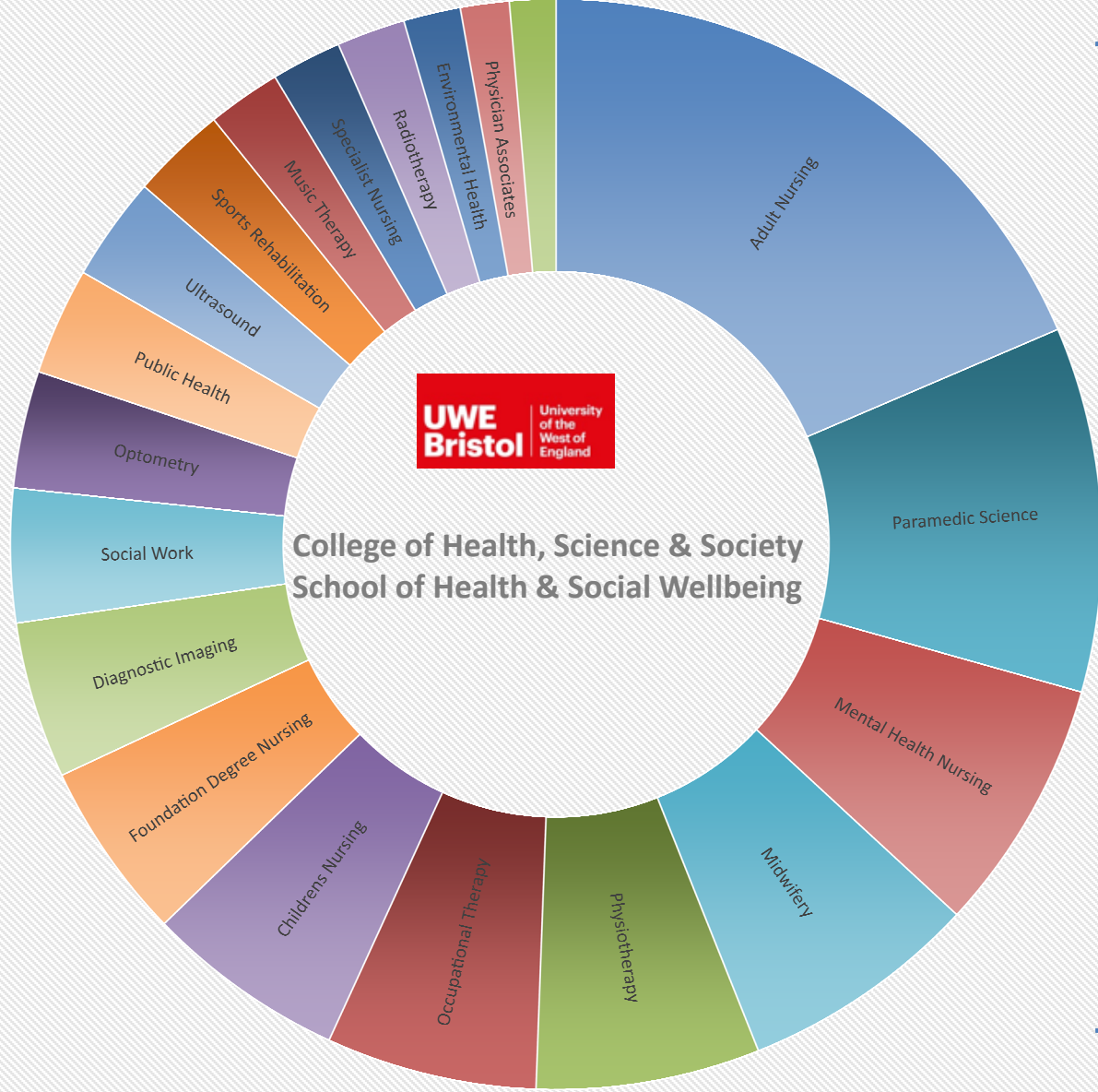
FE / HE / NHS Partners

Working Together | A multi-system approach for Health & Social Care



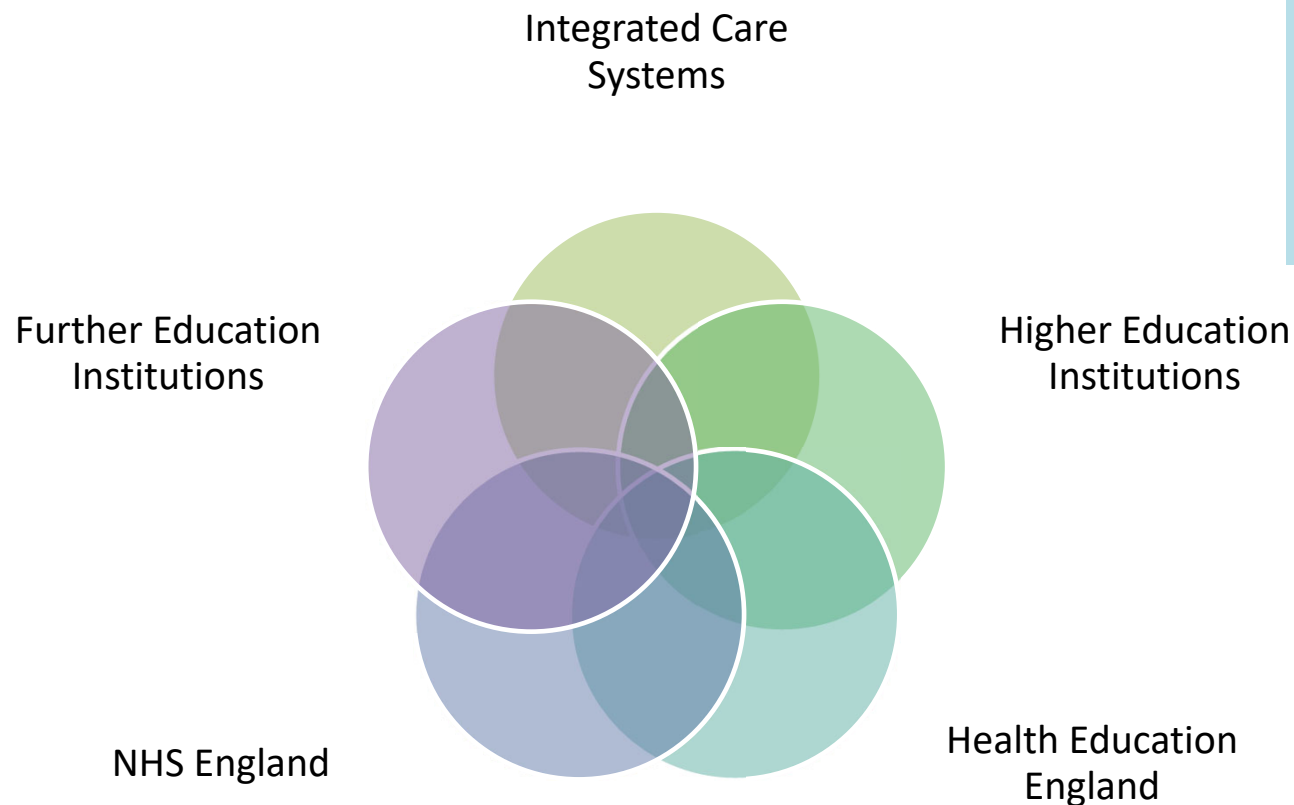
School of Health and Social Wellbeing – Student Profile

Schools and Colleges Outreach work
Meaningful Data / Analytics
Future roles and professional identities



Connected Health and Social Care Workforce offer
Generalist / Specialist workforce
Capturing intelligence from workforce

Creating a strong ecosystem



- Developing new models of recruitment
 - Students
 - Staff
 - Researchers
 - PPI
 - Mentorship & Coaching

Clinical Academic Model
Technicians
Promoting hybrid roles
Exploring future roles in

- Diagnostics
- Rehabilitation
- AI / Digital / Genomics
- Clinical Engineering

Our students, our future workforce



 **Apprenticeships**
National Apprenticeship Week
6th to 12th February 2023

**“The university has
been very supportive,
and I really enjoyed the
teaching and content.”**

Lauren, UWE Bristol apprentice



New models of education delivery

- Changing approaches to workforce provision across the South West of England
 - Greater Social Mobility and access to education
- Regulatory changes – greater inclusion of simulation and clinical skills within an academic environment (i.e. increase in simulated practice hours mapped against programmes)
- Change in organisational workforce design (i.e. impact of NHS People Plan)
- The Topol Review – AI, Robotics, Digital literacy, Genomics, Digital Medicine – Evolution of new roles (i.e. Bioinformaticians)
- Changing student expectations / greater co-creation opportunities
- Graduate skills that are transferable and meet the needs of the NHS People Plan and Integrated Care Systems
- Skills development of staff within the organisation – currency and competency
- Impact of Covid-19 on learners and the need for holistic care for our students and tomorrow's health and social care workforce.



Simulated learning is vital within health and social care education



Public Facing Clinics – An integral aspect of any practice facing subject within an academic setting

Why Apprenticeships?



Preparing for the future needs of PSRBs, current technologies and future techniques for industry



Trailblazer Groups



Map to LEP & WECA Priorities



Responding to needs of healthcare sector (regional and national)



Widen participation in key groups



Widen Access to Higher Education



Stay Relevant & Commercial (supporting business, economy)



Diversify our Offer

Location of Top Apprenticeship Employers



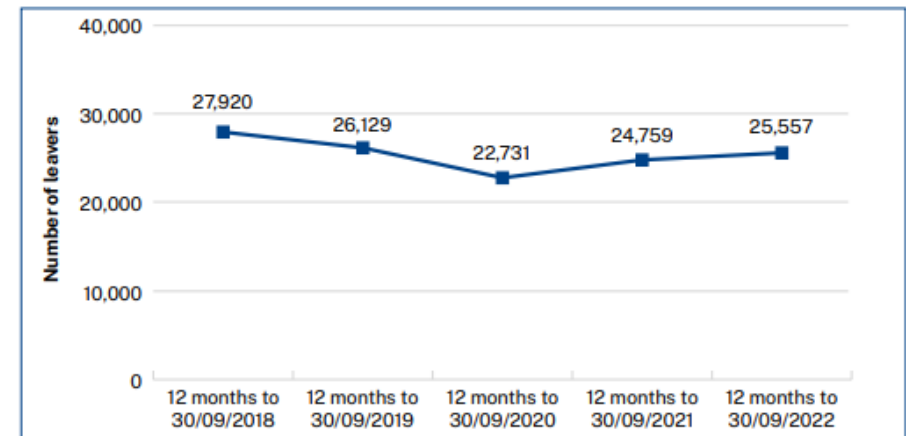
- Currently, Apprenticeships make up 13% of all student numbers in the College of Health, Science and Society.
- Our largest Apprenticeships are in:
 - TNAs (level 4)
 - Advanced Practice (level 7)
 - Occupational Therapy (level 76)
 - Professional Policing (level 6)
 - Healthcare Science (level 6)
 - Public Health Practitioner (level 6)

Current market trends – Traditional UCAS data cycle

- UCAS applications this cycle are down for key health programmes such as Nursing Degree programmes.
- UCAS accepting Apprenticeship application from 2024
- - However, the DfE is keen that as many apprenticeship vacancies as possible at all levels are advertised on the UCAS hub, meaning it will not just be degree apprenticeships advertised.
 - It comes as part of a wider ambition to develop a “one-stop-shop” for education and training options that will include apprenticeships, T Levels, skills bootcamps, higher technical qualifications or degree apprenticeships.
- Outreach work undertaken within Schools and Colleges to promote health and social care professions



Figure 1: Number of registered nurses and dual registered nurses leaving the NMC permanent register in the UK (12 months to September 2018 to 12 months to September 2022)



Source: Nursing and Midwifery Council (NMC). Registration data reports. Mid-year data report September 2022





UWE Bristol Apprenticeships • 1st

Apprenticeships at University of the West of England
9h • 🌐



On the first day of the National Apprenticeship Week 2023 it is with great pleasure that we are really proud to officially announce that we have gained a Good Grade in our recent and first full Ofsted Inspection. ...see more



Jon Newton (He/Him) • 1st

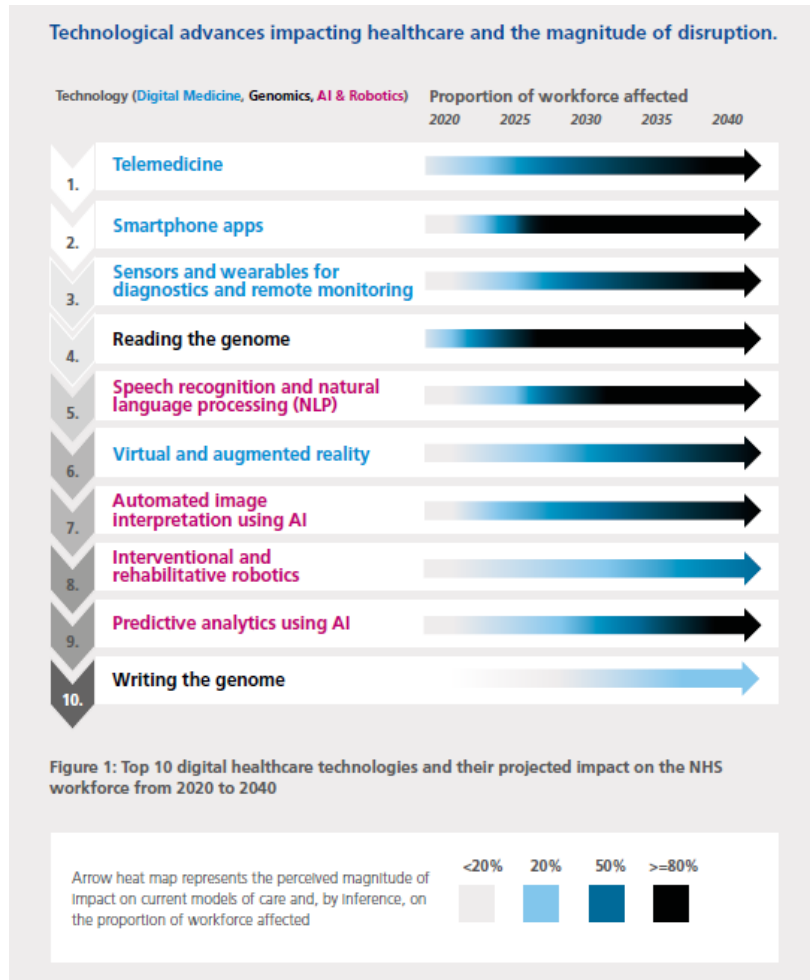
Senior Lecturer & Advanced Practitioner

1w • 🌐

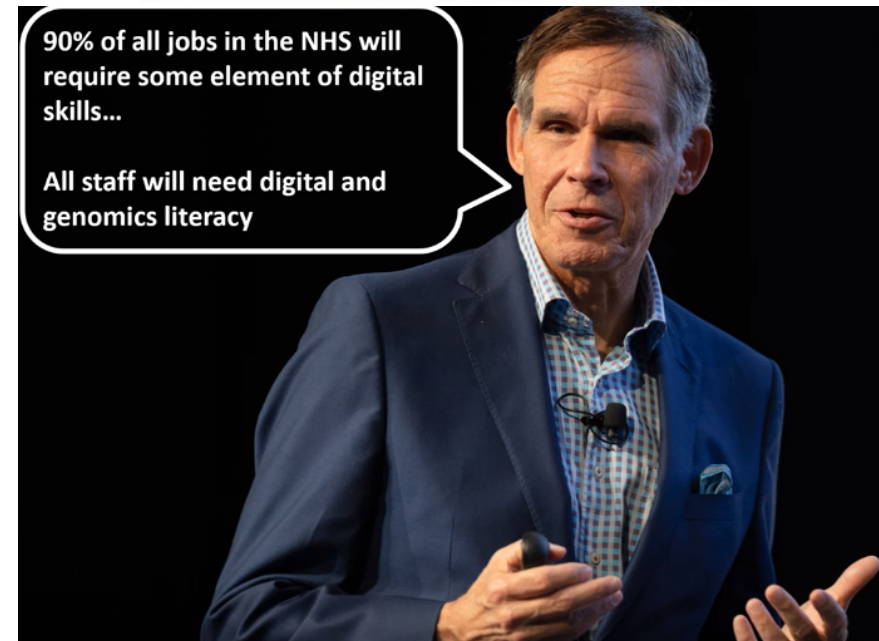
Another successful training exercise in major incident management took place at the University of the West of England yesterday; via an elaborate 'extended table-top exercise'. A complex MTA scenario unfolded requiring healthcare s ...see more



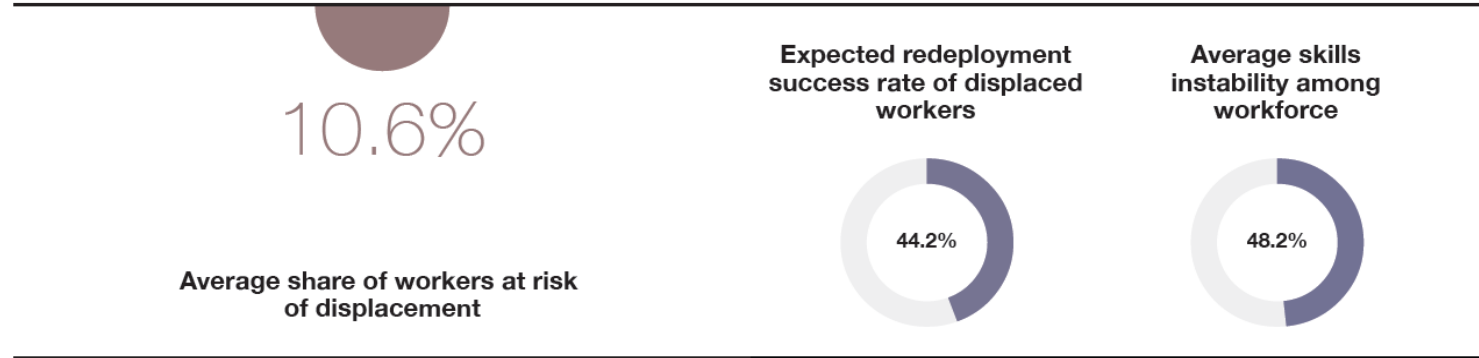
Topol Review – Skills and Knowledge



“ We have to prepare students for jobs that have not yet been created, technologies that have not yet been invented and problems that we don't yet know will arise.¹⁶”



Health and Healthcare



Emerging skills

Skills identified as being in high demand within their organization, ordered by frequency

1.	Active learning and learning strategies
2.	Emotional intelligence
3.	Creativity, originality and initiative
4.	Leadership and social influence
5.	Resilience, stress tolerance and flexibility
6.	Reasoning, problem-solving and ideation
7.	Service orientation
8.	Complex problem-solving
9.	Troubleshooting and user experience
10.	Persuasion and negotiation
11.	Technology use, monitoring and control
12.	Technology design and programming
13.	Quality control and safety awareness
14.	Critical thinking and analysis
15.	Coordination and time management

Technology adoption in industry

Share of companies surveyed

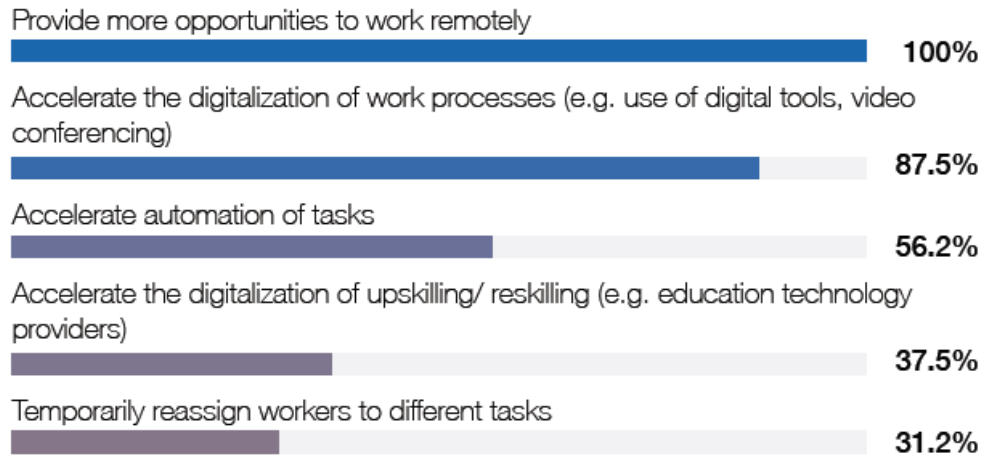
Internet of things and connected devices	95%
Big data analytics	89%
Artificial intelligence (e.g. machine learning, neural networks, NLP)	89%
Text, image and voice processing	88%
Encryption and cyber security	84%
Cloud computing	84%
E-commerce and digital trade	78%
Distributed ledger technology (e.g. blockchain)	72%
Augmented and virtual reality	67%
3D and 4D printing and modelling	65%

Health and Healthcare



Impact of COVID-19 on companies' strategy

Share of companies surveyed looking to adopt this strategy as a result of COVID-19



Augmentation of key job tasks by 2024

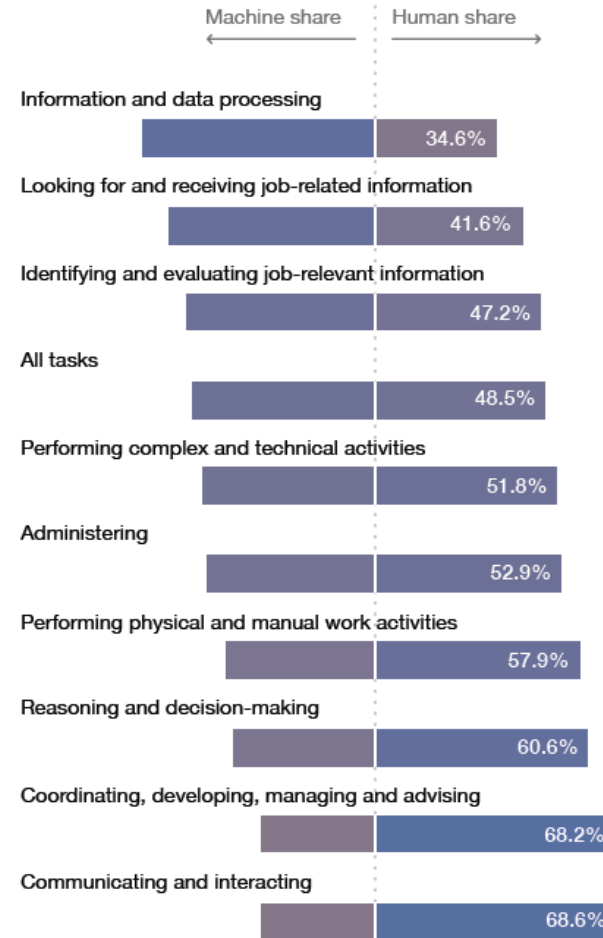
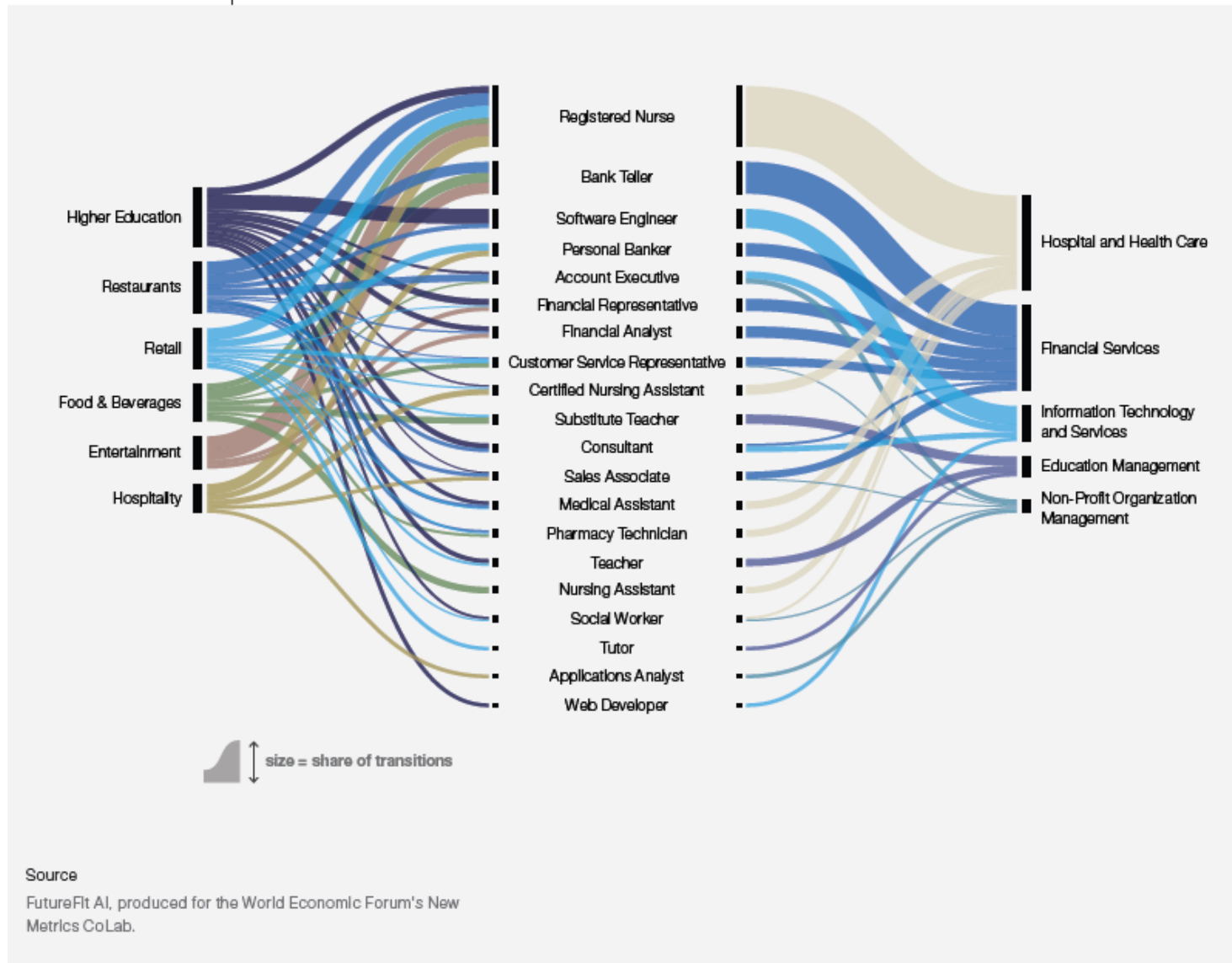


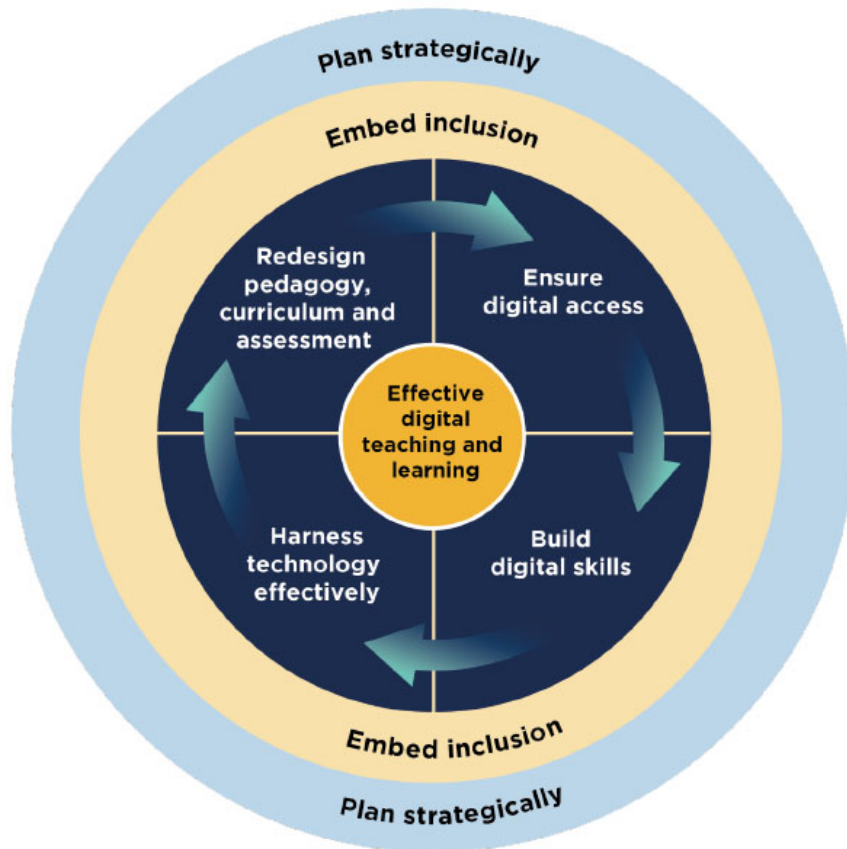
FIGURE 17

In-focus transitions for affected young workers



Curricula Redesign | working in partnership

Figure 5: The six components of successful digital teaching and learning



Curricula changes – Paramedic Science

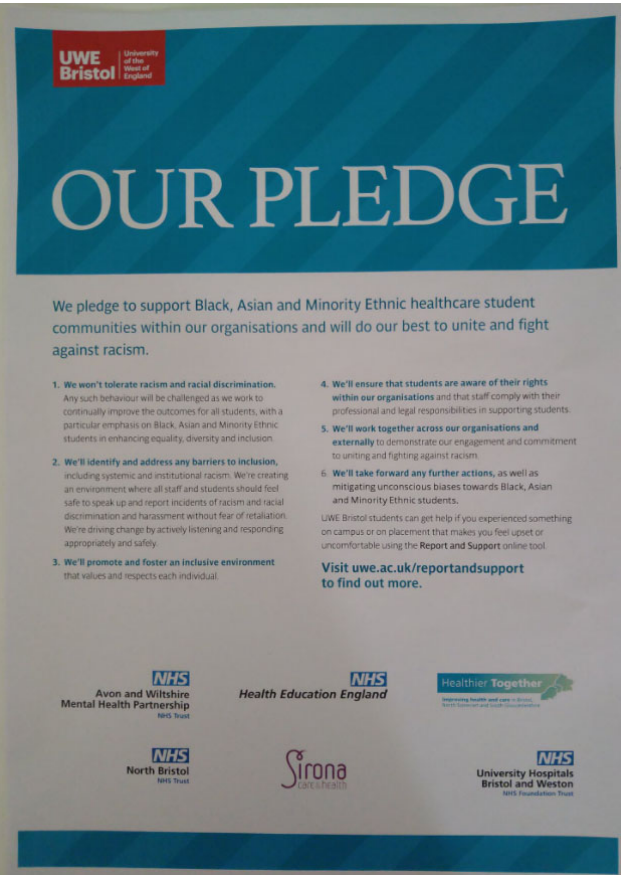


Blended approach to on site and virtual assessments

Physical environments –
Core competencies and skills assessments



Wellbeing, Equality, Diversity & Inclusivity

OUR PLEDGE

We pledge to support Black, Asian and Minority Ethnic healthcare student communities within our organisations and will do our best to unite and fight against racism.

- We won't tolerate racism and racial discrimination.** Any such behaviour will be challenged as we work to continually improve the outcomes for all students, with a particular emphasis on Black, Asian and Minority Ethnic students in enhancing equality, diversity and inclusion.
- We'll identify and address any barriers to inclusion,** including systemic and institutional racism. We're creating an environment where all staff and students should feel safe to speak up and report incidents of racism and racial discrimination and harassment without fear of retaliation. We're driving change by actively listening and responding appropriately and safely.
- We'll promote and foster an inclusive environment** that values and respects each individual.
- We'll ensure that students are aware of their rights within our organisations** and that staff comply with their professional and legal responsibilities in supporting students.
- We'll work together across our organisations and externally** to demonstrate our engagement and commitment to uniting and fighting against racism.
- We'll take forward any further actions,** as well as mitigating unconscious biases towards Black, Asian and Minority Ethnic students.

UWE Bristol students can get help if you experienced something on campus or on placement that makes you feel upset or uncomfortable using the **Report and Support** online tool.

Visit uwe.ac.uk/reportandsupport to find out more.

Logos: NHS Avon and Wiltshire Mental Health Partnership, NHS Health Education England, Healthier Together, NHS North Bristol, Sirona, NHS University Hospitals Bristol and Weston.

- Mental health support for students
- Embracing diversity in student applications / recruitment to health and social care programmes.
- Supporting students on placement is equally as important as the academic environment
- Duty of care for students
- Supporting wellbeing and promoting Speak Up / whistle blowing

Supporting a diverse workforce | Technicians

- Emerging roles with the university environment to support learning through simulation
- Disrupting the traditional delivery methods of learning and assessment
- Co-creating new approaches to pedagogy and assessment
- Greater skills mix and career development
- Shaping the '*hybrid workforce*'
- Digital learning and design Technologists



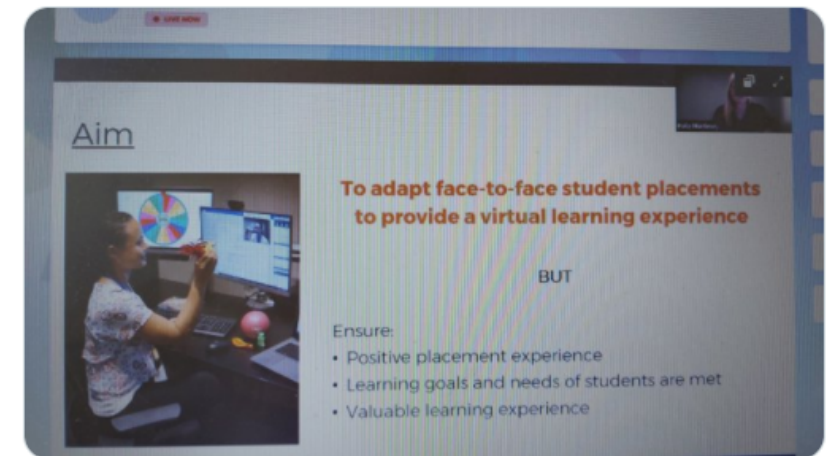
Supporting Students in Clinical Practice | Working together

- Virtual assessments / tutor visits
- This has changed our approach to how we support our students and clinical colleagues
- Collaborative Learning in Practice (CLiP) via Remote working
- Mental wellbeing and resilience training
- Virtual placements and assessment of skills:



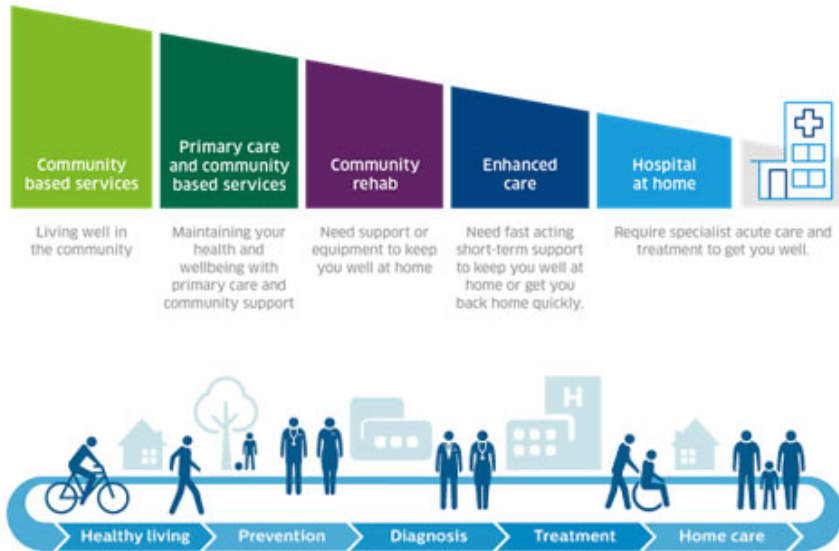
Caroline Mills @CarolineMillsOT · Jun 24

Adapting traditional [#OccupationalTherapy](#) placements to be **virtual**. Innovative ways to cope with [#COVID19](#). Students passed and found the placement beneficial. Holly Mortimer [#OTAUS2021](#)

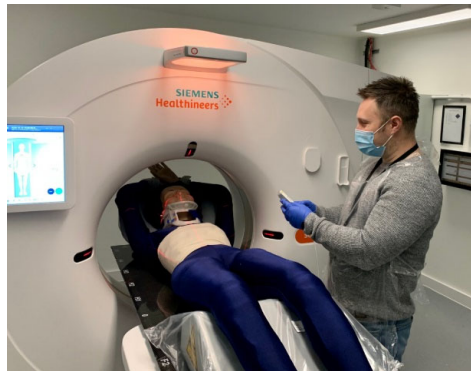


The Connected Campus – 2.0

- Creating physical and digital spaces that provide access to simulation and clinical skills has become integral within health and social care.
- Constraints on the availability of physical placements within practice, coupled with the experiences of Covid-19.
- Having a ‘*connected campus*’ that creates the required conditions for professional growth, development and key graduate outcomes is vital.
- Connections with remote / regional sites will be vital as long arm supervision becomes more embedded.

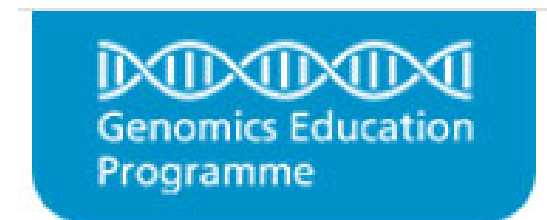


Diagnostics & rehabilitation



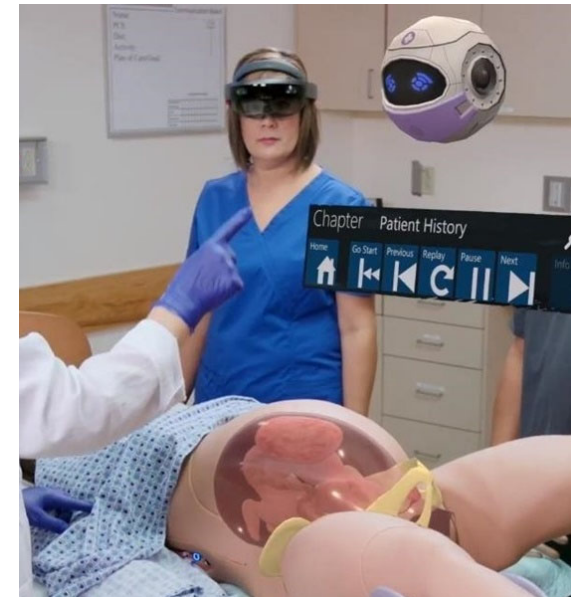
Co-created Organisational Development

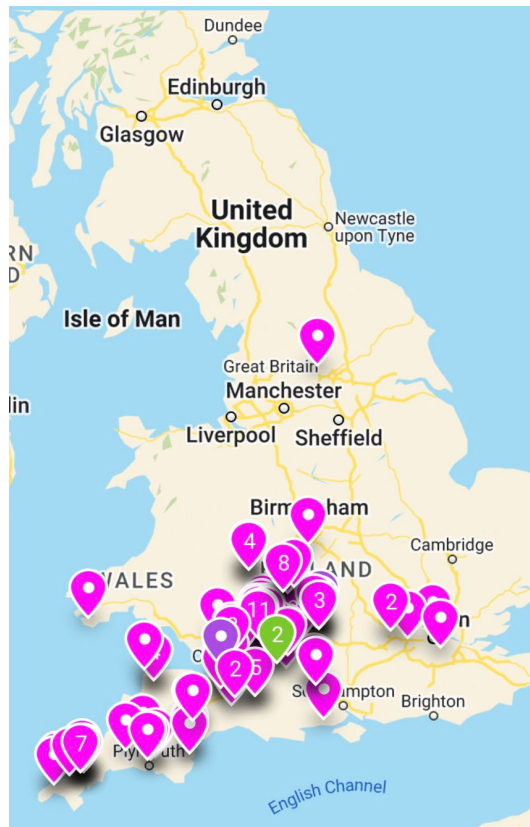
- Developing an open and inclusive culture – Test and improve approach
- Create a culture of life long learning & openness to collaboration and co-creation
- Understanding human intelligence and artificial intelligence
- Utilising the full potential of the Institute of Technologies across the South West
- Creating truly integrated patient facing clinics across programmes / AQP status
- Ensure ethical considerations are factored into any digital provision
- Mapping future micro-credential learning / specialism learning / generalist learning
 - HEE Genomics Education Programme
 - Independent Prescribing Programme
- Bringing the regulators / professional bodies with us
- Tapping into the wider STEAM agenda



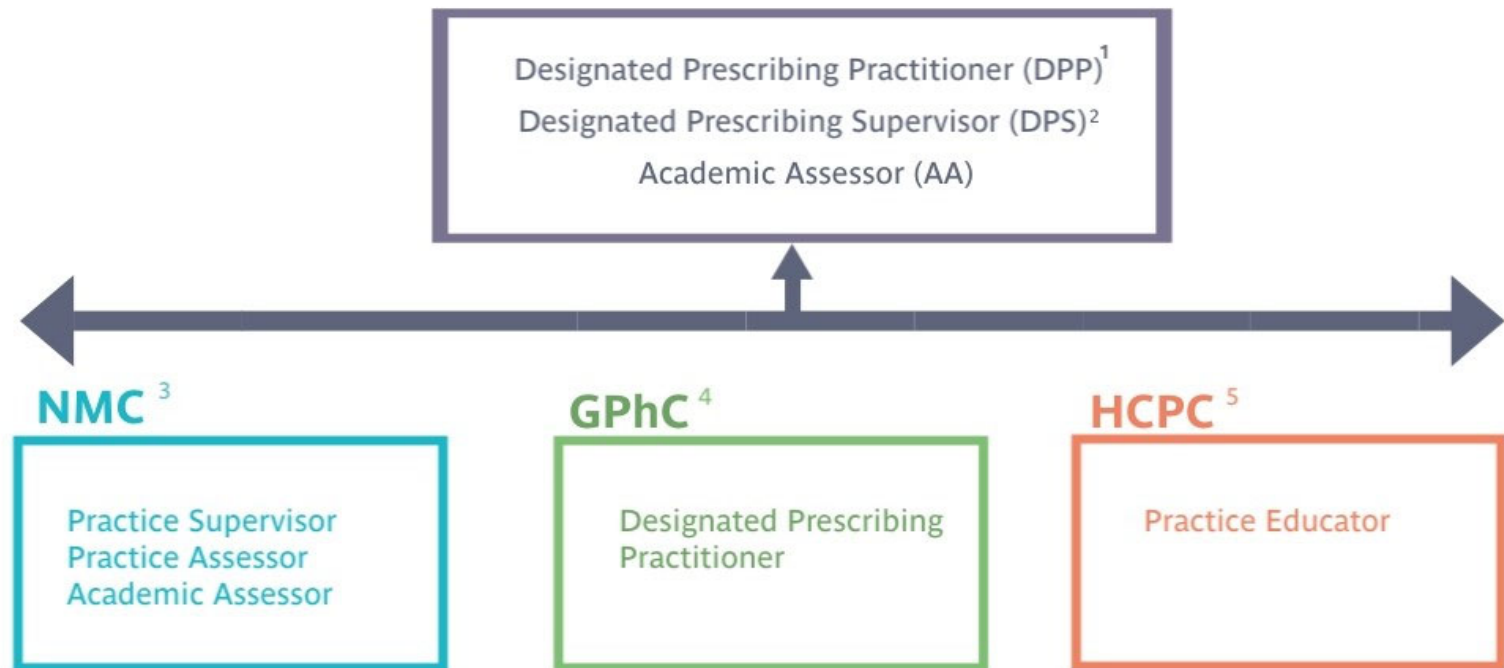
The on-going journey

- Continuing the journey of ensuring our simulation environments are diverse, inclusive and reflect society
- Skills development for staff and ensuring we are reflective of modern practice
- Augmented reality and virtual reality – Immersive environments / 360 degrees
- Self-assessment of our pedagogy and assessment approaches
- Involvement in quality improvement programmes working with NHS colleagues
- Re-mapping the involvement of standardised patients
- Closer work with organisations such as the Associate for Simulated Practice in Healthcare
- Championing the value of simulated learning and local provision through IoTs, FE partners, HEIs, Employers / Systems
- Pushing boundaries to create new workforce models
 - Medical Degree Apprenticeship





Independent Prescribing
Delivering a consistent approach to all professional groups



- 1 Royal Pharmaceutical Society (2019) A competency framework for designated prescribing practitioners
- 2 Independent Prescribing Team; University of the West of England, Bristol
- 3 General Pharmaceutical Council (2019) Standards for the education and training of pharmacist independent prescribers
- 4 Nursing and Midwifery Council (2019) Standards for Prescribing Programmes
- 5 Health and Care Professions Council (2019) Standards for Prescribing

Practice orientated clinics | Optometry



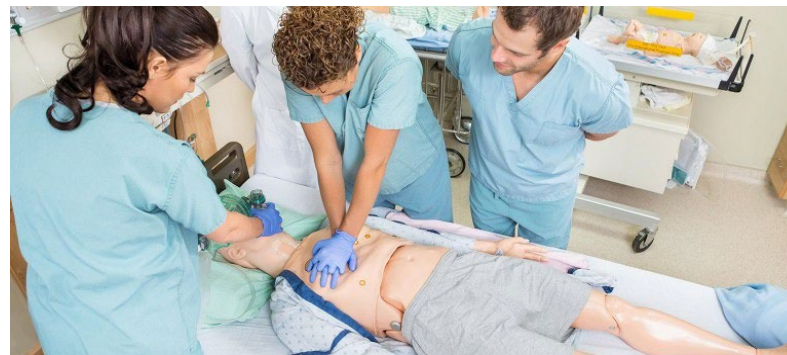
Education, Research, Innovation, Leadership & Collaboration

Delivery by design | Bringing everyone on-board



What did we learn as a region from working together in a truly collaboratively way during the Covid-19 Pandemic?

Who are our partners today and tomorrow?



Where does the tech innovation happen across the region in reference to health & social care?

Creating an Integrated Care Academy

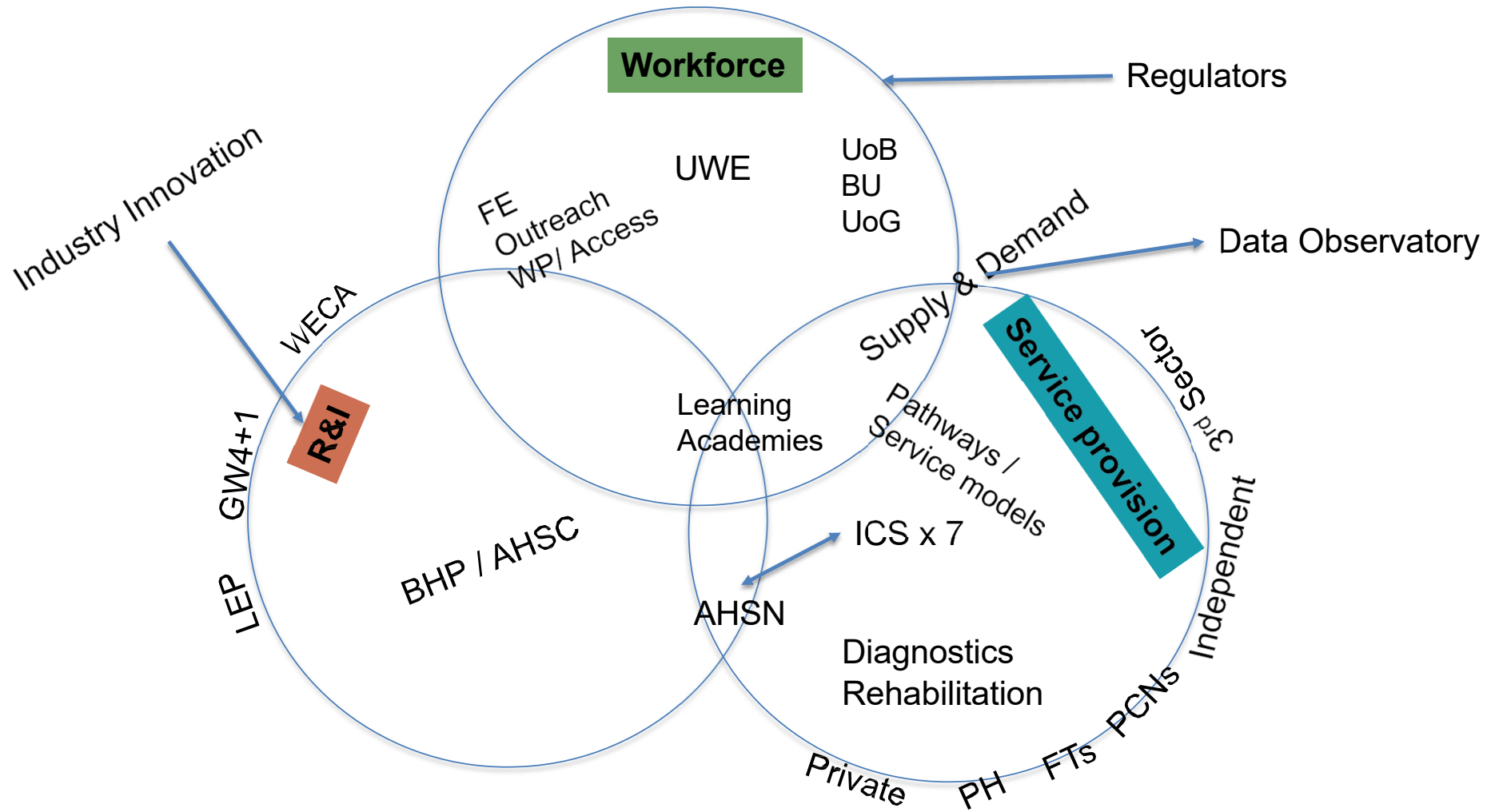


Creating the patient journey through:

- i. Collaborative education models
- ii. Contemporary placement models
- iii. Innovative approaches to workforce mapping
- iv. Innovation and research

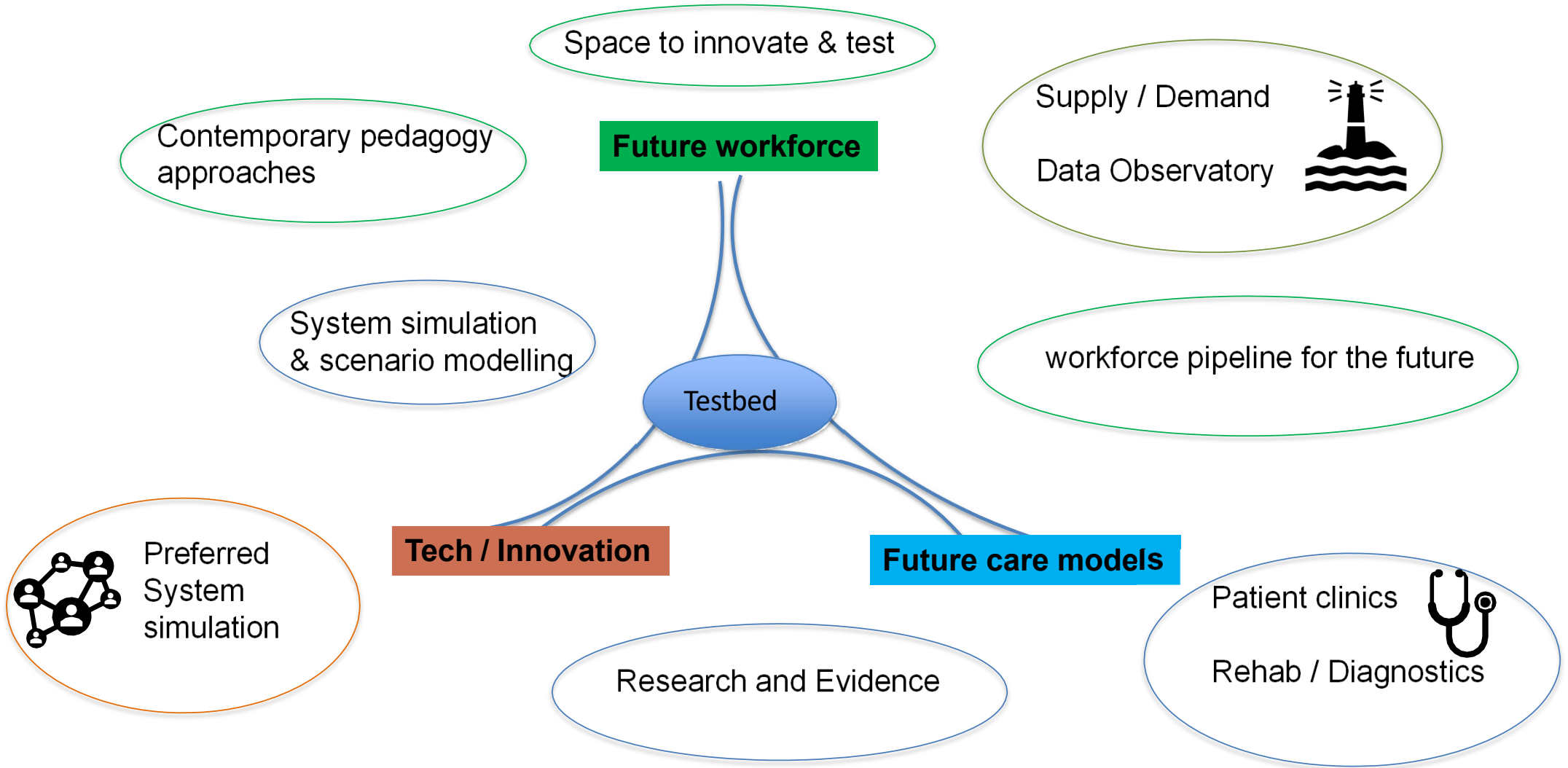
How do we use AI / Robotics / Diagnostics to help shape the above?

An integrated model for Health and Social Care education



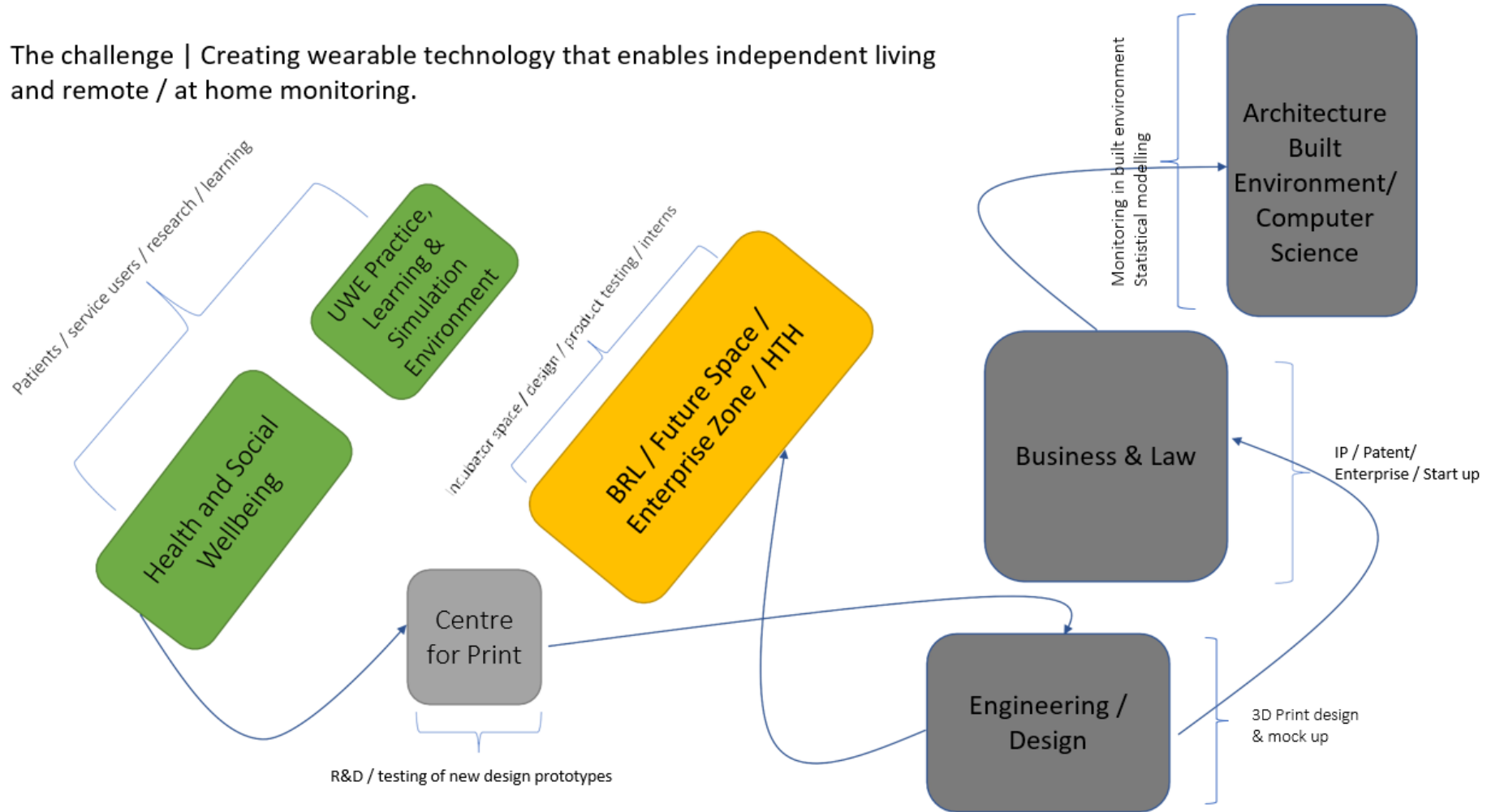
International connection / Beacons

The core principles of an Integrated Care Academy



Utilising the combined value of the whole Health and Social Care Eco-System

The challenge | Creating wearable technology that enables independent living and remote / at home monitoring.



Health Technology Hub

Creating opportunities for businesses, universities and the healthcare sector to work together to solve the demanding problems faced by the healthcare sector in the UK and globally.



Osteoarthritis Research

Research

- Development a rehabilitation program for patients with osteoarthritis
- Collaborators: St George's University of London, healthcare professionals

Impact

- The programme was awarded the Musculoskeletal Care Initiative of the Year in the Health Service Value Awards 2020
- The programme is recommended by national and international healthcare and clinical services
- Improving patient's pain, function and quality of life
- Reducing health and social care cost



Caring for Craniofacial Conditions

- **Research**

- Understanding the concerns and needs of the patients with craniofacial conditions
- Collaboration with the UK Charity CLAPA and healthcare professionals
- Leading collaboration with cleft professionals practice in 26 countries

Impact

- Recommendations on the approaches to reduce the risk of social anxiety, social withdrawal behaviour and unfavourable psychological outcomes
- Change in patient care
- Training of 500 health professionals
- Influencing prenatal and adult health and social care services in the Netherlands



Alzheimer's disease

Research

- Understanding of the mechanisms of Alzheimer's disease
- Collaboration with Bristol's Southmead Hospital and the regional charity BRACE with the patients and public involvement

Impact

- Identifying blood biomarkers for the Alzheimer's disease and dementia
- Early diagnostic tool for improving patients outcome is under development



Biofilm Model Systems in Healthcare

Research

- Development of novel technologies for measuring the microbial growth
- Application to wound healing and dental care
- Collaboration with Colgate-Palmolive, Philips Research Laboratories Givaudan, Aryballe, GEMAG Care, Insense LTD, NHS partners

Impact

- New products for dental care and wound healing
- Development of non invasive detection of diabetic foot ulcers and periodontal disease Tailored CPD courses on breath analysis
- Integrating the research in undergraduate and post-graduate teaching and students' projects



Safer Drugs

- **Research**
 - UWE pioneering work on creating drugs for conditions resistant to regular antibiotics
 - Collaboration with GlaxoSmithKline and the NHS
 - AI and Machine Learning were integral to this research

- **Impact**
 - The research is rated as 'world leading' in the REF2021
 - The new technology for improving drug formulation to overcome antibiotics resistance

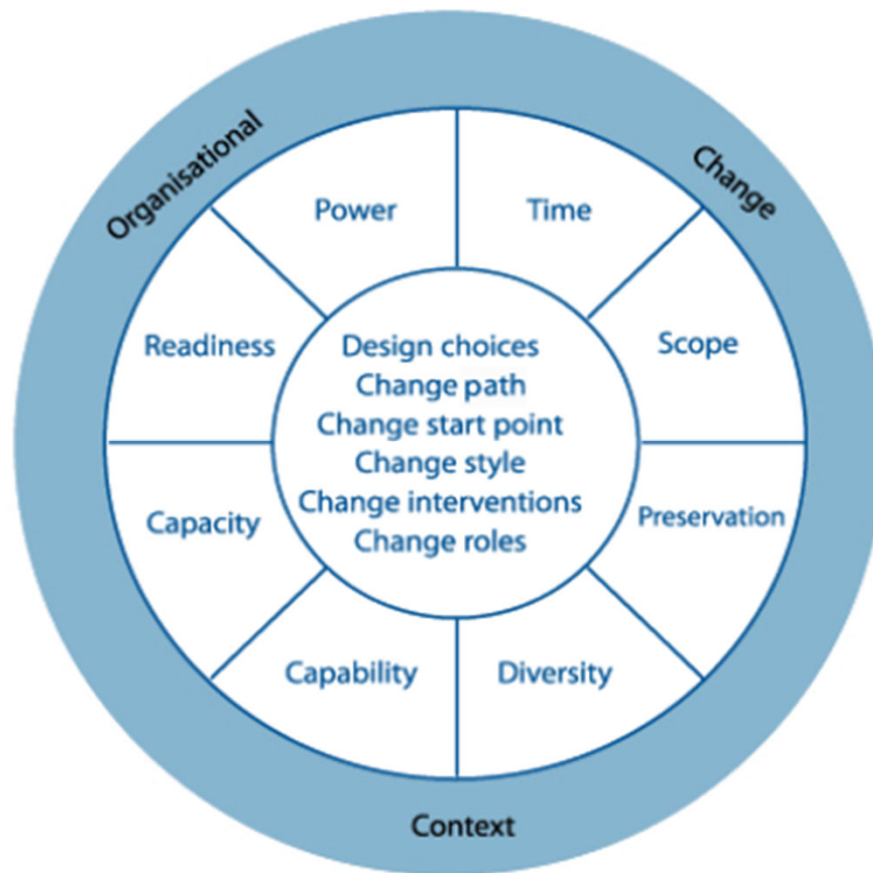


Allied Health Professionals

Careers in academia and leadership



A model for change | collaborative working



Balogun et al (2016)

