UKIO 2024

Professor Marc Griffiths

Pro-Vice Chancellor for Health

Vice Chancellor's Office

Stanley Melville Memorial Lecture: Footsteps for our future - societal impact

10th June 2024

Areas covered in this presentation:

- Potential opportunities, challenges and innovation spaces for Radiographers

  (Therapeutic Radiographers and Diagnostic Radiographers)

- Bring in elements of my professional journey over the last three decades

- Ask some questions and gain your insights through the use of Mentimeter **(Code 7728 2496)**

The impact of Technology on our profession & education

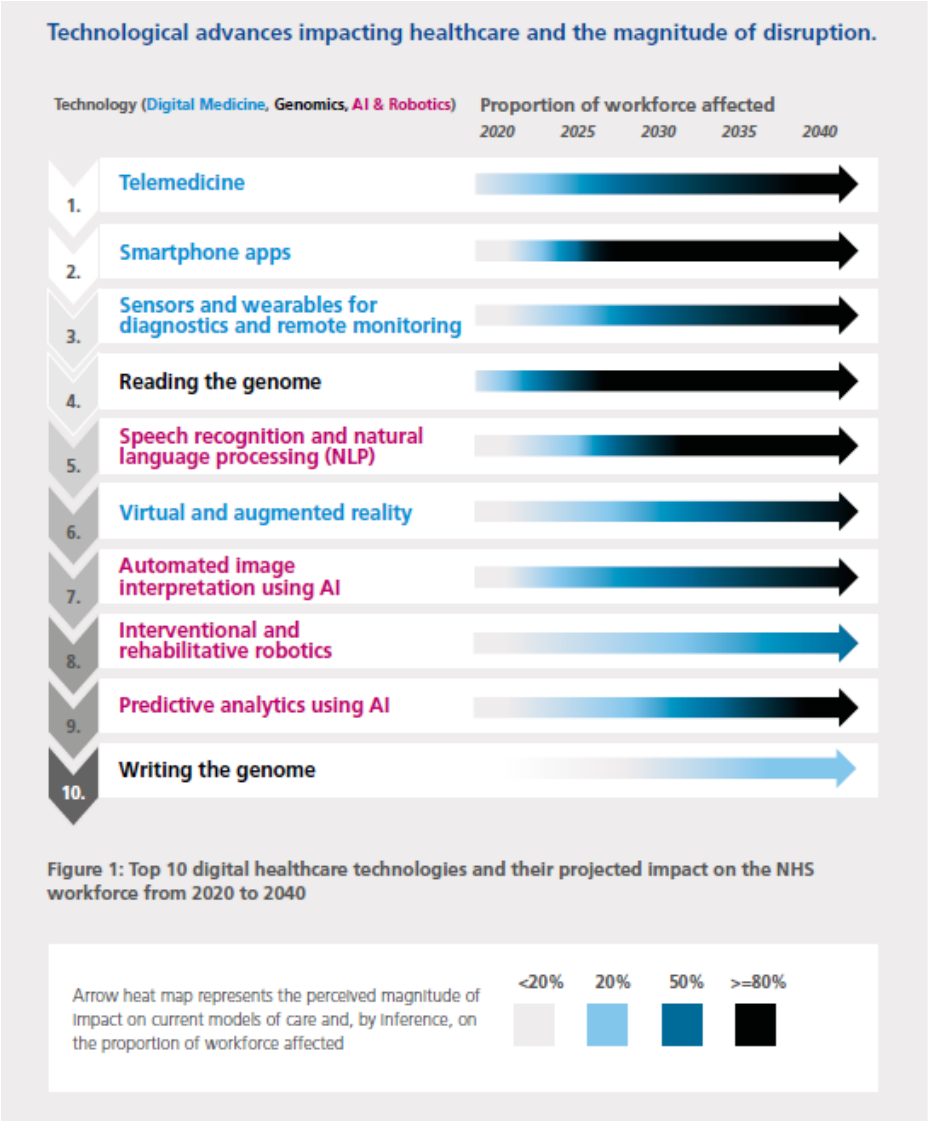
Potential future roles that Radiographers could shape / lead

Leadership, Research & values within our profession

Third Space working & relationships

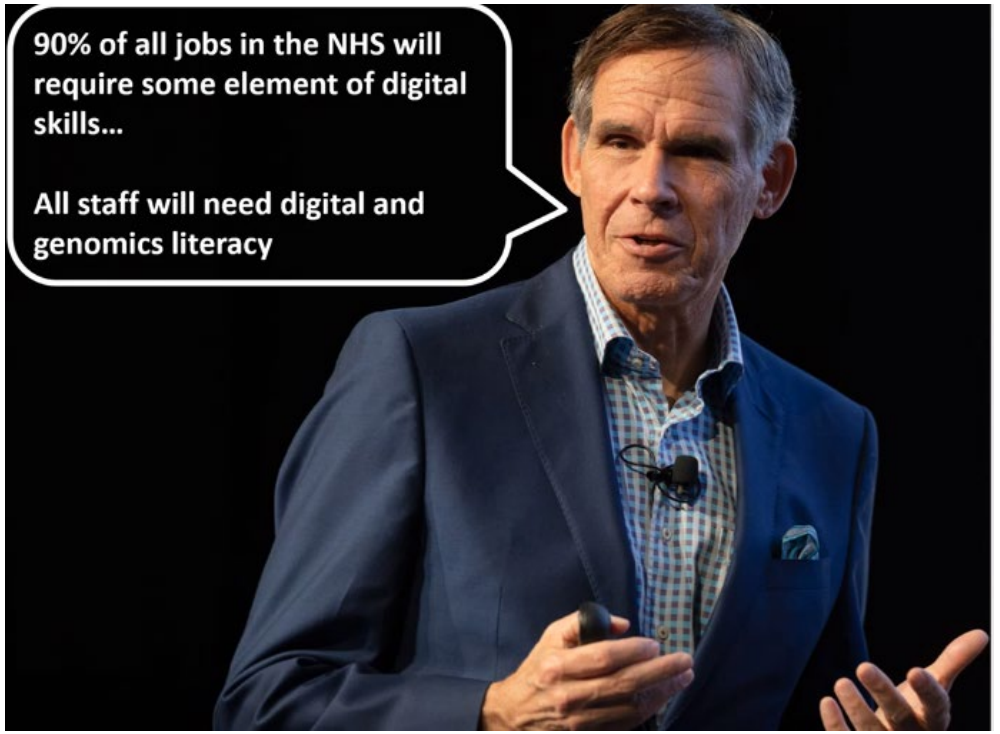
The impact of Technology on our profession & education

Topol Review | Knowledge & Skills



Topol Review (2019)

> 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]"

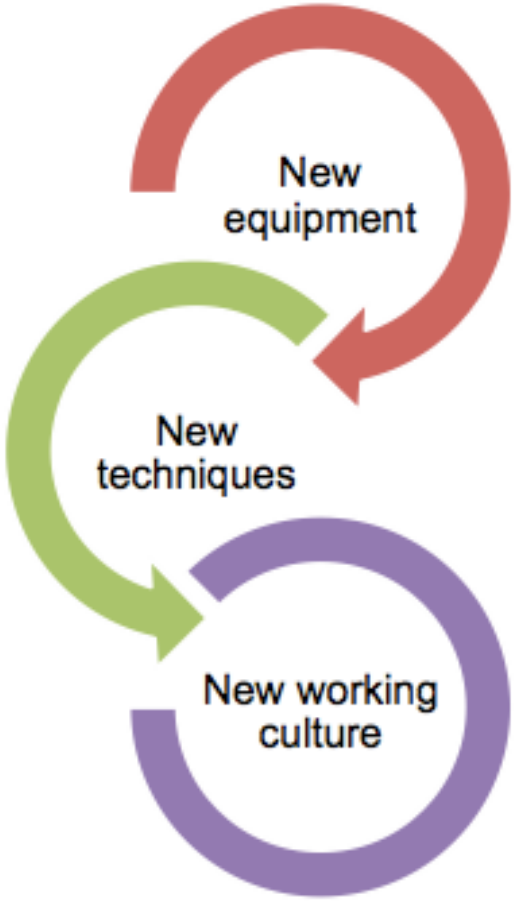


Our duty | Code of Technological Conduct

- New technologies can be developed to increase levels of skill, or they can be used to diminish them.
- Choices have to be made, through informed decision-making and an expert understanding of technologies.
- Radiographers have an important role to play in the future technological determinism of our profession.
- Choices/ways of working all emerge in our environments where the intentions and relative power of people are typically the most important determinants of technological change and the consequences for the health professional and patients.
- Relationships relating to physical technology may be clearer compared with software / Artificial Intelligence (AI) based technology.

Creating new working cultures

- How will new knowledge be created going forward, using AI to shape an evolving relationship that promotes co-intelligence across health and social care?
- The introduction of new technology requires appropriate staff training, considerations for service redesign and potential changes to patient workflow dynamics.
- Staffing modern Imaging / Radiotherapy environments requires a skilled and competent workforce and an opportunity to further develop working practices and clinical service provision.

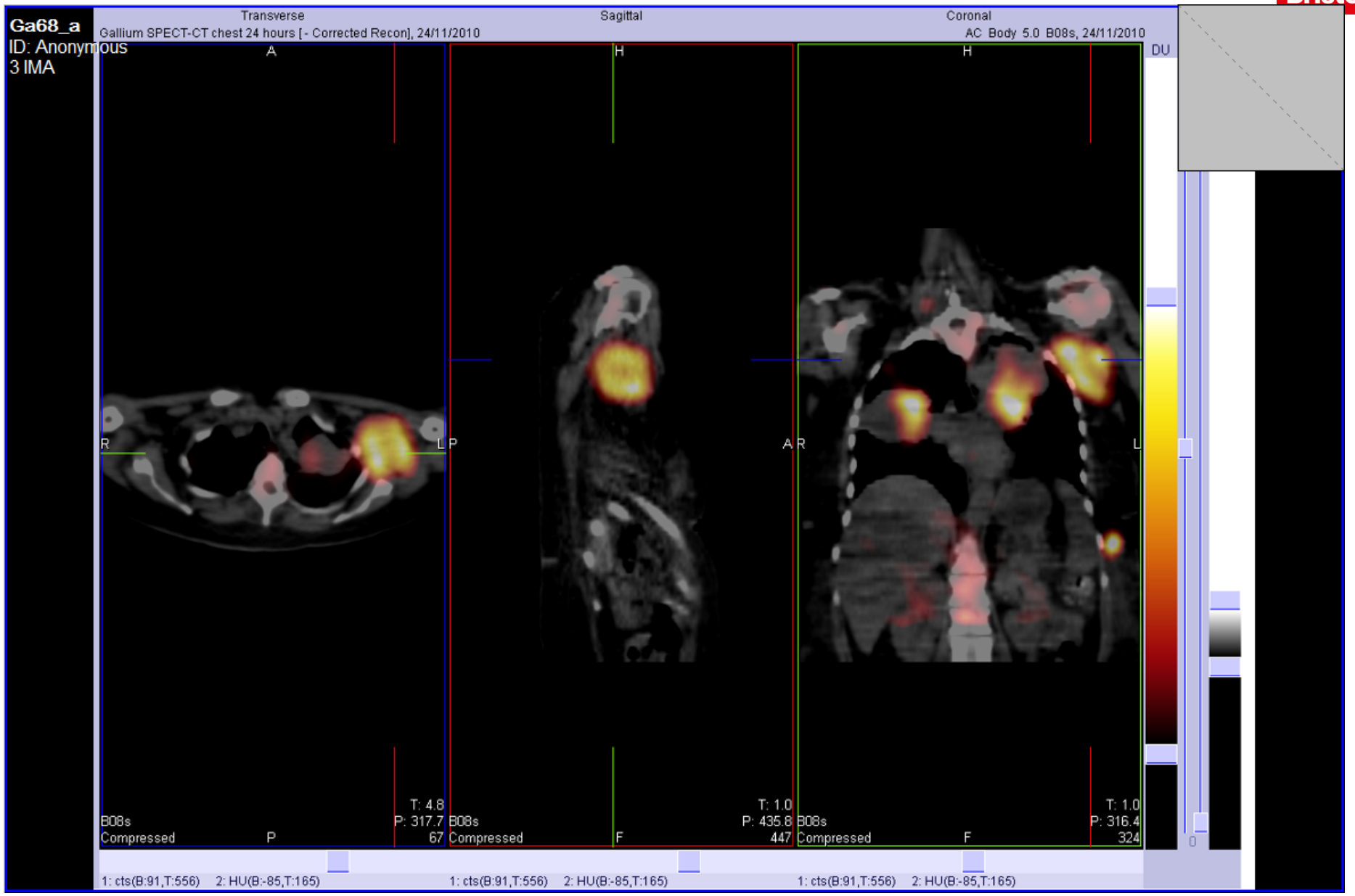


Interview quote| Automation

'There are other tasks that, all of a sudden, now you're trusting these computers to do this activity. You have to almost go through and double check their workings out and then the actual technological skill involved in the computer knowledge has had to increase exponentially.'

Professional Doctorate (2014)

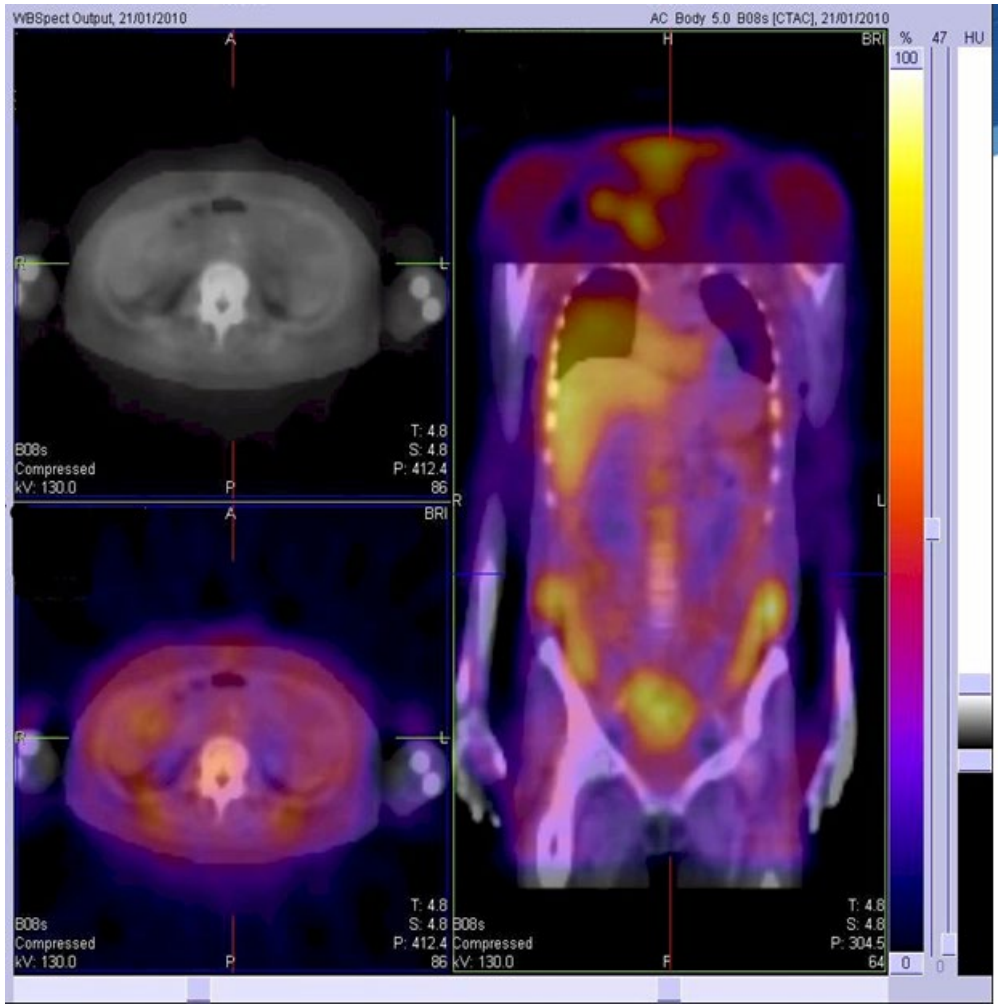
Hugo van der Goes (1479)



Mis-registration of SPECT and CT data sets

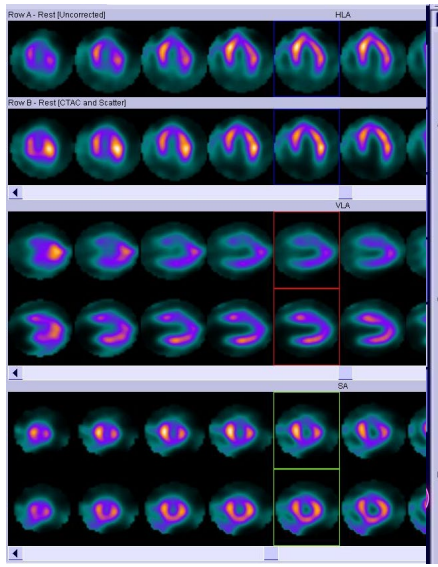
Problem solving abilities – Core competencies

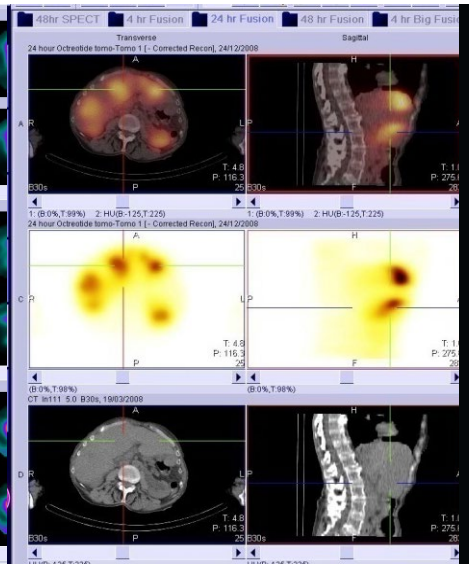
- Creating appropriate experiential learning approaches
- Pattern recognition
  - Imaging with new radioisotopes
- Decision-making capabilities
- Autonomous practice vs critical evaluation techniques
- Critical evaluation of working practice

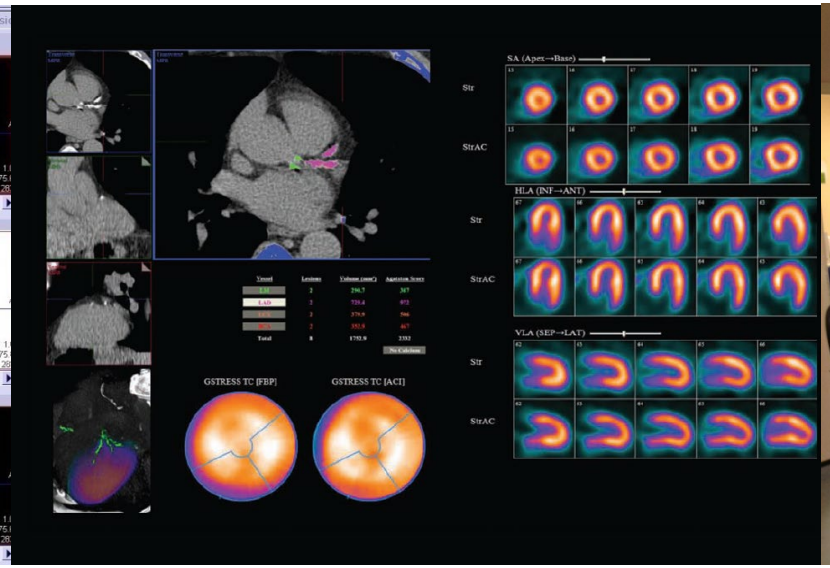


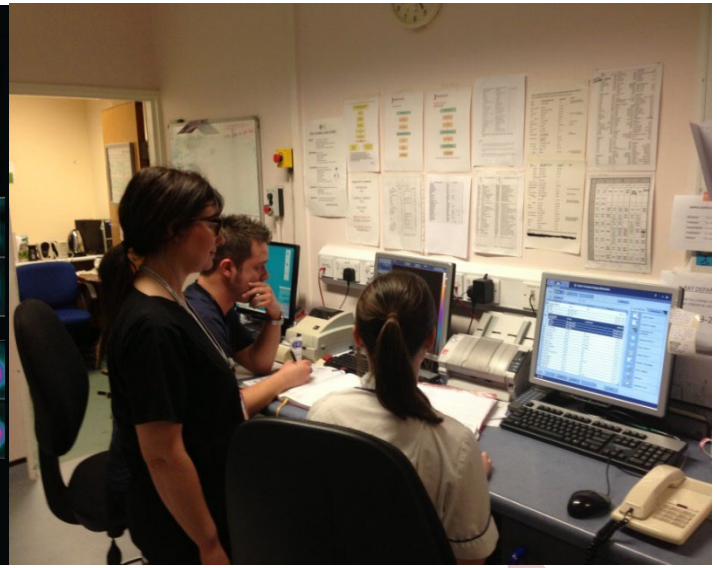
Mis-registration of SPECT and CT data sets

Evolution of Nuclear Medicine / hybrid imaging – Creating opportunities / risks



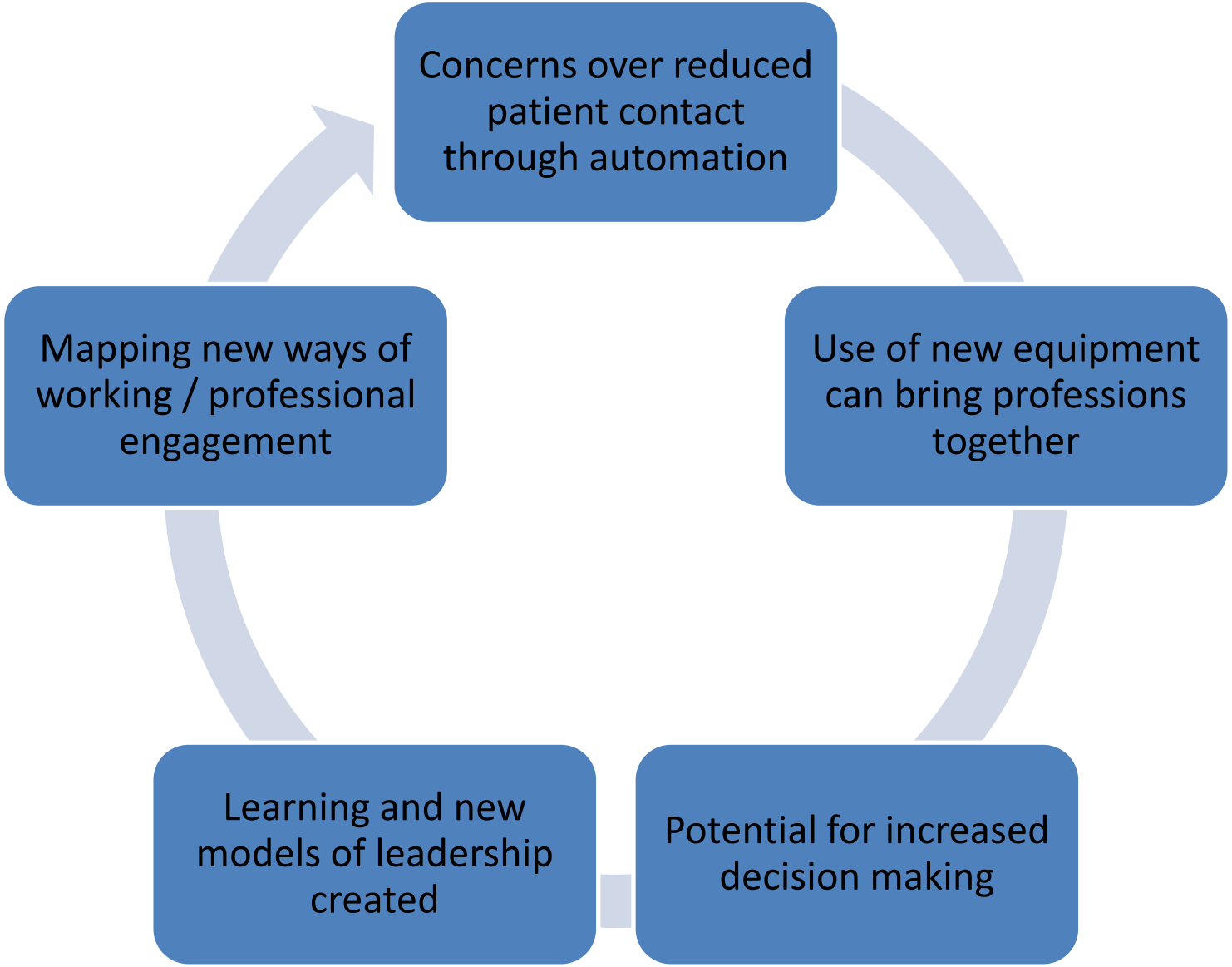




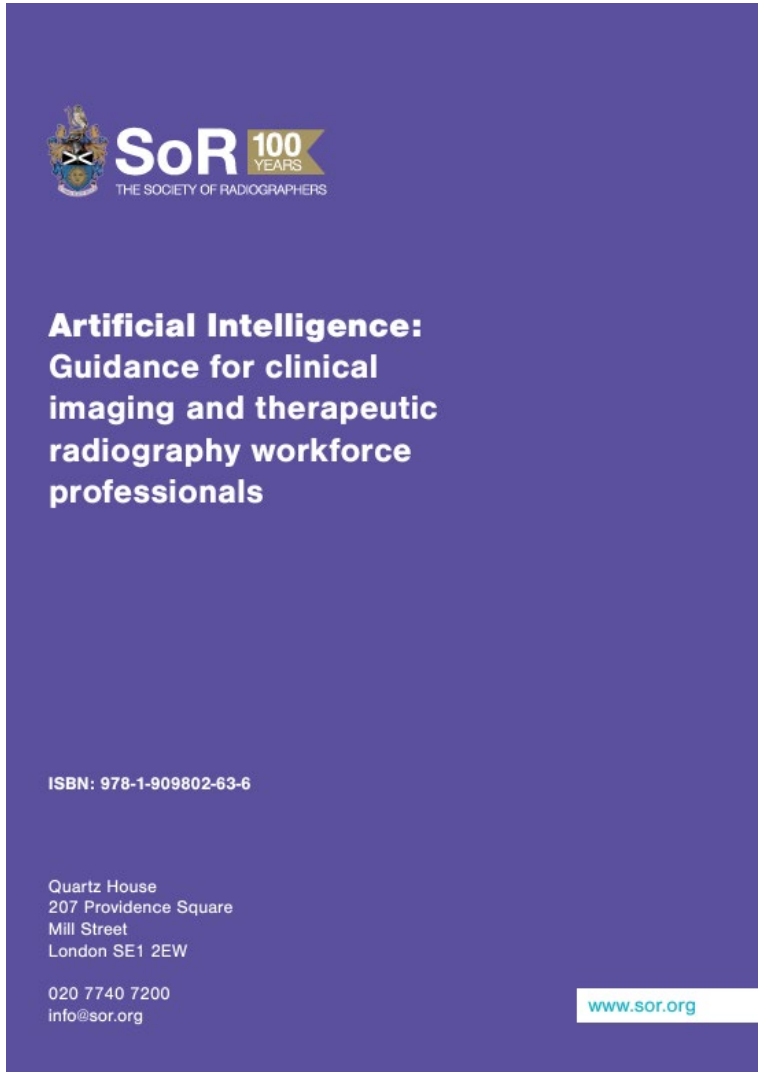


- Standard Attenuation Correction
- Localisation
- Diagnostic provision / one stop service
- MDT & Patient Pathway involvement
- AI / Automation

Road to change: Impact of hybrid imaging technology



AI and Radiography / Radiotherapy practice

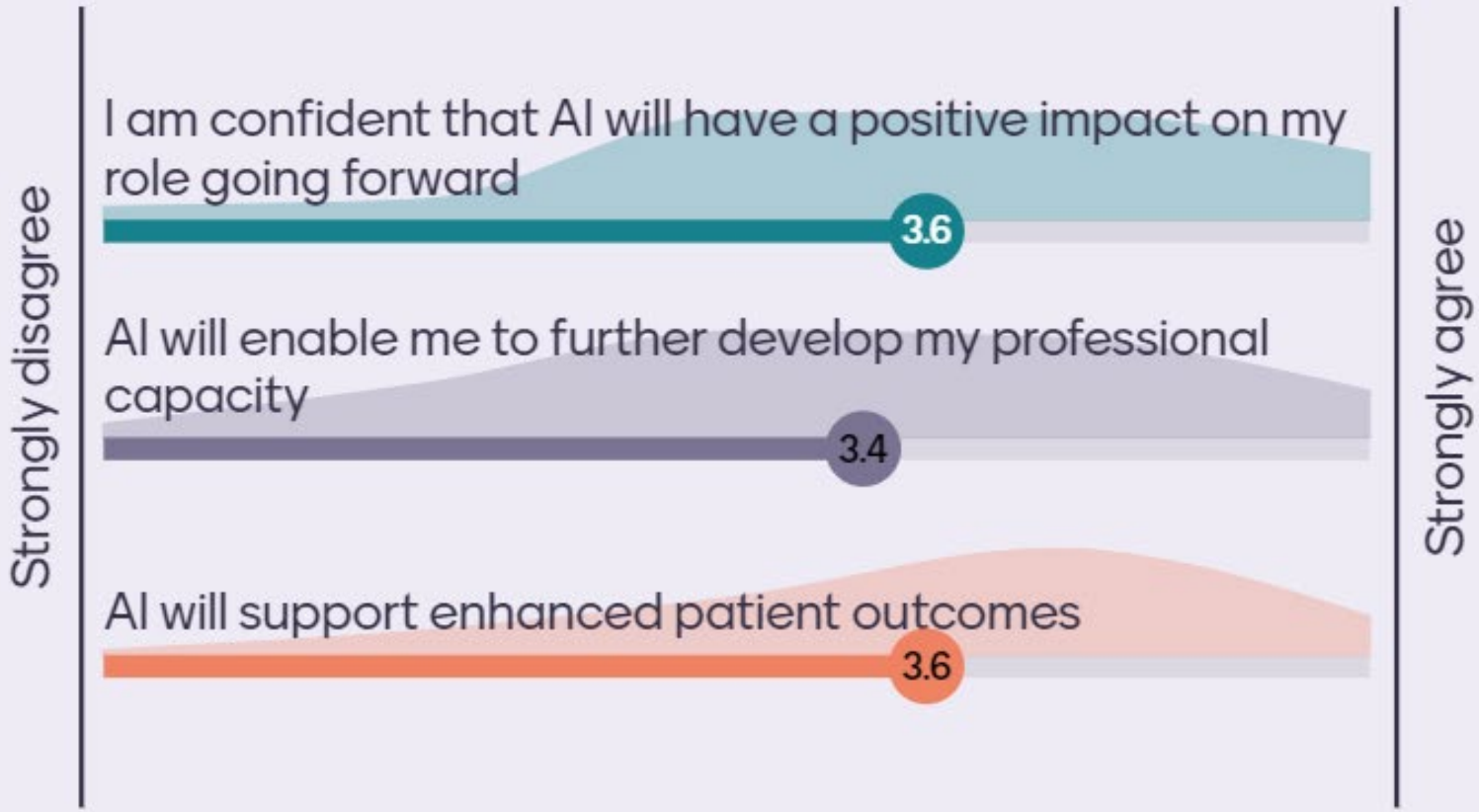


- AI tools are being used to shape practice and academic publications (Malamateniou et al, 2021)
- How can Large Language Models (LLMs) be used to create new knowledge and understanding?
- What will the future roles look like?
  - *Radiographer Reporting*
  - *Decision- and ethics-based algorithms*
  - *Education and skills development (SoR, 2021)*
  - *Coding and patient pathways/treatment plans (Parkinson et al, 2021)*
  - *Radiotherapy Planning/patient safety*
- What impact will AI and AGI have on the future design of General Purpose Technologies (i.e. CT / MRI)?
- How will learning and experience be validated and what is the impact on core skills (Currie et al, 2024)
- Regulation of AI is also needed and includes patient-based advocacy (Ryan et al, 2021)

Join at menti.com | use code 7728 2496

UWE Bristol | University of the West of England

Using AI in my professional capacity

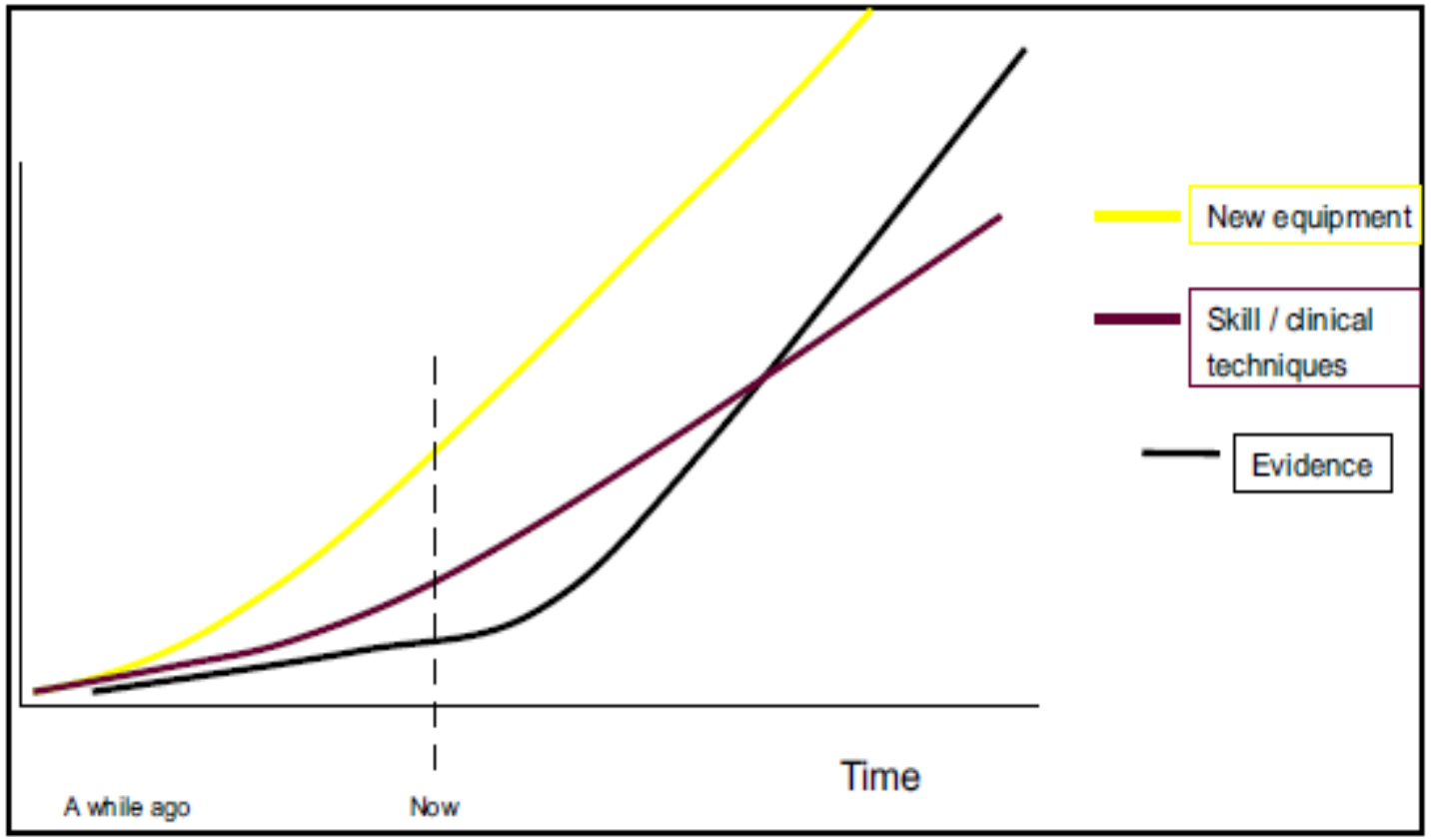


31 48

The co-intelligence era & Health Professionals

- Utilising AI to create new knowledge, roles and outcomes can create opportunities and accelerate our understanding as health professionals.
- The use of sophisticated tools such as the attention mechanism (LLM) to predict and recognise patterns, structure and context could be useful.
- What is the reliability of the sources of evidence and risk of AI '*hallucinations*' (Mollick, 2024)?
- What about inbuilt bias and potential for anthropomorphism and building a relationship with AI (Mollick, 2024)?
- How is validation of data performed and by whom?
- Guiding principles of AI (CoR, 2020)
  - *1) To influence and direct improvements which can be made by implementing new technology in healthcare, locally, nationally, and internationally.*
  - *2) To promote safe and ethical practice that will enable better patient and service user outcomes.*
- Connecting Healthcare with wider sectors including:
  - *Computer Science / Population Health Data / Health inequalities*
  - *Creative and digital industries*

Cultural Lag | Ensuring we keep pace with new technologies



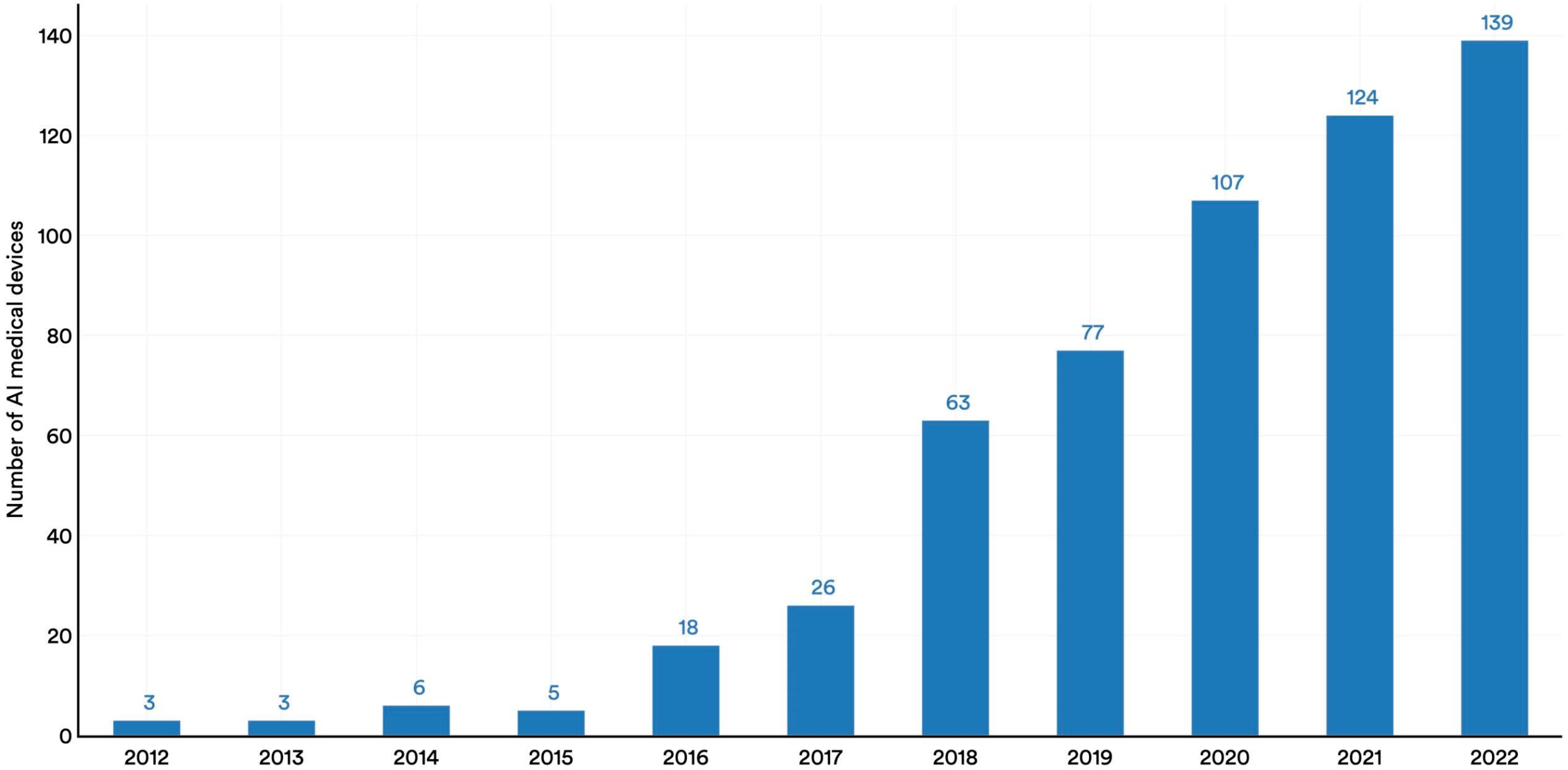
Hogg, 2012

- The use of simulation / simulated learning within education/assessment and practice is important. (Hazel et al, 2020)
- Creating curricula with appropriate levels of simulation / simulated learning is key to professional development and can reinforce learning and help develop confidence.
- Developing new technologies to help with learning in practice is equally as important in the University environment.
- Ensuring we remain current as a workforce to be able to develop curricula / assessment frameworks and competences is key

The use of simulation in enhancing pre-registration education and training of therapeutic radiographers – CoR, 2022

Number of AI medical devices approved by the FDA, 2012–22

Source: FDA, 2023 | Chart: 2024 AI Index report



Stanford University, 2024

Mentimeter – Question #2

With Technological Advancements within our Profession, where can we continue to add value for patients, teams & our Professional development?

41 of 57 responded • 41 responses

Compassion	Greater diagnostic accuracy	Care
More time for patients	Assurance of diagnosis	More time face to face
Faster diagnosis	Increased patients going through the pathway	More time for patient care.
Empathy	Enabling patients to access care, receive diagnosis and treatment faster	Caring Human touch
Support care across pathways of care Personalised compassionate		Compassion when discussing data/results from AI generated scans

Personal touch and real patient care, having time to actually speak to our patients and support them more holistically

Dad jokes

Bringing the care element

Should give us more time with patients, but I fear that it will be used to increase capacity

Focusing more on individual patient centred care

Time to care

Personal touch

Solidarity

Get more done in less time

Improve patient workload flow

Advocating for patients from a holistic perspective

Personalised care

Dose reduction

More time to care for patients

capacity

Better patient care

When time is saved, dont put more patients in that gap... use it for training, audit, research etc

Follow up

To change the narrative beyond diagnostic treatments to predict and prevent

Patient focused care

Time for patient contact increased

Patient care - individual care

More time to spend with patients and career development

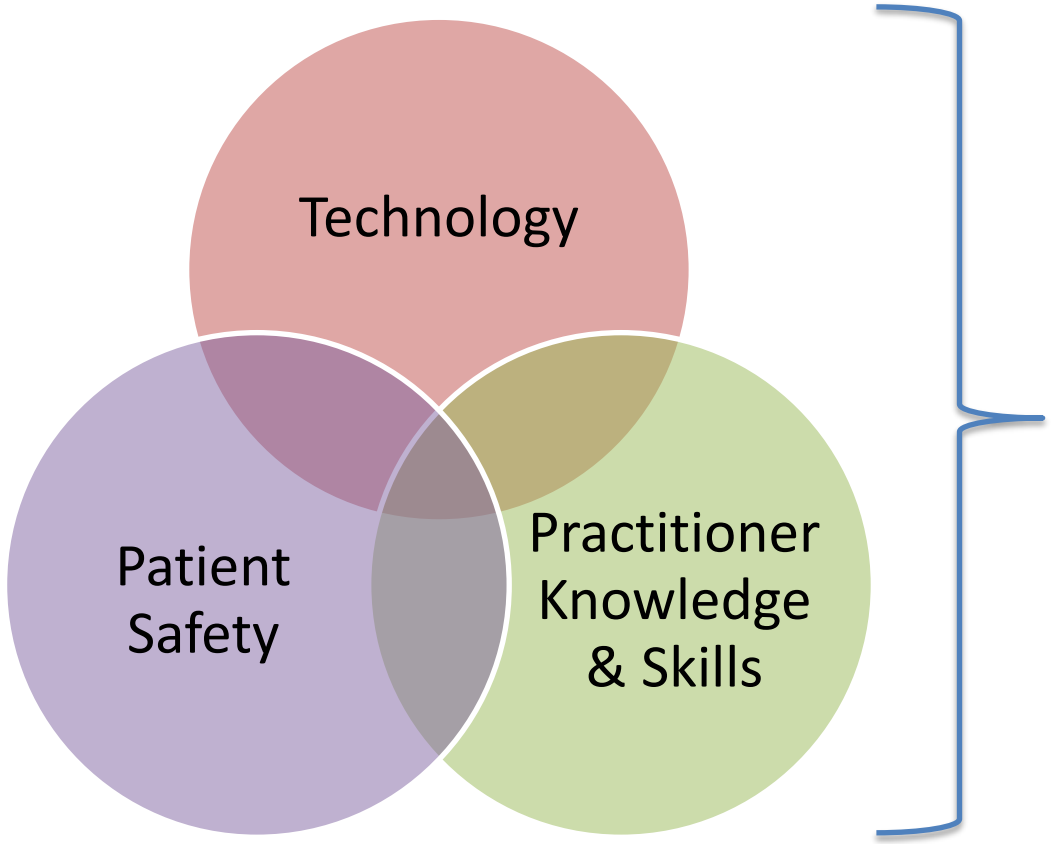
Care Validation of data Quality Advocacy Ethics

Communication Person centred care Social prescribing Second opinion on AI diagnosis Checking negative results carefully

Ensure there is a rigorous hierarchy of accountability for when unsatisfactory results are achieved

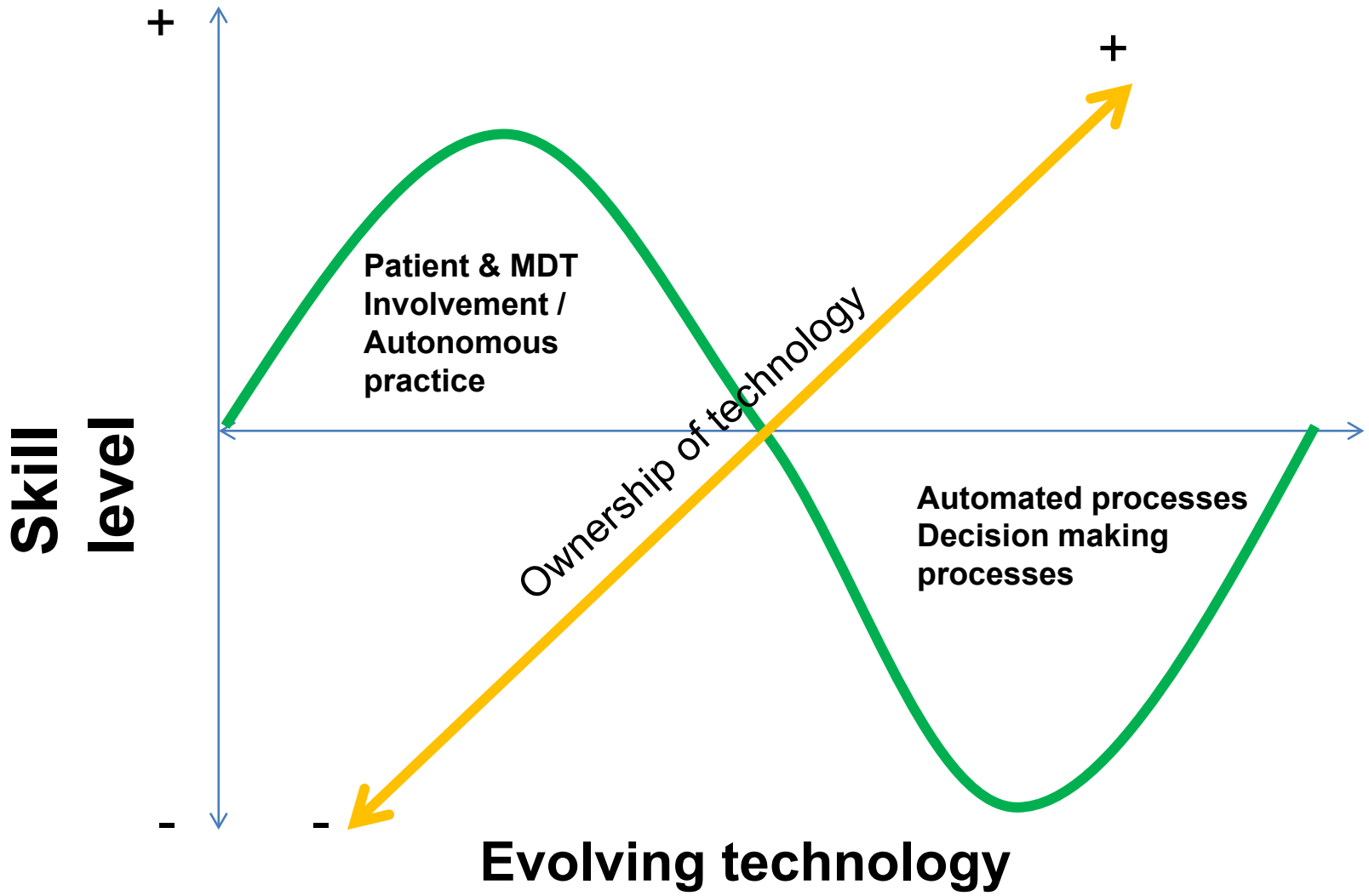
Human touch personalised care

Potential impact of Technology on our Profession | Ownership



Healthcare Science and Diagnostic Imaging students
Learning about cardiac physiology

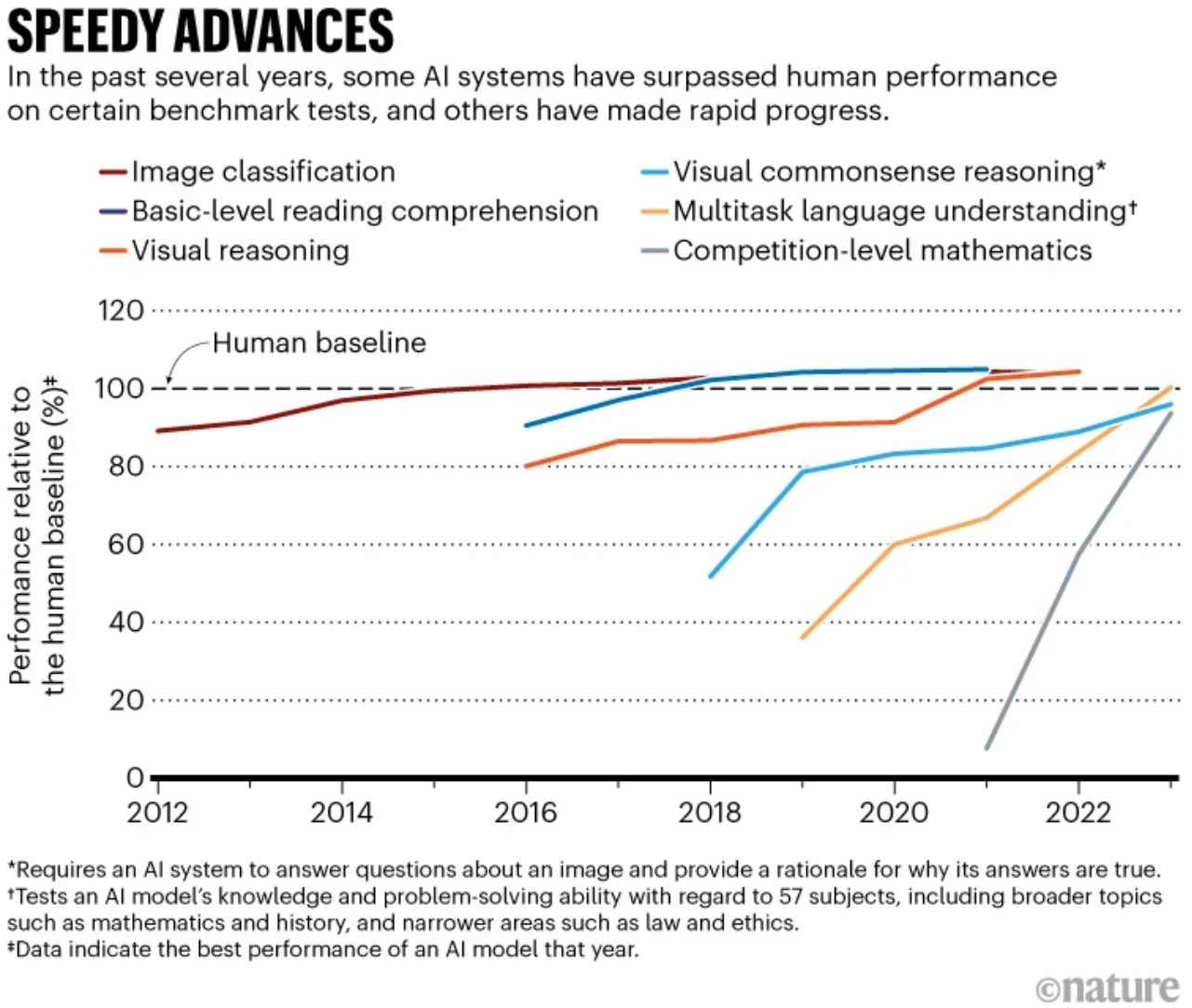
Professional '*ripple*' and reorder



Griffiths, 2015

Role erosion and automation / technological determinism

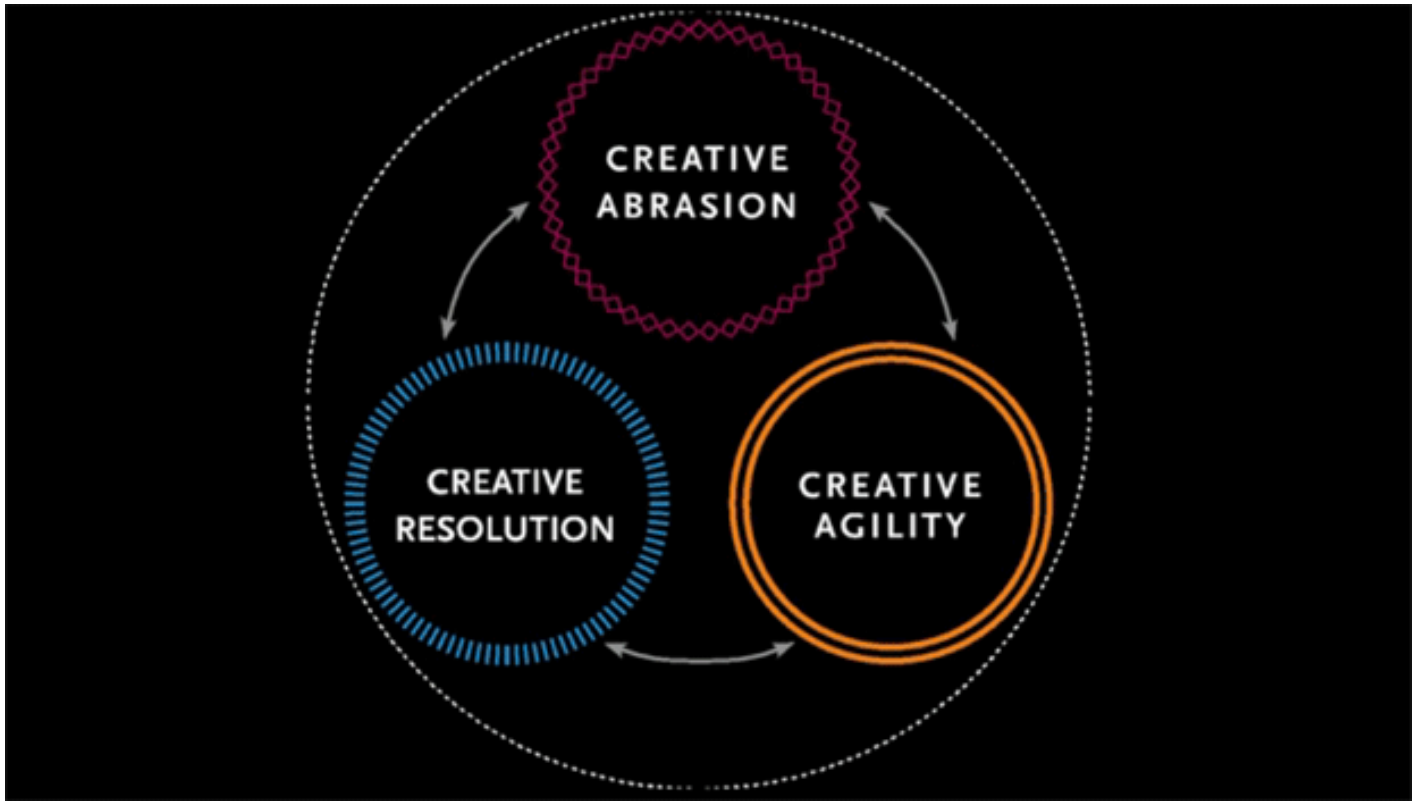
- Potential deskilling of the healthcare workforce
- Professional erosion / social impact of new technology
- Technological determinism presented
- Tribal instincts could prevent collaboration opportunities between different disciplines



Stanford University, 2024

Potential future roles that Radiographers could shape / lead

Collective Creativity | We all have a contribution to make



Positive Disruption + Curiosity = New models of patient care / professional opportunities

Linda Hill, 2014

Creating Gravity Assist – Academic Practitioners of the future

- Radiographers have the key knowledge, skills and ways of working to empower our future workforce but also ensure there is a professional disruption within wider professional groups.
- Radiographers who want to move into the space where practice interfaces with curricula design need to be encouraged through role modelling, active promotion and flexible approaches to employment contracts
- Radiographers are developing expertise in innovative methodological domains, such as citizen science and open-source learning/research and producing impactful research that improves wellbeing.
- Creating opportunities for new types of roles where new knowledge, skills and types of professional relationships is key in Healthcare (Barber, 2021)

Removing our inherent boundaries

- Greater balance is required for those who work in an academic environment in terms of the wider skillset required to support students.
- Greater focus on pastoral care and resilience is required along with greater connection and adherence to various quality frameworks, such as Access and Participation Plans / B3 TEF conditions
- The changing clinical landscape requires radiographers with knowledge and competence to adapt to quickly evolving situations including engagement in continuous professional development and learning to perform efficiently in advanced practice roles (Snaith and Beardmore, 2021).
- Most extended clinical scope of practice skills seen in the last century including vetting and treatment verification, cannulation and image evaluation are now an expectation of threshold radiography competencies at qualification.
- The merging of technologies (MR/Linac Accelerators) and techniques (PET/CT and Dosimetry and Radiotherapy Planning) is creating opportunities for future role definitions to be established.
- Mobilising roles within Community Diagnostic Centres is also a key area of development (Heales, 2021)

Health professionals involved in mock Law courts

Radiographers involved in mass incident simulation events

How can we influence the creation of new roles / skills within our profession?

40 of 57 responded • 47 responses

Conversations!! Talk to each other

Professional body need to be vocal in AHP space

Ask for training opportunities and role development in our workplaces

Speak up loudly. Shout more

Empowering staff to bring forward ideas for new skill sets

Pay and giving time to learn skills

Take back image interpretation from nurses in ED

Not be afraid to be heard

Advocate - demonstrate.

Advocating change
Upskilling New knowledge

Talking with AHPs, NHS leaders, as a profession

Collective confidence
Embrace professionalism

Group think... develop culture

Diversifying

Greater polyvocality and radiographer representation

Advocate for ourselves, celebrate our success, ringfence time for non patient facing professional activities

Empower students to be more involved with evidence based practice, researching and publishing

Use Current frameworks for advancing practice

Research activity to demonstrate benefit

Lobby for change, be the squeaky wheel!

Be braver! And back our own profession and each other

Higher professional profile

By getting together to work problems

Show less

Proactive leadership

Collaboration

Teach Bravery and check and challenge practices with equal importance as a meta skill

Insist on lead AHP involvement Influence at board level Be brave

Advocate and innovation

Be the first to share roles don't wait for others to lead

Collaboration between clinical practice and higher education

More involvement from unions and professional bodies. Development of new roles through NHS providers.

Worshops. Collaborate with universities ,

Dont be an echochamber, think outside and develop

Use ECFvImplement the ECF influence leaders and managers

Be involved from the get go, be confident that we have the skill set to provide these roles

Move out of silos

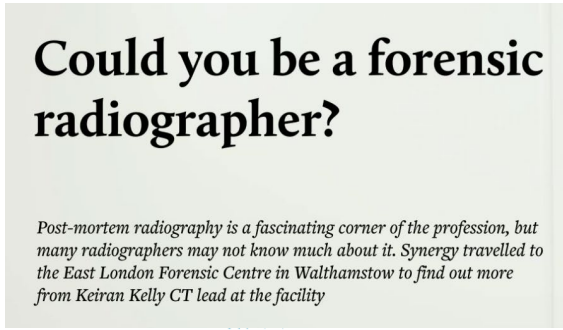
Leadership skills development

By shouting about what Radiographers can do

Work in a more multidisciplinary way

Public Health, Environmental Health and championing difference

- Inputting into various public health and environmental health agendas:
  - Population health data / interpretation
  - Forensics, crime investigations (Sangonuga et al, 2022)
  - Virtual autopsies (Clemente et al, 2017)
  - Population migration
  - Bone Health and Osteoporosis (Field and Snaith, 2013)
  - Emergency Ultrasound (Field and Snaith, 2013)
  - Reducing health inequalities through active work:
    - Skin tones / medical photography and imaging
    - Radiation Induced Skin Reactions (Julka-Anderson et al, 2024)
  - Radiogenomics in PET/CT and MRI (Bodalal et al, 2019; Liu et al, 2023)



Could you be a forensic radiographer?

Post-mortem radiography is a fascinating corner of the profession, but many radiographers may not know much about it. Synergy travelled to the East London Forensic Centre in Walthamstow to find out more from Keiran Kelly CT lead at the facility

Contents lists available at ScienceDirect

Radiography

journal homepage: www.elsevier.com/locate/radi

Understanding therapeutic radiographers' confidence in assessing, managing & teaching radiation induced skin reactions (RISR): A national survey in the UK

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ABSTRACT

Introduction: The standard toxicity tools adopted for assessing Radiation Induced Skin Reactions (RISR) do not currently reflect how skin changes occur across all skin tones.
A one size fits all approach is adopted currently for RISR assessment. The aim of this study was to understand what evidence-based practice and RISR tools are being used across the therapeutic radiography workforce and the levels of confidence in using these tools.
Methods: A survey using Likert scales to assess confidence in RISR assessment and management was made available to 77 departments in the UK between August–November 2021. Descriptive statistics were used to understand respondents' confidence in assessing, managing, and teaching RISR between white, brown, and black skin tones; Fisher's exact test was used to assess the significance of differences between groups.
Results: Complete responses were received from 406 therapeutic radiographers. Radiation Therapy Oncology Group (RTOG) was the most used RISR assessment tool (58% of respondents n = 237). Most respondents (74.2% n = 303) reported use of locally produced patient information on skin care, rather than the Society and College of Radiographers evidence-based patient leaflets. Confidence in assessing and managing RISR in white skin was higher than that in brown and black skin. Similarly, confidence was higher in teaching of appropriate RISR assessment and management in white skin tones when compared to brown and black skin.
Conclusion: White skin tones appear to be more confidently assessed and managed for RISR along with taught appropriate assessment and management, than brown and black skin tones in the sample of the workforce that responded.
Implications for practice: A greater understanding of the reasons for these differences is required but this study aims to instigate change and positive growth within this area.

Introduction

Radiation Induced Skin Reactions (RISR) are one of the most common side effects of external beam radiotherapy.[1–4] The development of a RISR is a function of total radiation dose received, skin area, external beam radiotherapy, use of bolus material and factors individual to the patient such as diabetes.[1–4] The severity of a RISR is dependent on the total radiation dose received, the area treated (i.e.: where there are skin folds skin reactions are often more severe) and use of additional bolus material that removes the skin sparing effect of mega voltage treatments. With this, the use of concurrent chemotherapy and potentially individual lifestyle choices can also increase the severity. In the United Kingdom (UK), the Society and College of Radiographers (ScoR) have led on research into understanding RISR and establishing guidelines for the radiotherapy workforce.

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DIVERSE IMAGES FOR HEALTHCARE

REFRAME

Professional identity – Creating families of practice

- The current practitioner-level knowledge, skills and attributes include a critical appreciation of the roles '*disruptive technologies*' play in the delivery of healthcare services (College of Radiographers, 2022; Health and Care Professions Council, 2023).
- The development of the Radiographer of the future with the relevant competence to address current clinical challenges equally requires academic Radiography practitioners with enhanced skillsets and knowledge to provide quality education of modern relevance (Snaith and Beardmore, 2021).
- Over the last two decades, there has been a move to ensure the space between theory and practice is closely entwined, with many Radiography programmes of study undertaking:
  - Problem-based and enquiry-based learning.
  - Pedagogical models of scaffolding learning, teaching, assessments for creating and attaining the graduate level outcomes (Lawal et al., 2020).

The fundamentals

Technical expertise & knowledge:
Optimal & competent operation of the gamma camera
Operation of additional equipment (e.g. CT component)
Performance of quality control procedures
Problem solving abilities / aware of own limitations
Ability to reflect / critically evaluate own practice

Radiation protection & safe working practice
Undertake examination in a safe and competent manner
Prepare and administer radiopharmaceuticals with minimal dose to patients
Appreciation and concern for own personal dose levels & colleagues
Competent injection technique
Communication, organisation and workload management / planning

Patient care and technique optimisation:
Professional and competent
Care of the patient, empathy & ethical awareness
Optimisation of techniques & ability to adapt protocols where appropriate
Ability to undertake a wide range of examinations & demonstrate best practice
Understanding patients needs
Personal development (research and audit)

Figure 1 Suggested fundamendal qualities of Nuclear Medicine Radiographer.

Griffiths et al, 2010

Radiography (2010) 16, 238–243

available at www.sciencedirect.com

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journal homepage: www.elsevier.com/locate/radi

REVIEW ARTICLE

Evaluating the fundamental qualities of a nuclear medicine radiographer for the provision of an optimal clinical service

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KEYWORDS
Education;
Career development;
Clinical practice;
Nuclear medicine

Abstract The developing nature of nuclear medicine practice highlights the need for an evaluation of the fundamental qualities of a Radiographer working within this discipline. Existing guidelines appear to be in place for clinical technologists working within nuclear medicine. However, limited guidance has been provided for Radiographers practicing within this discipline. This article aims to discuss the fundamental qualities that are considered essential for optimal service delivery, following consultation with various stakeholders. Areas such as technical expertise and knowledge, appropriate use of imaging equipment and current models of safe working practice will be discussed. Patient care and ethical considerations will also be evaluated, along with some core recommendations for future advanced practice.

Introduction

Nuclear Medicine practice continues to evolve with the advent of new technology such as SPECT/CT, advancing techniques and role development. Apart from the four-tier career structure[1] there does not appear to be a clearly defined professional development pathway for Radiographers specifically working within Nuclear Medicine practice. The Institute for Physics and Engineering in Medicine (IPEM) provides some guidance for Technologists and it is hoped that the Modernising Scientific Careers consultation document[2] will provide further career development. Given the potential cross fertilization of skills, knowledge and understanding in this developing field of clinical imaging; clear educational and training frameworks for Radiographers are clearly required.

The European Association of Nuclear Medicine (EANM) provides guidance for Nuclear Medicine Technologists at

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HYBRID IMAGING IN NUCLEAR MEDICINE: CREATING A PATIENT-CENTRIC APPROACH TO SERVICE DELIVERY

MARC GRIFFTHS, GARY DAWSON

Staffing a modern, hybrid imaging environment requires a skilled and competent workforce, who should have the opportunity to further develop their working practice and clinical service provision.

TECHNOLOGICAL POSITIONING

Health professionals across the world now work within an environment of flux and uncertainty, which inevitably presents new challenges for the workforce, in terms of developing new skills and knowledge[1]. This, when coupled with the need to provide high quality care, which enhances the individual patient experience[2], has resulted in a revolutionary change to the traditional role of the health professional[3]. The introduction of any new hybrid imaging system may require appropriate staff training, considerations for service redesign and patient workflow dynamics, as part of the change process.

Collectively, the term 'hybrid imaging' relates to the physical fusion of more than one diagnostic imaging tool to provide anatomical and functional information in one environment. The emergence of the hybrid imaging workforce has arisen from the developing specialist area of clinical nuclear medicine over the last decade, mainly due to the introduction of new imaging hardware and developments within current patient treatment pathways[4,5]. The ability to perform a hybrid imaging examination within a single physical environment provides clinicians with physiological and anatomical information, which may form part of the patient's initial diagnosis or evaluate their on-going response to treatments such as radiotherapy and / or chemotherapy[6,7,8]. The integration of new technology requires the modern healthcare professional to adopt a greater 'evidence based' ethos, which is innovative, promotes quality patient care, and encourages "smart" working practices that help deliver productivity savings[9,10].

Optimisation of SPECT/CT acquisition parameters is essential to current clinical practice, in order to minimise the patient dose from the CT element of the examination and to ensure that an appropriate level of anatomical information, which is both justified and adds clinical value to the imaging procedure, is acquired. There is a necessity for clear clinical protocols and appropriate use of CT within a hybrid imaging environment, especially where the patient may have recently undergone a diagnostic quality CT examination. Such activities would appear to warrant the development of clear clinical guidelines / protocols, which can help support the healthcare professional as to the appropriate use of CT within the hybrid imaging environment in order to ensure that patient safety can be maintained at all times.

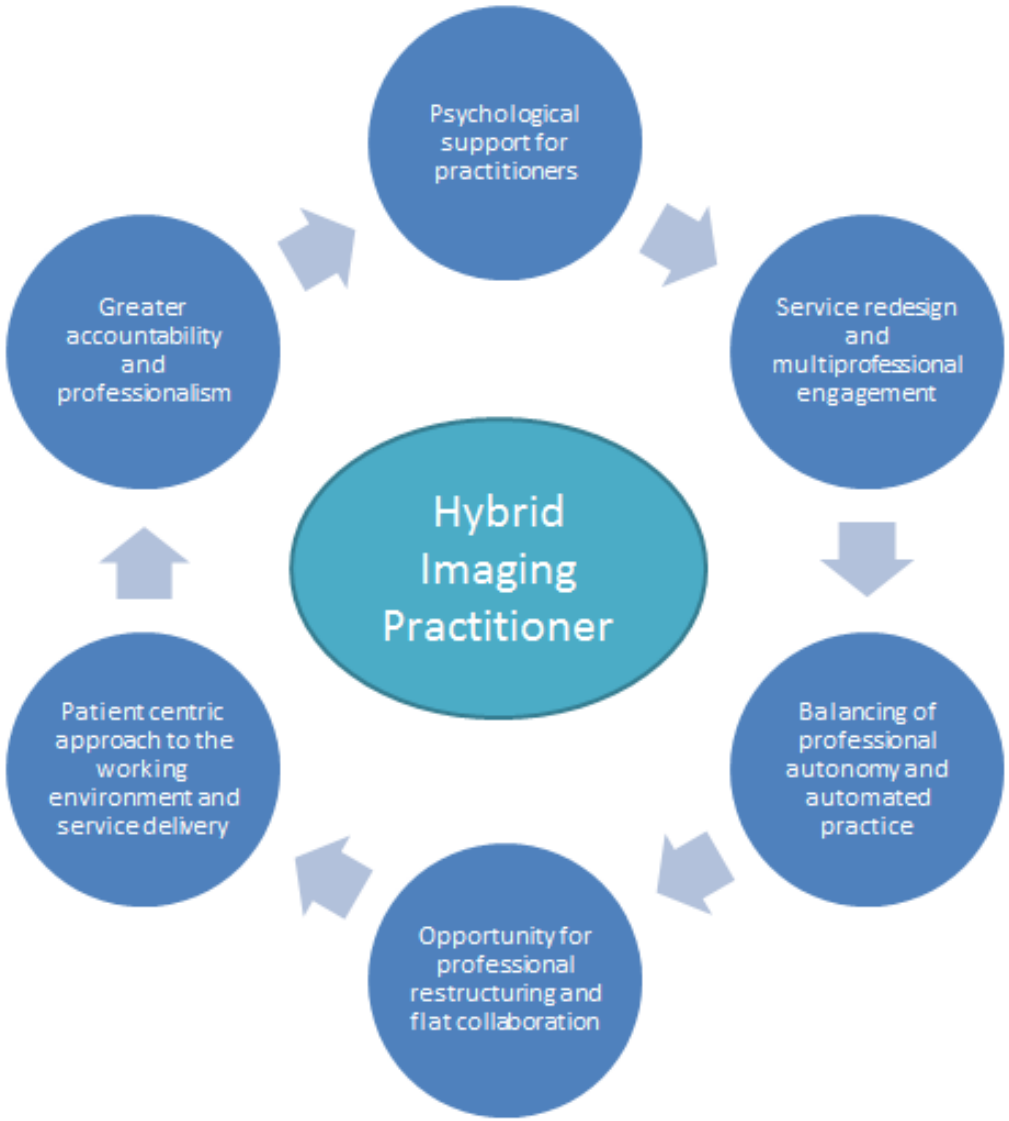
The growing use of CT within the hybrid imaging environment has placed additional pressures on nuclear medicine practitioners, particularly nuclear medicine technologists, who make up a large percentage of the workforce, as previous or recent training and experience with CT may not have been undertaken. Balancing the needs of effective service delivery, workforce development and holistic patient-centric care requires careful planning and collaboration with a range of healthcare professionals. Introducing new hardware and software technology requires appropriate social frameworks, which may include ensuring the role of the practitioner is clearly defined in order that the emerging relationship with the patient is maintained. There is a potential danger of 'patient objectification' during high technology examinations[11,12], such as hybrid imaging and the subsequent dehumanisation process that may occur. Creating an environment where workforce flexibility is present, in terms of understanding the position of new technology within the patients' journey and a greater understanding of the need to reshape the delivery of such clinical services, is paramount to the ongoing development of hybrid imaging within the modern healthcare domain.

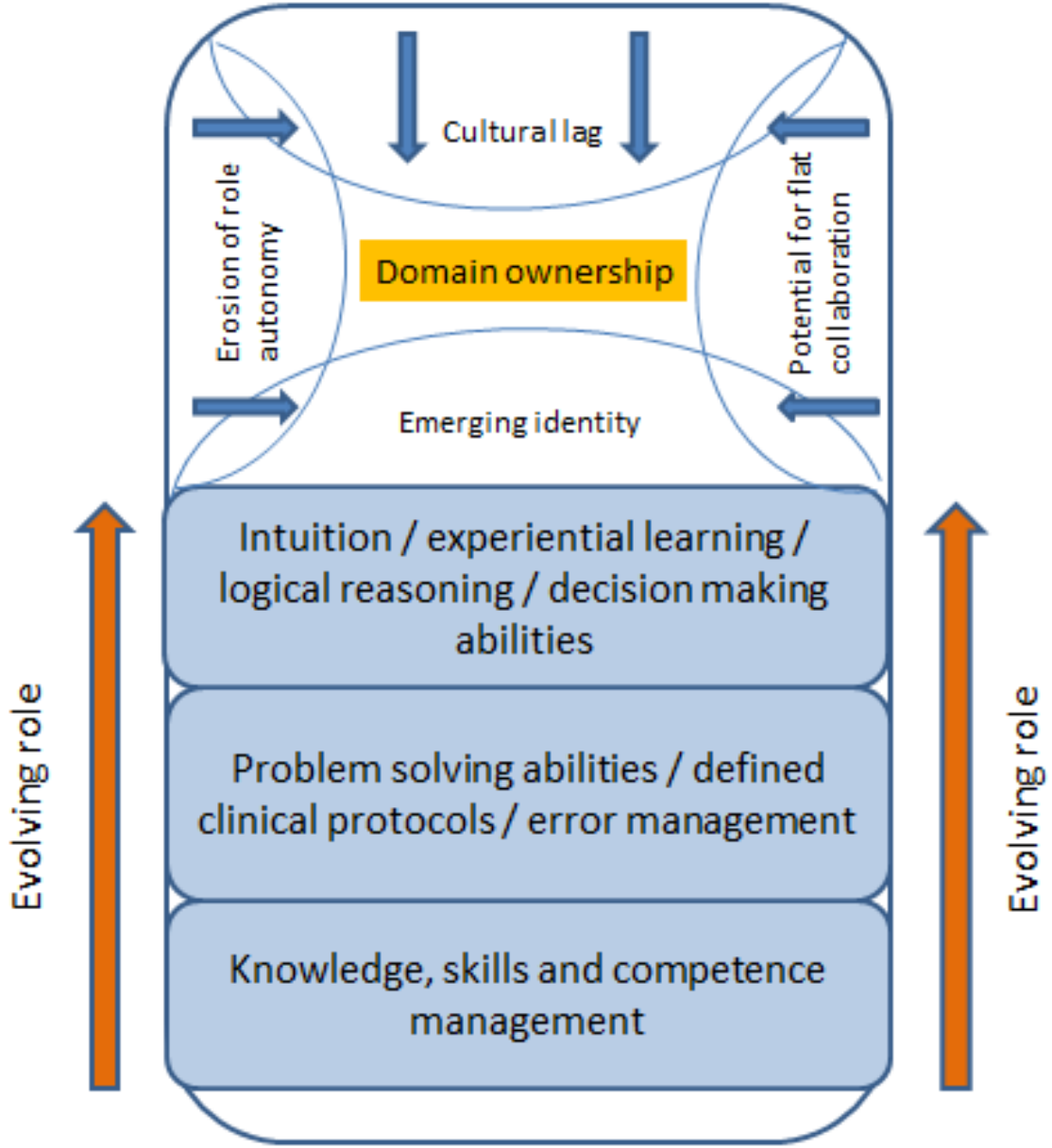
CHANGES IN WORKING PRACTICE AS A RESULT OF INTRODUCING HYBRID IMAGING TECHNOLOGY

Introducing new hybrid imaging technology may result in an increase in examination

Imaging and Oncology, 2014

Developing clear Enhanced and Advanced practice routes

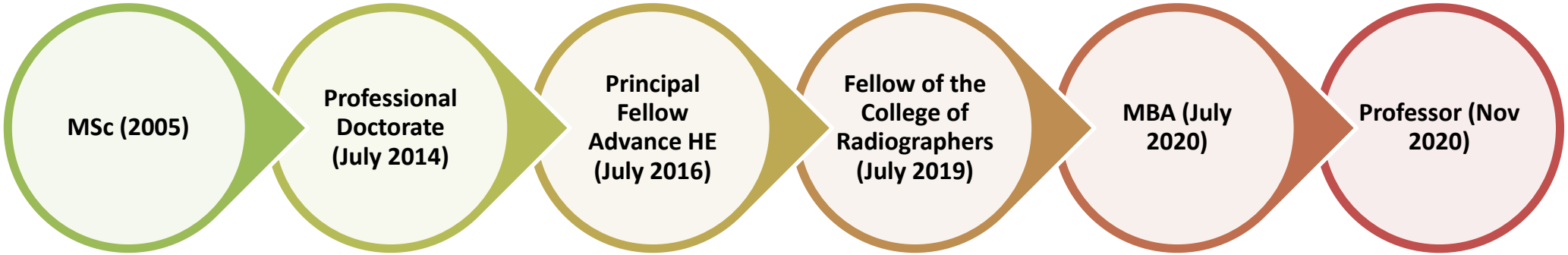


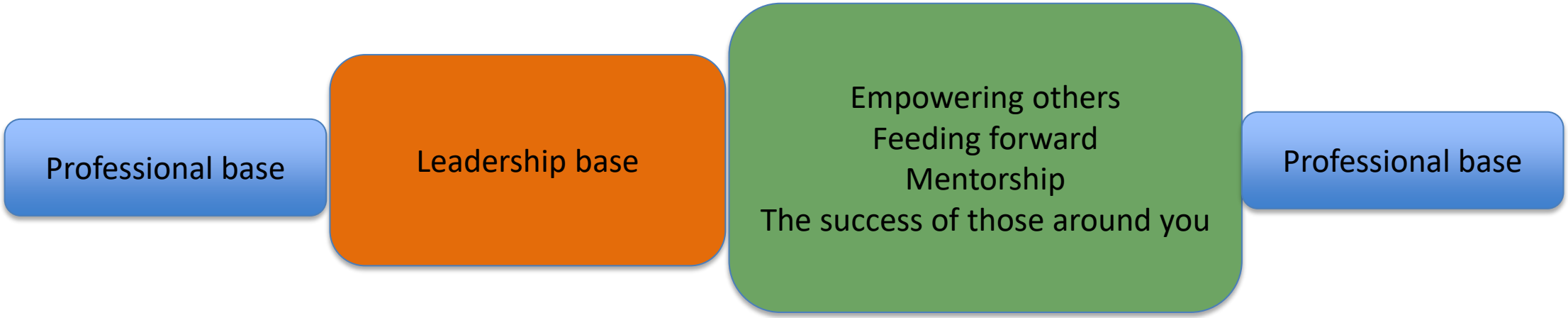


Griffiths, 2015

Leadership, Research & Values within our profession

Being authentic and bringing others with you along the journey

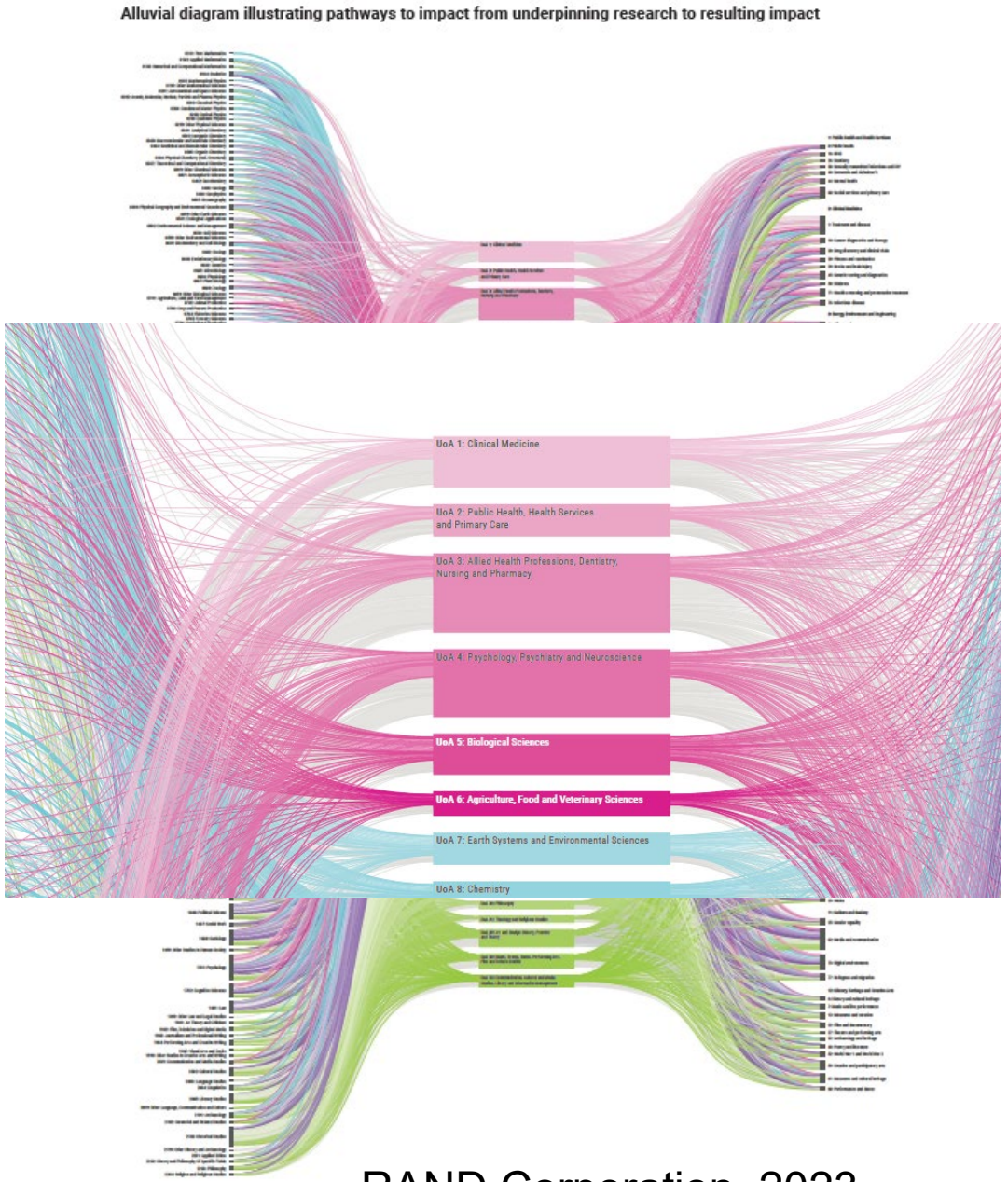




Research and innovation | Our purpose

- Being integral to research and innovation is key to our profession (CoR, 2021)
- The use of '*Citizen Science*' is becoming more important across society.
- Research matters, it's important for future patient outcomes and our professional identity.
- Using AI to support patient workflow, management and virtual positioning (Booji et al, 2019)
- Patient, Public & Practitioner Partnership involvement in research (CoR, 2018) and ensuring core principles are included:
  - *Shaping a research domain/project application*
  - *Identifying research themes/challenges*
  - *Ensuring an inclusive approach to research*
  - *Co-applicant on a research grant application*
  - *Input in research methodologies and analysis*
  - *Dissemination of findings / creating impact (Sacristan et al, 2016)*

Our true research potential is untapped



RAND Corporation, 2023

- Research should be for the many, not the few
- For many Universities Unit of Assessment (UoA) 3 was the strongest unit of research return for the Research Excellence Framework (REF).
- In Universities, only 68% of the full economic costs of research are recovered (HEPI, 2024).
- How do we access alternative funding sources for research and development?
- We have the opportunity to connect across different subject disciplines and collaborate with new and emerging health professions.
- Progressive role design and development across the clinical, academic and practice dimensions will be key to securing future grant income / generate quality publications
- MDT / Translational Research is key to future research fields (UKRI), alongside RCTs and other forms of research

UWE Bristol University of the West of England

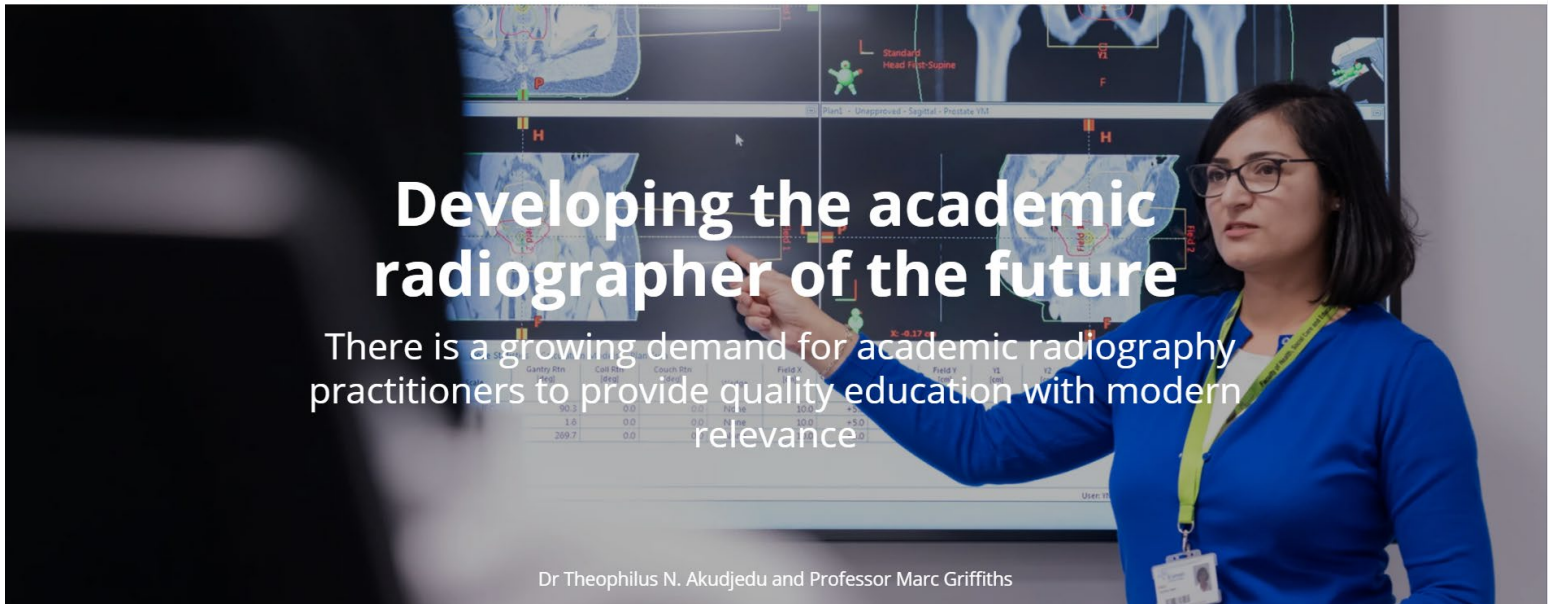
Allied Health Professionals

Careers in academia and leadership

Gibbs et al, 2023

SoR 100 YEARS THE SOCIETY OF RADIOGRAPHERS IMAGING & ONCOLOGY

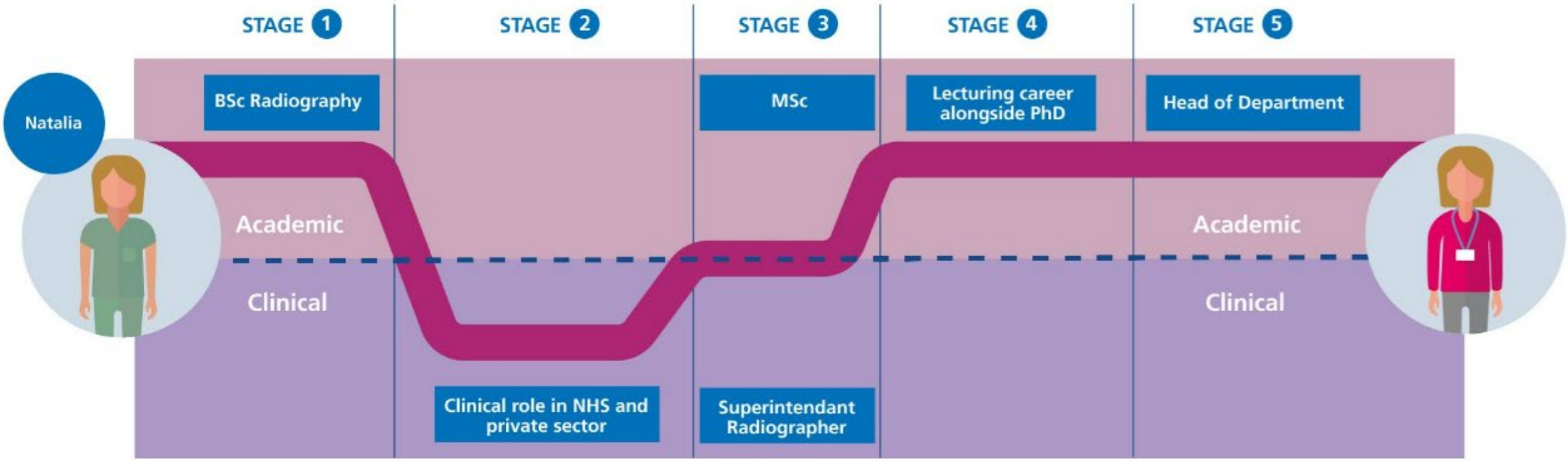
UWE Bristol University of the West of England



Developing the academic radiographer of the future

There is a growing demand for academic radiography practitioners to provide quality education with modern relevance

Dr Theophilus N. Akudjedu and Professor Marc Griffiths



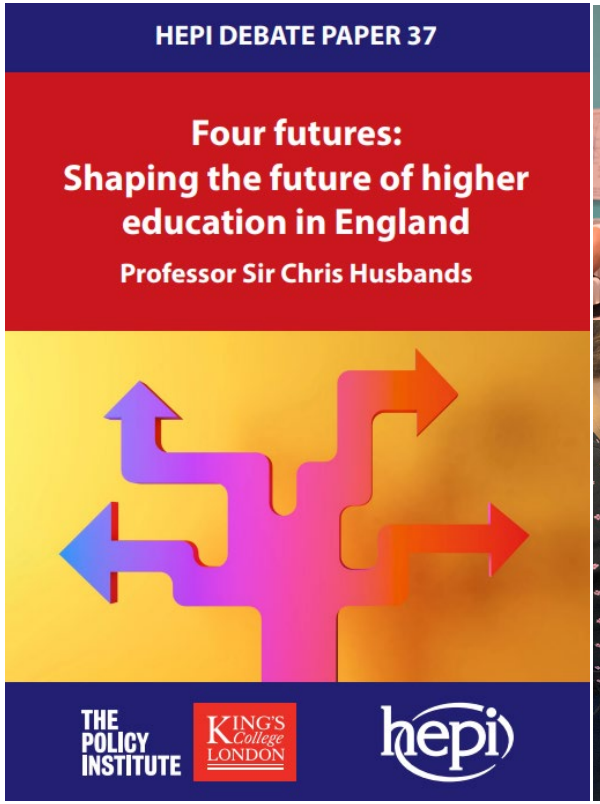
Akudjedu & Griffiths, 2023

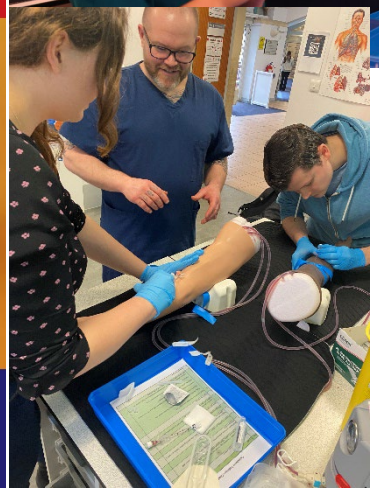
Moving between different spaces

- Modern learning environments require an array of characteristics across key domains to support pastoral care, digital and simulated learning, research and enterprise, and understanding of data analytic tools for decision-making in higher education.
- There is no single '*pathway*' into a career as an academic radiographer and/or an AHP educator (Griffiths et al, 2019)
- Many AHPs move into the academic space after gaining some experience in clinical roles, while others focus on an academic pathway from early in their careers (Gibbs et al, 2019)
- The role that Radiographers play in terms of embedding sustainability across our profession:
  - United Nations Sustainability Development Goals through education, research and leadership.
  - Life cycle assessment for equipment and waste management (Scope 1,2 &3 frameworks)
  - The role of Radiographers in energy, travel, radiopharmaceutical usage and disposal is becoming increasingly important (Anudjo et al, 2024)
- In the future, it's likely that a Tertiary Education Model (TEC) will come into play in England (HEPI, 2024)

Being advocates for change | Promoting difference

- Exploration of new roles in the areas of:
  - *Genomics and Biosciences*
  - *Data Analytics and pathway navigation specialists*
  - *Validation of AI and its use within the wider healthcare environment*
  - *Community-based medical imaging roles*
  - *Community Impact Teams – Long Term Conditions*
- Educational reforms – Future workforce/education pathways (Husbands, 2024)
- Third space working within academia and clinical practice (Griffiths et al, 2024)
- Wider connections with University mission groups – University Alliance Group / Council of Deans of Health





The collective power of our roles and abilities - #Covid19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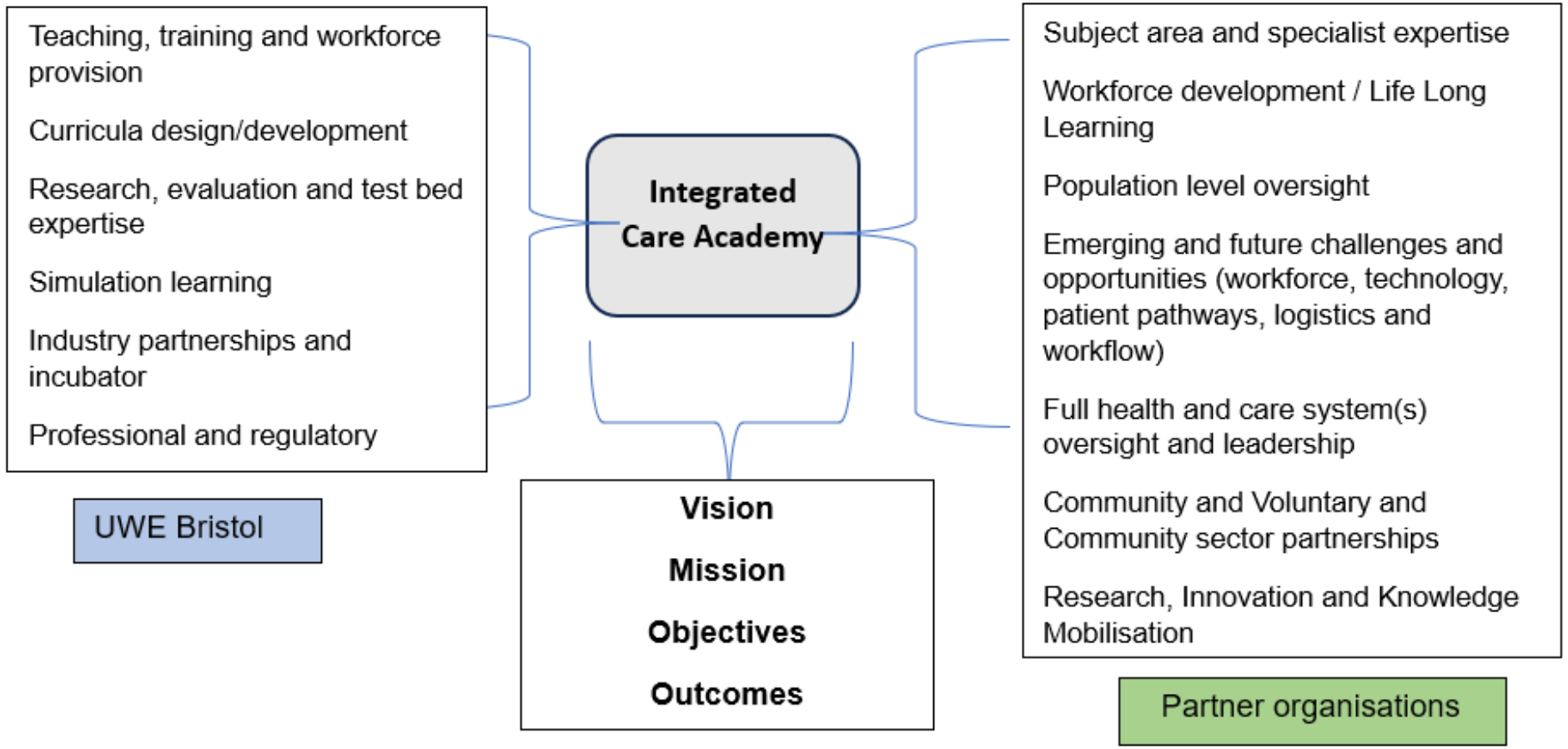
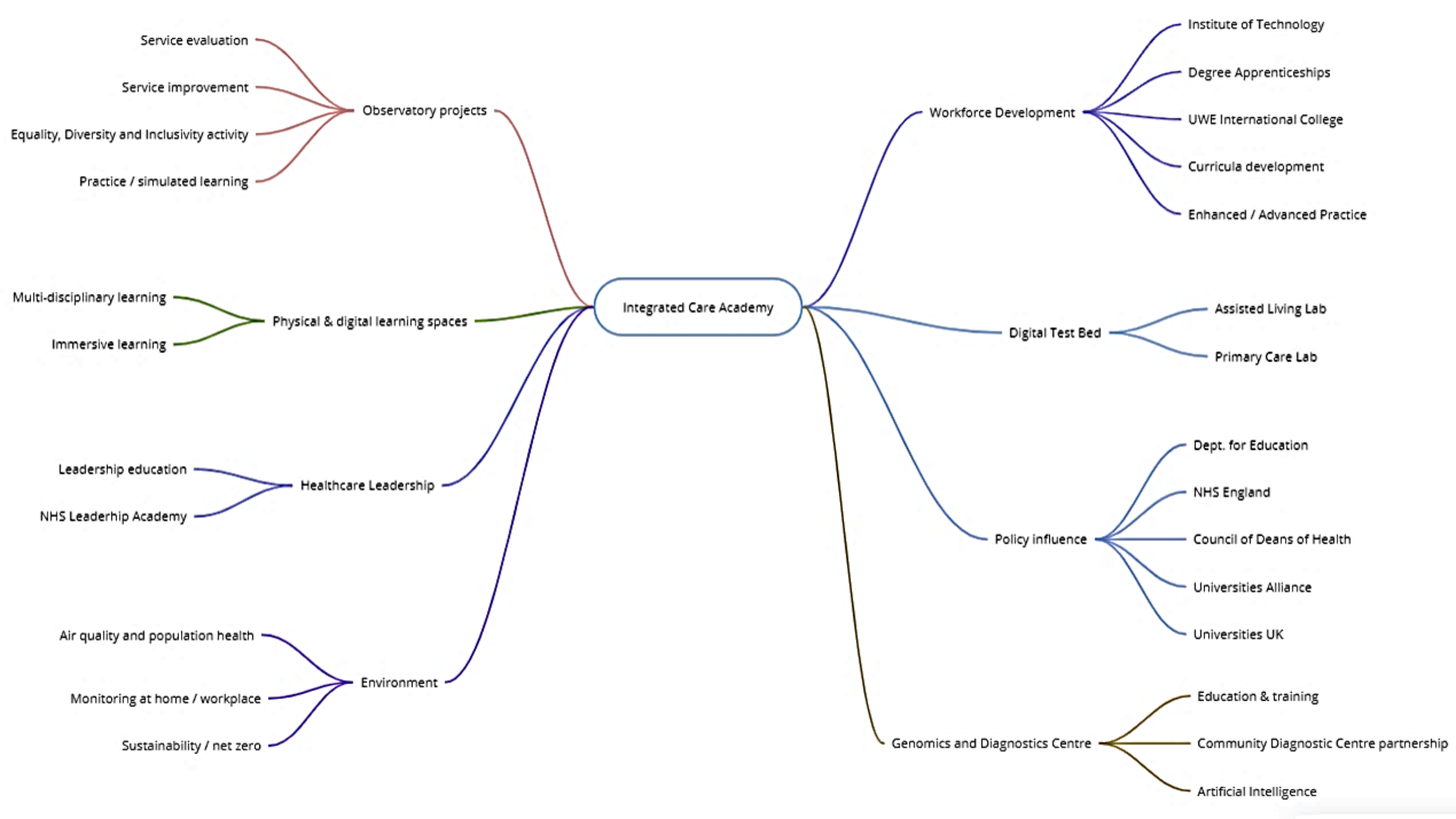
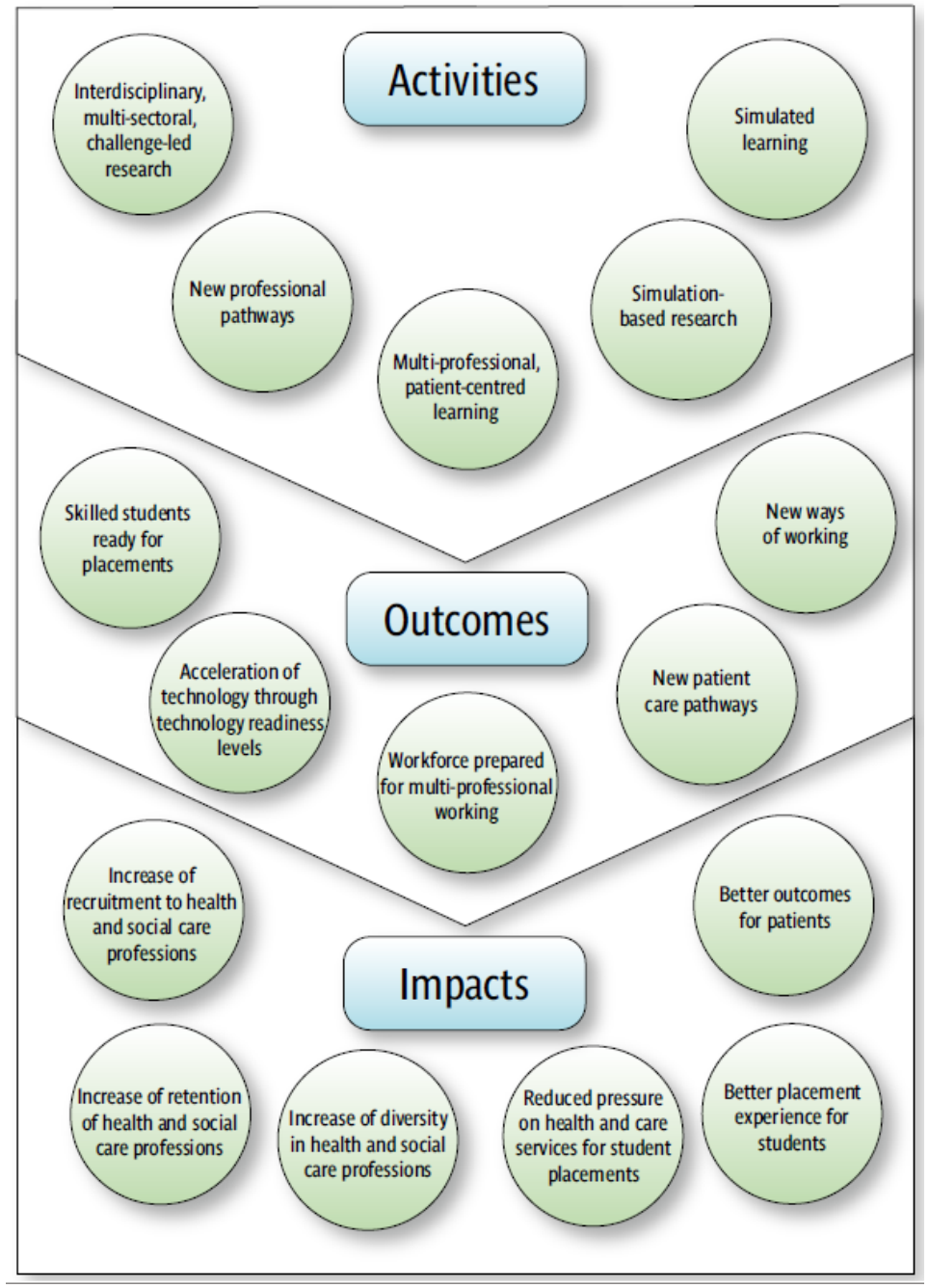
Integrated Care Academy @ UWE Bristol




Integrated Care Academy
Observatory projects
Service evaluation
Service improvement
Equality, Diversity and Inclusivity activity
Practice / simulated learning
Physical & digital learning spaces
Multi-disciplinary learning
Immersive learning
Healthcare Leadership
Leadership education
NHS Leaderhip Academy
Environment
Air quality and population health
Monitoring at home / workplace
Sustainability / net zero
Workforce Development
Institute of Technology
Degree Apprenticeships
UWE International College
Curricula development
Enhanced / Advanced Practice
Digital Test Bed
Assisted Living Lab
Primary Care Lab
Policy influence
Dept. for Education
NHS England
Council of Deans of Health
Universities Alliance
Universities UK
Genomics and Diagnostics Centre
Education & training
Community Diagnostic Centre partnership
Artificial Intelligence

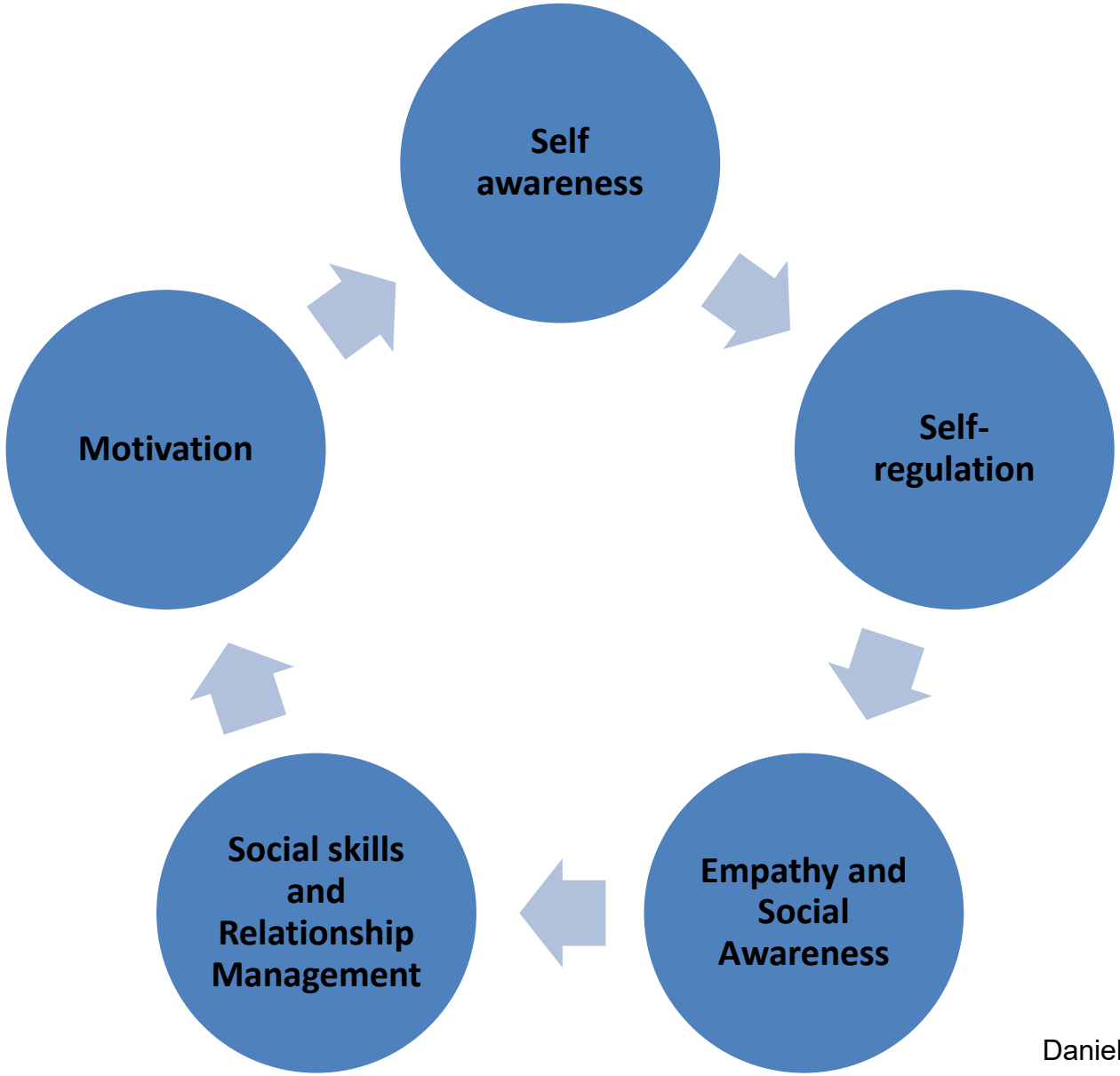


Akudjedu and Griffiths, (2023)

Promoting diversity within the profession

- Promoting diversity within our profession and wider is crucial
- Over the last decade my role has evolved, with a greater focus on:
  - *Creating a focus on representation across all healthcare programmes and promoting equality, diversity and inclusion.*
  - *Supporting our Black, Asian and Minoritised Ethnic healthcare students on placement.*
  - *University-wide advocate for neurodiversity*
  - *Champion and promote alternative routes into further and higher education.*
  - *Mental health support/charter for students*
  - *Embracing diversity in student applications/recruitment to health and social care programmes.*
  - *Supporting wellbeing and promoting Speak Up*
- Our profession needs to continue to do more to understand the support needs of neurodivergent students (Potts, 2022; Murphy 2011; King 2018).

Emotional Intelligence & our core values



Feeding forward

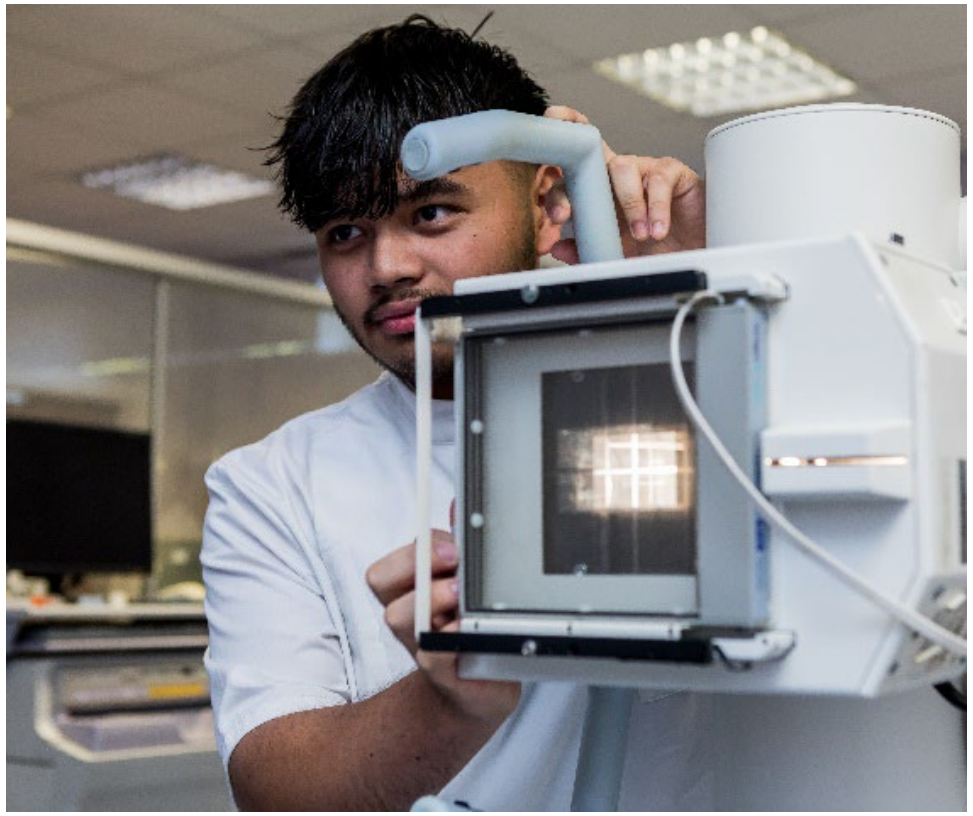
Staying humble

Being kind to each other as well as our patients

Daniel Goleman (1995)

Neurodiversity and being neurodivergent

- Disclosure of being neurodiverse in the placement setting is important (Potts, 2022)
- Creating pro-neurodiverse placements and settings is important and promoting neurodiversity across our profession will help with diverse recruitment.
- Struggles with demonstrating empathy can be a myth and actually, there is something about hyper empathy and effective delivery of patient care (King, 2018).
- Neuro diverse allyship / innovation in practice.
- Understanding what it means to have a diverse workforce and the benefits this brings to any organisation.



Third Space working & relationships

Third space working and culture

- The concept of '*Third Space*' has been used in social theory to explore spatial relationships, more specifically the impact of diversity and difference (Whitchurch, 2015)
- The use of spatial relationships within health education environments may offer advantages in terms of how students are supported with their learning through alternative roles and environments (Griffiths et al, 2024)
- Student leadership programme (CoDH) is one example where investment in tomorrow's leaders is happening, promoting and advocating third-space relationships.
- CoR Formal Radiography Research Mentoring Scheme (FORM) is also promoting leadership, confidence and research readiness across the workforce
- NIHR Fellowship Schemes / Doctoral training schemes across contemporary supervisory teams.
- Working with Technicians – Development of Spatial Relationships and new models of curriculum delivery (Griffith et al, 2024)
- Potential opportunities to have greater involvement within the Creative and Arts Sectors, along with industry partners.
- Our role in ensuring a future of sustainable practice is developed, through appropriate frameworks and collaboration (Anudo et al, 2024)

Technician Commitment – Full circle (Mentorship)

Dawson et al, 2010

Technician Commitment, 2024

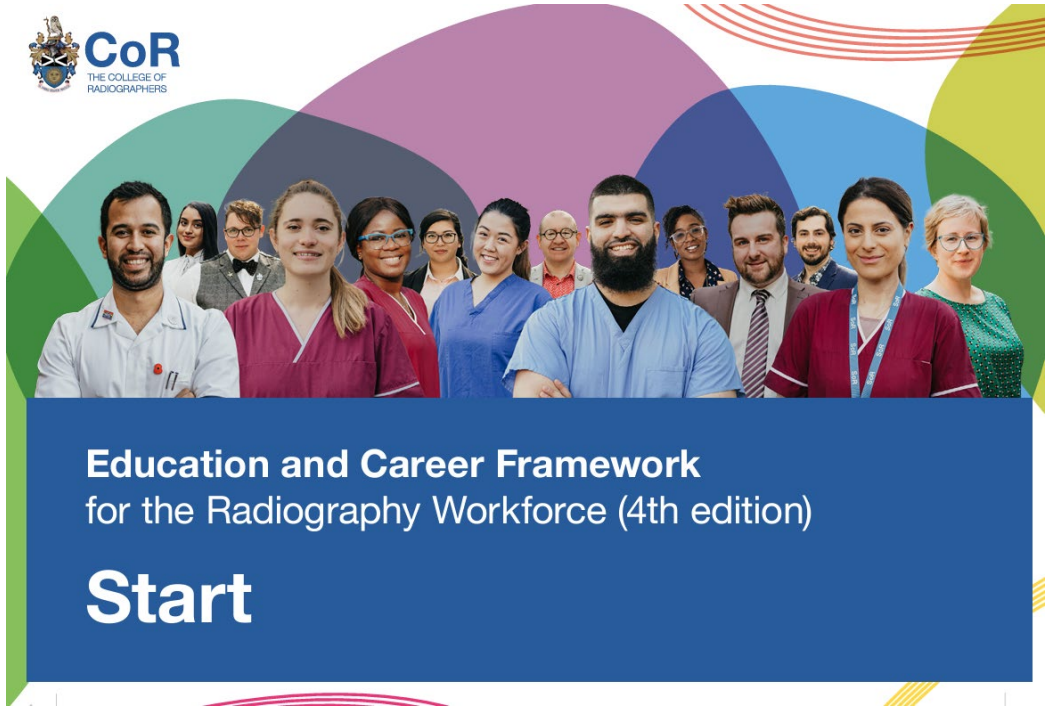
A model for change | collaborative working

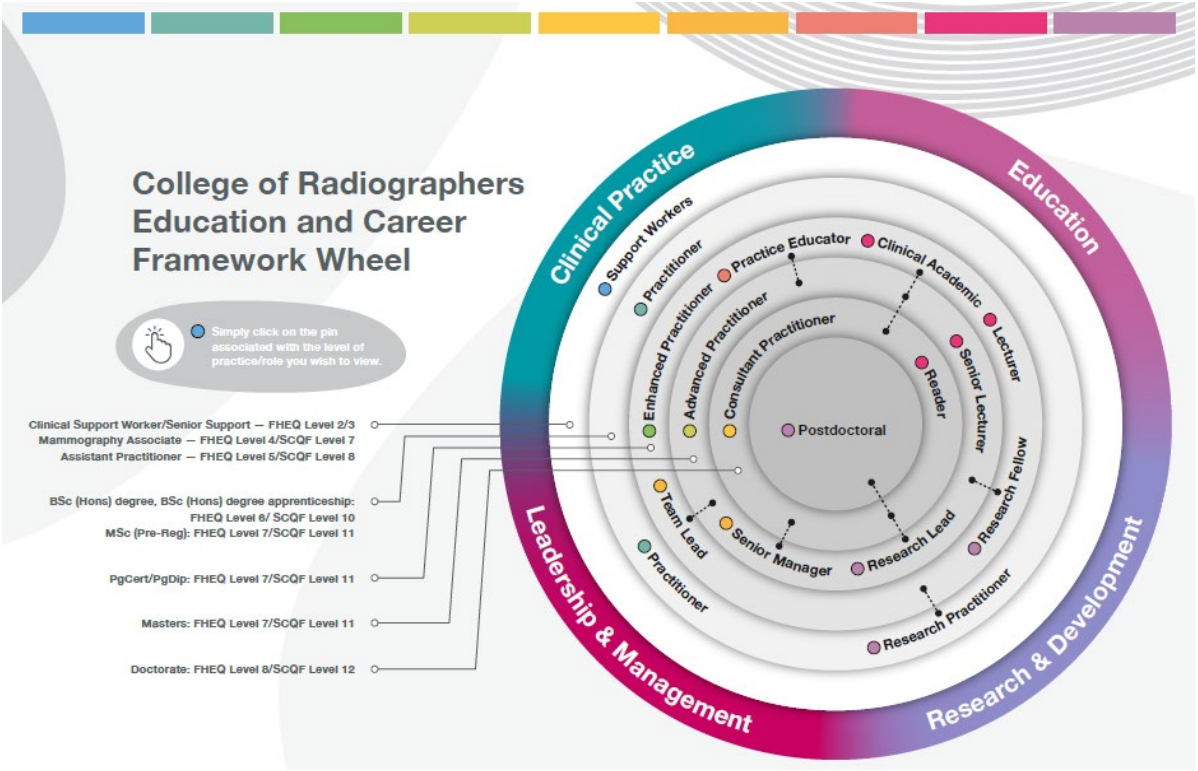
Clinical Academics Programme @ UWE

Interprofessional learning through mass incident Simulation events

Future Education models for our profession

Co-creation is key and crucial to our healthcare education programmes and research





College of Radiographers, 2022

Creating a stronger identity and promoting diversity within our profession

- Bringing together the element of the CoR Education Career Framework (2022) to ensure our future curricula include:
  - *Non-standardised / diverse Patients*
  - *Students from diverse backgrounds*
  - *Local special interest groups/charities from local regions*
  - *Clinical and community partners*

- Recognising the value and impact of the CoRIPS – Personal feedback
- Recognising and celebrating diversity in leadership roles and promoting the positive value of emotional intelligence (Lewis et al, 2017)
- Ensuring future research fields continue to be collaborative, multi-disciplinary and solve societal challenges
- Promote clinical and academic pathways that truly embed practice and challenge how education curricula is designed, delivered and assessed.

Creation of the third space learning and assessment environment

- Development of hybrid approaches to learning, assessment and pedagogical design within health and care programmes.
- Mirroring ways of working within practice and taking the essence of the NHS People Plan / Long Term Workforce Plan (NHS England, 2023)
- Creating spaces where testing, experimenting, creating sense and providing spaces where failure can also be played out and reflection exists
- Students as true collaborators working alongside clinical technicians, patients/service users etc.
- Creating alternative workforce pipelines, to include Degree Apprenticeships and T levels are becoming more significant.

Cardio-physiology and PG Ultrasound students using haptic feedback U/S simulation equipment

Reflections & closing remarks

- Core elements of being a Radiographer have remained active and embedded within all aspects of my professional identity over the last three decades.
- The College of Radiographers has shaped who I am professionally and personally.
- Being an advocate for others is important, especially for those who are underrepresented.
- Valuing all members of any team creates an environment for success.
- Being first to disrupt and create an alternative state requires bravery (Linda Hill, 2014).
- Technology and the associated innovation that may arise from implementation requires a patient-centred social construct.
- Radiographers' future positioning involves greater MDT / Public Health work / Community-based activity.
- Authentic leadership, creating diverse followship and shouting loud about our profession is paramount.

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