The Fourth Industrial Revolution.
Is the UK healthcare system ready?

David Docherty

CEO National Centre for Universities and Business

Setting the scene:
National Centre for Universities and Business

AMBITION	Working to make the UK the best place in the world to do university-business collaboration
REMIT	Increasing the volume, quality and intensity of university-business collaboration across the UK
FOCUS	Driving more innovation and effective graduate talent development through collaboration
TOOLKIT	Unique high level business leadership network, digital brokerage and guidance, high quality success stories, independent research and analysis, collaborative change management programmes
SUPPORT	120 corporates and universities, and UK-wide funding from the four higher education funding councils, research councils and Innovate UK

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The Digital Healthcare & Healthy Living Task Force

In response to the growing challenges, The National Centre of Universities and Business established a task force to review and make recommendations on potential methods by which government, employers, businesses and universities and integrate and collaborate to maximise the benefit to the UK of this emerging ecosystem.
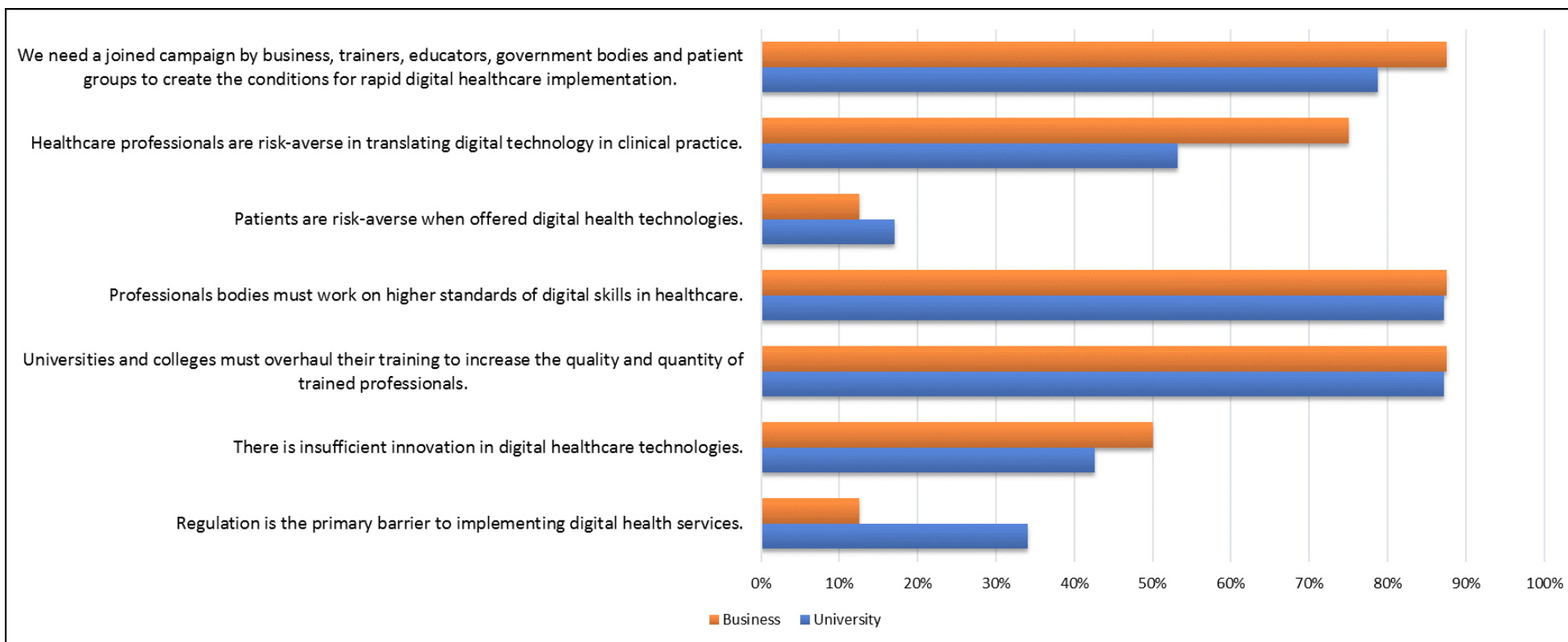
National Centre
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Professor Sir Leszek Borysiewicz

John Jeans

Beverley Bryant

Co-Chairs

National Centre
for Universities and Business

Chart showing Business and University responses (as percentages) to the following statements:

Statement	Business	University
We need a joined campaign by business, trainers, educators, government bodies and patient groups to create the conditions for rapid digital healthcare implementation.	~88%	~79%
Healthcare professionals are risk-averse in translating digital technology in clinical practice.	~75%	~53%
Patients are risk-averse when offered digital health technologies.	~13%	~17%
Professionals bodies must work on higher standards of digital skills in healthcare.	~88%	~87%
Universities and colleges must overhaul their training to increase the quality and quantity of trained professionals.	~88%	~87%
There is insufficient innovation in digital healthcare technologies.	~50%	~43%
Regulation is the primary barrier to implementing digital health services.	~13%	~34%

Legend: ■ Business ■ University

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More than a game?

- Digital therapies have demonstrated clinical benefit.

- The UK is number 2 globally in the use of digital games for mental health.

- There is a serious digital therapy skills gap in the NHS that will undermine is delivery in mental healthcare

- There are significant market opportunities for healthcare and tech firms in the UK, but global competition is moving at a greater speed.
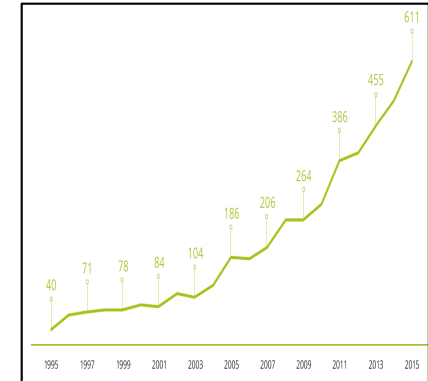
Academic publications reviewing the use of digital games for mental health by year.
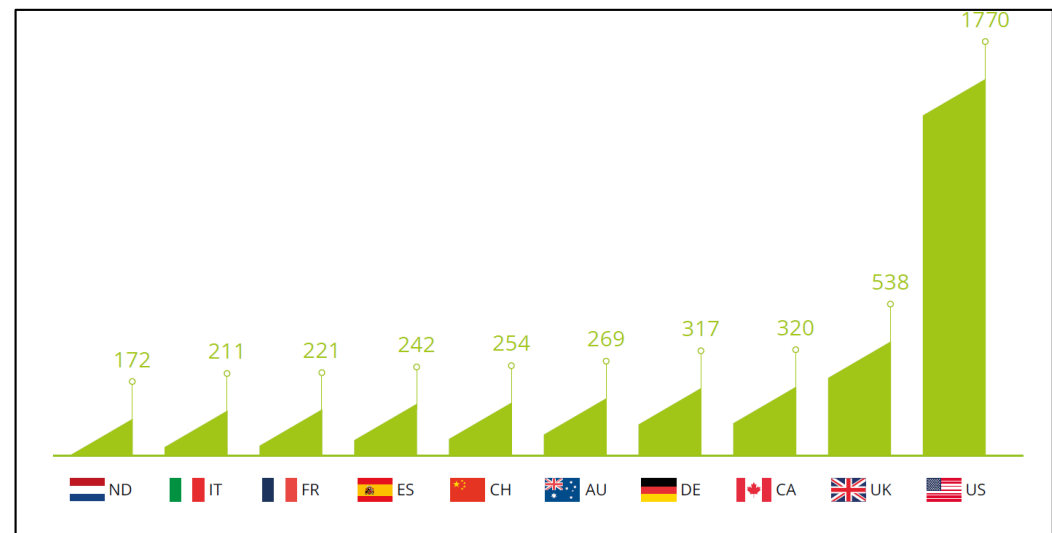
Academic publications reviewing the use of digital games for mental health by country and territory.

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More than a game? Recommendations

Serious gaming and interactive technologies must be integrated into the training and development of the next generation of HCPs.

DOH, NHS, Innovate UK should work with the interactive media trade associations to establish a standing network of therapeutic specialists and commercial developers.

UKRI should fund a multi-disciplinary programme on serious games for mental healthcare.

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Is there a skills challenge impeding change?

- Although health professionals may be digitally mature, the system itself remains relatively naïve;
  - 16% of organisations ensures adequate resources are available for technology implementation and change management.
  - 18% of trusts provide healthcare professionals with digital access to all relevant diagnostic test results and images for patients under their care, including those undertaken by other local providers.
  - 30% of patient flow is tracked digitally in real-time across all departments and sites to identify bottlenecks and delays.

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Conclusions

How do we create a campaign to drive digital health skills into the system?

How can we mobilise the 'digital natives' and use their innate understanding of technology to drive change in a 'digital immature' system?

How do we manage risk and failure in a complex healthcare system?

How can we ensure that UK businesses & university collaboration thrive in the next generation of healthcare provision?

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