

The national picture on digital transformation and education

James Freed
NHS Digital Academy
@jamesfreed5

What does the Digital Academy do?

We **research, design and deliver educational products**, from two-hour online training courses to year-long Diplomas; learning frameworks to fellowships; board sessions to self-managed learning.

These products help the NHS to **buy, build, implement and use technology** and data systems better.

Each product is researched, designed, tested and iterated to **deliver measurable value** to our learners – and ultimately the patients, colleagues, public and taxpayers we serve.

Our existing learning products



Digital Boards



Digital ICS'



Digital Health Leadership



Topol Fellowships



Digital Self-Assessment Tool



HFMA e-learning



AHP e-learning



Digital (First) Best Practice



UCD workshops for teams



Product management



AI awareness



Modelling Associate Programme



Clinical Safety



DSD Network Delivered

Q1

Why are Digital Skills needed?

“So if you have a knee complaint and you want to self-refer...to the musculoskeletal service, traditionally you would have been asked a few very basic questions over the phone and we would have had to have spent probably 40 hours a month manually triaging this and so senior clinicians doing the triage and trying to come up with an appropriate outcome. Whereas now...we've got 90% of our self-referral patients go through the digital triage.” - Physiotherapist*

Powered by digital or

Integrated circuit chips (1971-2016) Our World in Data
The number of integrated circuit chips doubles approximately every two years, a phenomenon known as Moore's Law. This chart shows the number of integrated circuit chips produced in the United States from 1971 to 2016.

97% of survey respondents agreed that technology has the potential to support the work of the NHS.

Data source: Wikipedia (https://en.wikipedia.org/wiki/Transistor_count)
The data visualization is available at OurWorldinData.org. There you find more visualizations and research on this topic.

Licensed under CC-BY-SA by the author Max Roser.

But 70% of Digital Initiatives fail

“Technology is brilliant; it improves efficiency and effectiveness of performance, encourages collaboration and reduces travel. However, when it doesn’t work (for example, when you are unable to access your folders or files or the VPN connection goes down or your security certificate doesn’t allow you to connect), that is problematic and impacts daily working” Commissioning and Transformation Manager

- McKinsey

“I have to be honest to say sometimes digital technologies have been introduced and have made things worse.” - Educationalist

Key results

not deliver

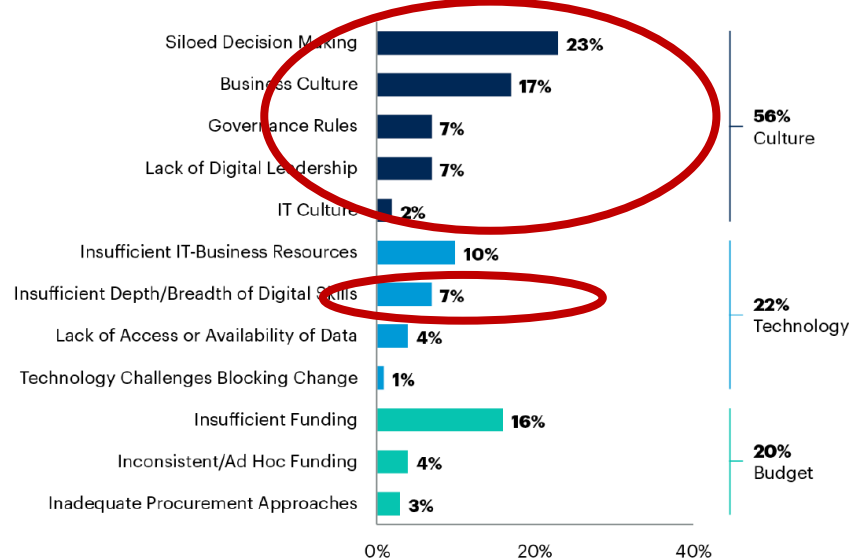
not deliver

Why is the Academy needed?

...and 63% of those failures are due to cultural or skills deficit reasons

Digital Transformation Challenges in Government

Percentage of Respondents; Rank One



n = 166 total answering

98% strongly agreed that 'digital skills will be important for my job in the next 5 years'.

Why is the Academy needed?

95% x 70% x 63% =

40%

Of all change activity in the NHS could be changed from failure to success if people behaved differently

These behaviour changes, brought about (in part) by education that can change **capability** and **mindset**, are what we define as 'digital skills'

Why

"Huge number of logins, different for each and every application I need to use, so I spend an enormous part of my day just logging in, or updating passwords. Very few applications seem to interface with each other well."

Consultant

"The previous software, it kept crashing. It would freeze a lot. It was slow. It just wasn't really fit for purpose, so it meant that often you'd lose notes if the software crashed...."

Dentist

"You cannot write a lengthy document on [the digital system] for fear of it crashing, so documents have to be written in word and then copied and pasted in which takes more time."

Screening Co-ordinator

Real-world

"I mostly work from home but when in work, the speed of the internet is glacial. Things that take me 10 minutes to do at home, can take up to an hour in work."

Educationalist

and data processing

e.g. Poor-quality data input

"Joining the dots across health and care 38 IT systems - eg System One, Emis, EPR, Badgernet and none of them talk to each other. This is a real risk issue as not having full records available in community for safeguarding and medical reasons."

Community Midwife

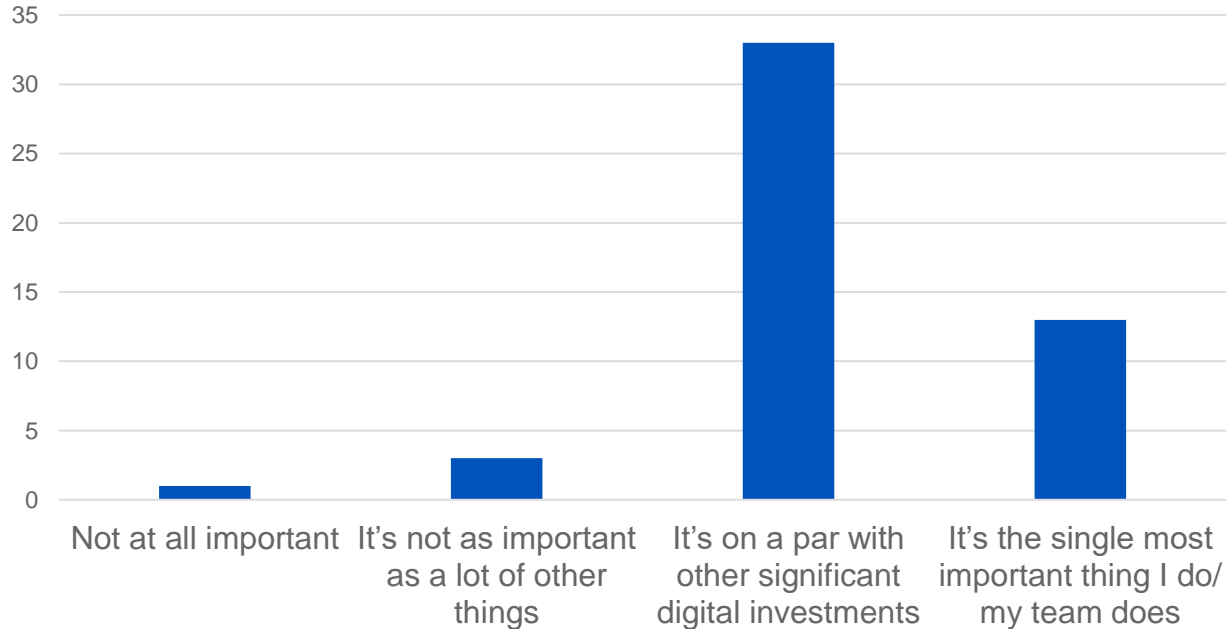
decision-making

e.g. Lack of MDT decision-making

Why is the Academy needed?

Digital Leaders agree digital education is a priority

CIO and CCIO view on the importance of Digital Capability investments



Q2

How do we deliver more value with digital?

What did the Learning Needs Analysis do?

User research into the **problems** felt in getting value from digital and data and where **education** can most help.

Reached saturation with 60 interviews and 550 survey responses.

Reiterated challenges around digital and educational infrastructure with knock on effects on the workforce and the people we serve.

Identified nine hypotheses where education can most help.

All our problems...

1. Foundational challenges

Outdated and ineffective tech

Fear and lack of confidence
Unequal access to tech and training

Negative culture around tech and digital skills

Lack of cross-professional understanding

Lack of senior understanding

Inadequate resources

Poor training

2. Challenges around systems

- Systems do not meet user's needs
- Lack of interoperability
- Ineffective roll-out
- Safety concerns lead to poor impact

3. Challenges with data and data processing

- Poor quality data input
- **Difficult to input data well**
- Too few DDaT professionals

4. Challenges around decision-making

- Evidence/ data-based decision-making
- MDT decision-making
- **UCD in healthcare**
- Procurement
- Market-understanding
- **Use of AI to facilitate decision-making**

CORE PROBLEM STATEMENTS IDENTIFIED BY ACADEMY RESEARCH

***Use
digital
(and data)
better***



How do we support our NHS colleagues (at every level) who lack confidence and competence in using the tools, data and technology needed to do their jobs and deliver great internal and external services?

How do we support colleagues who lead, procure, build, implement and iterate our digital products and services in a way that is user-centred and delivers maximum value?



***Make
digital
more
usable***

Learning Needs Analysis

Hypotheses	User group
Basic digital skills for all would support better working for all	All Staff
Better data input will unlock transformational insights and increase trust in data	All staff
Increased training for Digital Champions will help support digital skills	Educators
Resources and training for Digital Educators will scale their ability to provide individualised digital upskilling	Educators
Improved digital and data leadership at board and senior leadership level will unlock multiple downstream digital benefits	CIOs and the Board
Training people involved in commissioning to understand discovery will result in better systems	Budget holders
More data analytical skills are needed to enable evidence-based decision making	Budget holders
Clinical staff who understand digital can more effectively support decisions and advocate for user needs	DDaT staff
Clearer career pathways for DDaT professionals are essential to future NHS functionality	DDaT staff

Logic model

Mission

NHS Services deliver more value more quickly through access to the right skills, data and technologies.

Outcomes

All NHS staff have the confidence + competence to use digital technologies and data as they need to perform their roles.

Digital technologies and data are available and usable and designed to meet the needs of both users and the organisation.

Educators can contextualise and deliver NHS Digital Academy learning products, supported by NHS Digital Academy infrastructure.

Leaders and influencers create the right digital culture and make the right digital decisions.

DDaT professionals are trained and developed and DDaT skills retained/increased across NHS.

Managers and budget holders make changes to their services, including procurement of digital technologies, that meet users' needs.

Q3

What are DSDNs doing?

DSDNs provide a lot of education

Region	NW	SE	SW	Lon	Mid	Y&H	NE	Nationally
No. of Personal Training courses	38	40	1	47	9	61	22	218
People reached	298	33	7	221	101	254	70	984
No. of Prof/Tech Training courses	39	46	2	61	35	44	39	266
People reached	396	45	18	450	313	465	52	1739
No. of Business Skills Training courses	5	19	6	4	7	30	15	86
People reached	22	12	101	12	70	141	81	439
No. of Mgmt & Ldrship Training courses	3	0	3	4	10	14	5	39
People reached	25	0	96	30	99	75	15	340
No. of courses offered	85	105	12	116	61	149	81	609
No. of people trained in 22/23	741	90	222	713	583	935	218	3502

Q4

How can we best work together?

A beautiful collaboration

DSDNs are particularly effective at reaching Digital, Data and Technology professionals and non-DDaT staff who need some DDaT skills

Improving the clarity of our collective educational offer requires a common language about roles, skills and career pathways (DDaT+)

Improving the quality of our collective educational offer will require us to collaborate on outcomes, measures and quality standards.

Thank you

england.digitalacademycentral@nhs.net

