

digitalhealth

REWired

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Headline Sponsors:



Dr. Hatim Abdulhussein

National Clinical Lead for AI and Digital Workforce –
HEE

Medical Director – KSS AHSN

Changing the conversation on AI

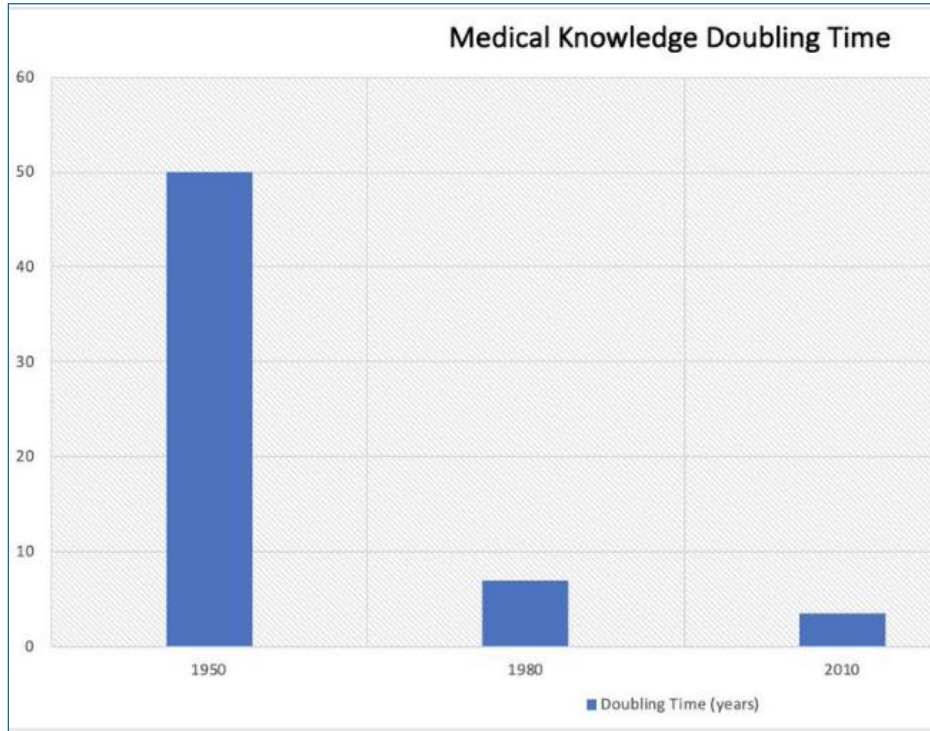
Workforce Perspective



A need for new tools



Exponential rise in medical knowledge

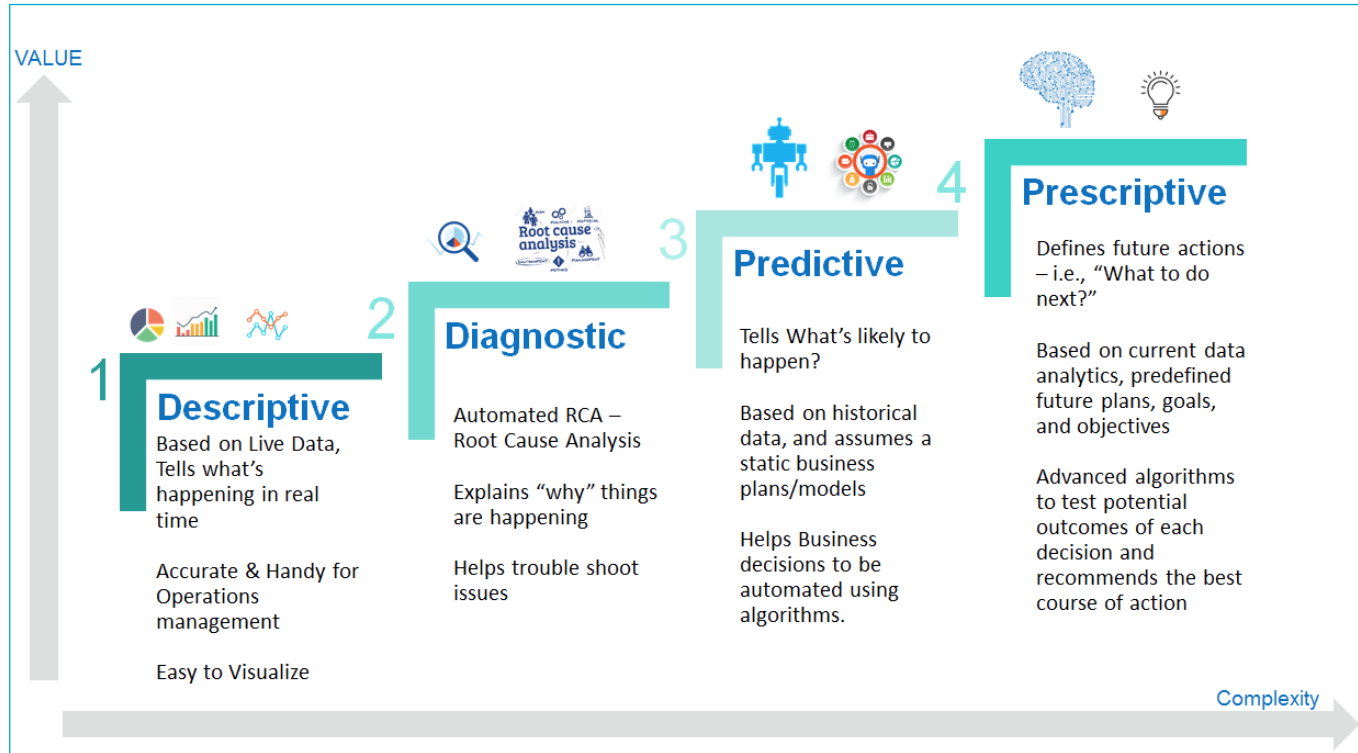


2020 = 60 days

Need for automation of tasks



Analytics Continuum



Improving medical education and training



HEE's DART-Ed programme

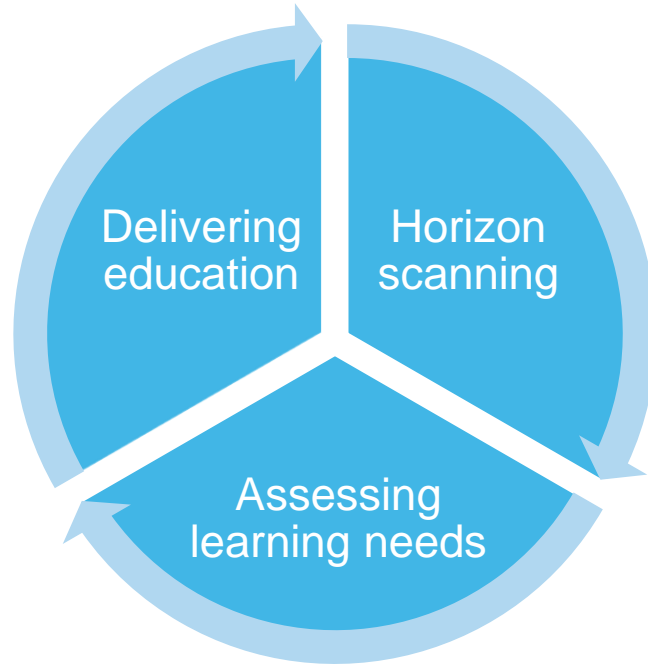
Digital, AI and Robotics Technologies in Education

- Delivering recommendations from the Topol Review:

Educational resources should be developed to educate and train all healthcare professionals in: health data provenance, curation, integration and governance; the ethics of AI and autonomous systems/tools; critical appraisal and interpretation of AI and robotics technologies



Impact of AI and Digital healthcare technologies on education and training

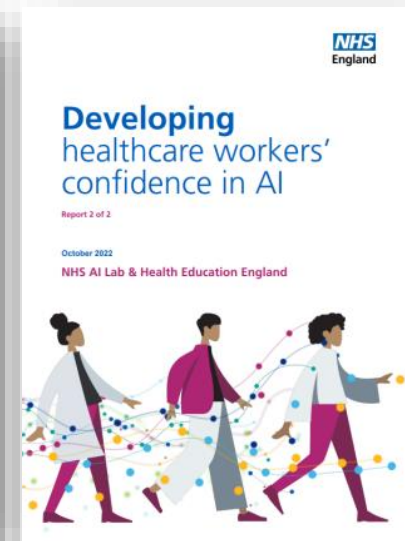
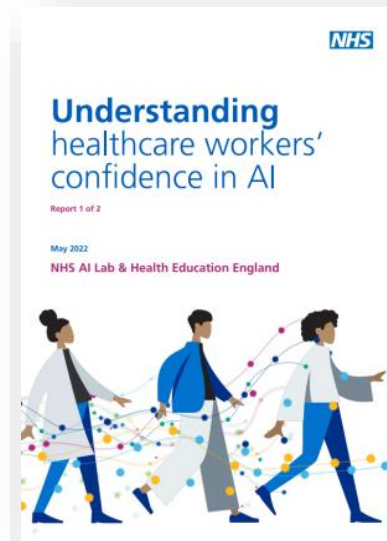


AI Roadmap Methodology and findings report

January 2022

This report and associated dashboard allow us to understand the landscape of AI and data driven technologies that currently exist in healthcare. Their taxonomies, spread and adoption, and the potential workforce impact of these technologies.

AI confidence in healthcare



Introduction to the capability framework

6.0 Artificial Intelligence (AI)

AI refers to the ability of machines to mimic human intelligence or behavioural patterns. In practice this often refers to the automation of various activities that involve tasks like finding patterns in data, and making predictions.



LEVEL 1

A. I understand that AI is an umbrella term used to define digital technologies capable of performing tasks commonly thought to require human intelligence. I am aware AI is common in modern technology and can list uses of AI outside healthcare (e.g. voice recognition, recommender systems, self-driving cars, image and video processing)

• S • D • C • E • U

B. I can provide examples of AI systems used in healthcare and understand their potential benefits and risks (e.g. imaging diagnostics and decision support tools)

• S • D • C • E • U

C. I am aware that "machine learning" is a subset of AI and is an umbrella term used to refer to techniques that allow computers to learn from examples/data without being explicitly programmed with step-by-step instructions

• S • D • C • E • U

LEVEL 2

D. I am aware that all AI applications in healthcare are defined as 'narrow' AI that are trained to perform a particular and specific task

• S • D • C • E • U

E. I can identify the contribution that AI could make to healthcare processes in my area of practice and how it has potential to benefit the organization, workforce and patient

• D • C • E • U

F. I can articulate the risks and limitations of AI relevant to my professional area and consider them in my use of AI

• D • C • E • U

LEVEL 3

G. I can explain intellectual property issues pertaining to AI models and how this impacts on AI algorithms co-developed between the NHS and commercial providers

• D • C • E

H. I can define the sub-fields of AI and machine learning and their key applications (e.g. computer vision, audio processing, knowledge representation, natural language processing, expert systems)

• S • D • C • E • U

LEVEL 4

I. I can describe the main types of bias that could affect AI systems (e.g. reporting, selection, group attribution, implicit)

• D • C • E • U

J. I can take steps to identify and mitigate bias in AI systems, such as designing models inclusively (human centred design approaches), training with representative data and testing for bias

• D • C • E

K. I understand the importance of and promote transparency of AI models used within my area of practice. For example, identifying the type of model used, training data, methods and potential model limitations and weaknesses

• C • E

L. I understand the benefits and limitations of AI explainability. I keep abreast of research and developments in this area and am aware of the potential impact on confidence in clinical decision making

• C • E

Next steps

- Ensuring the framework is kept live to advancements and developments in this area
- Embedding the framework into existing Health Education England learning platforms or tools to enable learner use
- Working with educational bodies (colleges and higher education institutions) and professional regulators (GMC, NMC etc.) to support curricular and educational reform

Thank You



Hatim.Abdulhussein@hee.nhs.uk



[Dr_Hatz](https://twitter.com/Dr_Hatz)



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