AI IN RADIOLOGY COURSE: A DEANERY WIDE EXPERIENCE

Piyush Varma[1], Matt Townend[1,2], Timothy Cootes[3], Anubhav Datta[1,3,4]

[1]North West School of Radiology, U.K.; [2]King's College London, U.K.; [3]The University of Manchester, U.K.; [4]Clinical Radiology, The Christie NHS Foundation Trust, U.K.

The University of Manchester

NORTH WEST IMAGING ACADEMY
NORTH WEST SCHOOL OF RADIOLOGY

PURPOSE

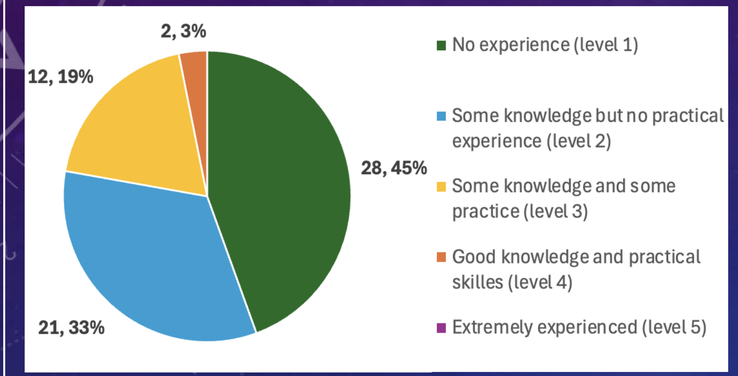
- Integrating AI into radiology can transform clinical workflows, enhance diagnostic accuracy and improve outcomes [1].
- Effective implementation requires specialised training for radiologists to use AI tools [2].
- We outline the design and delivery of a deanery-wide 'AI in radiology course'.

METHODS AND MATERIALS

- The course was structured around the RCR 2021 Clinical Radiology curriculum. It covered the fundamental principles of AI, with emphasis on radiological application.
- The day's program combined lectures, case studies and interactive labs.
- Pre- and post-course questionnaires assessed understanding, knowledge and confidence. Matched surveys were used to analyse cohort-level trends.

RESULTS

- Eighty-four ST1 trainees attended the course across 3 years (2021 – 2023). Sixty-three complete self-assessments were available for analysis.
- Majority of the trainees (n = 49; 78%) identified themselves as novices (levels 1 and 2; *Fig 1*). This group reported a significant improvement in AI comprehension and practical proficiency (*Fig* 2). A minority of this group found the course material too advanced. Feedback highlighted the value of hands-on training, while also identifying the need for continuous learning to keep pace with technological advancements.
- A small focus group (n=35) expressed mixed opinions about the perceived impact of AI in clinical practice (*Fig 3*), with considerable anxiety around future job security. Thirty participants (86%) either 'agreed' or 'strongly agreed' with the statement : "AI will enter clinical radiology practice within the next 5 years."



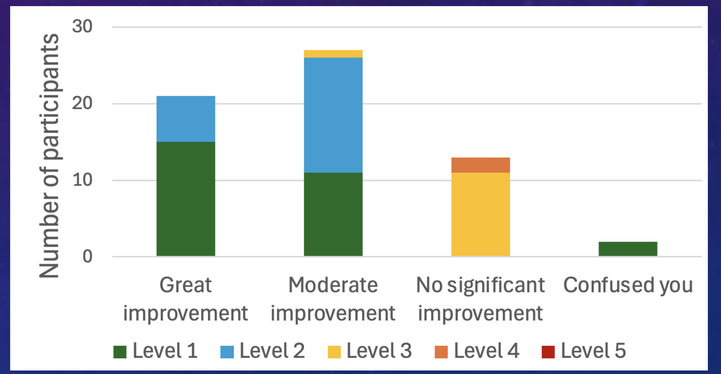




Figure 1 (left): Prior to attending the course, the attendees (n=63) were asked to self-rank themselves on a 1-5 scale. *Figure 2 (middle):* Matched post-course self-assessments of the participants (n=63) measured course effectiveness. Figures 1 and 2 share the same colour key to designate experience levels. *Figure 3 (right):* A focus group of trainees (n=35) were asked to use one word which best described their feelings about the future of AI in radiology.

OVERVIEW

There is an unmet and growing demand for trainee education in radiology-related AI. An interdisciplinary approach is required to bridge the gap between theoretical knowledge and its clinical application. Our experience offers a successful model for the development of similar programmes in the future.

REFERENCES

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2. Langlotz C et al. (2019). A roadmap for foundational research on artificial intelligence in medical imaging: From the 2018 NIH/RSNA/ACR/The Academy Workshop. *Radiology.* 291(3), 781-791.

Email : anubhav.datta@manchester.ac.uk