PERSPECTIVES

Digital health – a trainee's perspective

Author: James Maguire[A]

ABSTRACT

As we shift towards using digital systems, and they play an increasing part in our working lives, the role of the clinician in their development and implementation will become even more important. To ensure our clinical staff have the required digital skills, we need to increase awareness of the digital opportunities available to them during clinical training. We also need to get comfortable with employing a range of tools (such as quality improvement methodology) to maximise the impact of digital technology projects.

KEYWORDS: Trainee, QI, training, digital

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Introduction

I was fortunate to start my foundation training at a hospital with a comprehensive electronic patient record. This wasn't common at the time and I definitely took it for granted. It was only when I moved on that I started to understand the major impact that this single piece of technology had on me, my colleagues and, ultimately, our patients. The shift towards digital technology since then has been incredible and has changed almost all parts of our lives, but life as a clinician hasn't always kept pace. Pagers, prescription pads and even fax machines still play a part of our working lives despite the rest of the world moving on.

As a frontline clinician, I've learnt that digital technology can be one of the best tools to drive change and bring about improvements in care. But it's also important to recognise that there are challenges in ensuring products are properly designed and implemented. This is especially true in my field, geriatric medicine, where there are specific considerations around accessibility and usability. To get this right, we need to get comfortable with employing a range of tools to digital technology projects, the most important being quality improvement methodology.

My work at NHSX is focused on how we can start to improve the working lives of health and care staff using technology. This isn't just about getting rid of outdated technologies or implementing new apps but also about using existing technologies in better ways. While there are some key pieces of work to be done nationally, it's clear that a lot of this change needs to be and can be led at a local level to maximise their impact.

To support our digital teams in doing this, we need to equip more of our clinical staff with digital skills and expertise. Other fields (such academia, education and leadership) have already recognised the importance of developing these attributes from an early point in clinical training. To achieve this, we need to substantially increase the range of digital opportunities available for those in clinical training.

Clinicians in digital health

It can be difficult to exactly define the role of clinicians in digital health. Practically speaking, we are involved in different ways and it's also common for our roles to change over time as a project develops. Clinicians often take on a number of key responsibilities, including helping to lead organisational change and the management of critical clinical safety processes.[1] Another common feature is that we help to bridge the gap between clinicians, patients, managers and digital teams, groups that can have different needs and priorities from technology and may express themselves in different ways.

Learning to juggle priorities is part of the bread and butter of clinical training, and we develop a range of other skills which also lend themselves to working in digital roles. I have often drawn on my experiences of working as part of a multidisciplinary team, learning to value and trust in the expertise of others. In addition, our ability to communicate and engage with patients and our clinical colleagues is invaluable for digital teams.

There are also huge benefits for the clinicians themselves. Digital roles develop an array of transferable leadership and project management skills as well as experience in more commercial aspects such as contract negotiation and procurement. Probably my biggest lesson has been to approach problems in a different way - acknowledging my own limits and learning to use collaborative working and the sharing of ideas as tools to tackle complex problems.

I'm part of a growing group of clinicians choosing to take time out during their training to develop digital expertise. For me, it has made sense to start gaining this experience now rather than waiting. While finding the right balance hasn't always been easy, it has made me appreciate my clinical work even more. As the recent *Topol Review* described, we should expect digital systems will play an increasing part in our working lives.[2] The role of the clinician in their development and implementation will become even more vital. Ultimately, this means there needs to be more opportunities available for clinicians in training to gain experience in digital and they are supported in pursuing them.

Author: [A]clinical lead and geriatric medicine and general medicine registrar, Mission One (NHSX), and Guy's and St Thomas' Hospital, London, UK

Box 1. Examples of potential digital quality improvement projects

- Admissions 'take' list
- Documentation pro formas
- Ward round checklists
- Clinic letter templates
- Implementing a new system

Digital quality improvement

Recent years have seen an increased focus on quality improvement (QI) in clinical training (Box 1). The completion of a QI project is now an essential part of the curricula of all foundation doctors.[3] Digital tools increasingly form the main intervention in these projects, a trend which needs to be encouraged as they have the power to make significant and long-lasting impact. Too often though, I have seen them developed and implemented without following QI methodology, significantly reducing their effect.

Looking back, the first project that I led which had a genuine impact was the development of an electronic pro forma to improve lumbar puncture documentation. One might assume another documentation pro forma wouldn't be popular, but we saw a huge surge in its use. The key was that it fulfilled another need, it simplified the work of finding and ordering the correct tests. For months afterwards, colleagues suggested changes and ideas for other tools. Unfortunately, I never joined the dots and didn't apply QI methodology to the problem because I had perceived it to be a technology project.

In reality, The Institute for Healthcare Improvement (IHI) 'Model for Improvement' is a commonly used QI tool.[4] Viewed through this lens, the digital nature of our tool was irrelevant. Its introduction should have marked the beginning of the project, with further steps to obtain feedback and to help guide development of the product. This approach allows technology to bed down in otherwise complex clinical situations.

Another bonus of using technology in QI is that you can start to access data in real-time. Too often, junior clinicians have needed to collect data manually which is time consuming and shifts their focus away from making real improvements. As organisations become increasingly digitally mature, we need to ensure clinicians can readily access the information they need to participate in QI, ideally in the form of time series data, which is the gold standard for improvement.[5]

Conclusion

The recent response to COVID-19 has made us consider how we can deliver health and care differently. There is an opportunity to shift towards using digital first, rather than it being an afterthought. We should embrace this, as digital systems will ultimately allow more flexibility for both patients and clinicians. To get this right, we need to ensure there are adequate opportunities for clinicians to develop the skills they need to succeed in digital throughout their training. ■

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Address for correspondence: Dr James Maguire, Guy's and St Thomas' Hospital, Great Maze Pond, London SE1 9RT, UK. Email: jmaguire86@gmail.com