Introduction
The Changing Landscape of Mental Healthcare

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Mental health is a sector that is ripe for digital disruption.

Rebecca Cotton, 2017[1]

Over the past 20 years, we have seen a dramatic shift in how we conduct our daily lives. With digital shopping, ordered items are delivered the same day and communicating is easy with distant family. The years 2020–22 and the global pandemic brought an escalated pace of change, including in healthcare with vaccine appointments booked online.[2] However, the same cannot be said about mental health services where the experiences of both delivering and receiving help lags behind.

This issue was raised by Rebecca Cotton, Director of Policy at the Mental Health Network, in the publication quoted above. If you ask the question 'How much has mental health changed in the last 20 years?', we expect that, like her, your answer will be that it hasn't changed much! Some parts of medicine have, such as how we view radiology images online or how medication is ordered from a GP, but much mental health work is still paper based, delivered in a clinic room and communicated by post.

When home computers became more affordable, several people shared a vision for 'a computer on every desk' – and it could be argued that this has largely been met.[*] There are some important exceptions, but most people now have access to a computer or smartphone. Increasingly, there is access to electronic media in your clinic room; however, it is rudimentary in what we can do with it beyond accessing the Internet or writing and viewing clinical case notes.

A Promised Land?

This book aims to cover the next 10 years, largely looking at what mental health services can reasonably achieve. There may well be a computer in most clinic rooms, but can it do what it needs to do quickly and easily, does the Electronic Health Record (EHR) help or hinder what needs to be done and can service users benefit digitally from other supports and services?

This book is commissioned by the Royal College of Psychiatrists; however, it is aimed at all mental health professionals and other interested parties. The College last wrote a book on *Computers in Psychiatry* 15 years ago and this needs significant updating.[3] There has been an Informatics Committee at the College for many years,[†]

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[*] Bill Gates, the founder of Microsoft, said this in 1989, but there are earlier mentions.

[†] The Informatics Committee of the Royal College of Psychiatrists meets around three times a year to discuss issues relating to the use of technology, data and information in healthcare, as well as mental

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which meets termly and has a good representation from across the UK. It is made up of 'clinical informaticians' (digital leaders who are also clinicians) in their own trusts and health boards who are leading the way in digital transformation. Some are at executive level, some are academics and some are front-line clinicians but all want to make sure that the tools are right for the job.

Rebecca Cotton's report makes it clear that technology is the most scalable resource we have and must be seriously integrated in a time of rising demand. Bringing incremental efficiencies to current non-digital pathways will not meet this demand and so innovation needs to be key to how we develop, with much of that innovation being digital in nature.

She also talks about changing expectations in how people access services. For example, they expect 'digital first' and often cannot understand why we still send letters. There will be three main areas of development:

1. Local services – the hardware that every clinician should have easy access to, the systems and processes used, making use of smart and well-designed systems to improve the care delivered.
2. The evidence base – using 'big data' to see the big picture to inform both policy and service development but also real-time clinical decision making.
3. Population mental health – empowering service users and those who support them to self-help, self-determine and prevent mental ill health.

This last area changes so fast in the products that are available and ever-increasing functionality. This includes 'wearables', apps and handheld medical 'devices', which anyone can use to gather increasingly sophisticated information and data about themselves or their families. However, it is not clear who is regulating these, how safe are they, how reliable is the data, who is interpreting and (most importantly) who 'owns' the data?

The next decade is set to be biggest growth area in business and financial investment. Venture capital investment in healthcare technology in the United States doubled from 2019 to the 2020 figure of $14 billion,[4] and a large proportion of that was for mental health ($2.3 billion).[5] Where physical health tech investment has plateaued, mental health tech investment continues to rise, with $5.5 billion spent in 2021. We believe that this investment will drive transformation and innovation in all fields of mental health that is long overdue.

The Changing Landscape

There are many aspects to digital mental health and we will aim to cover most of them. Key topics include technology-enabled care (where computers deliver mental health interventions) and going 'paper-free' to use fully digitised clinical records but ensuring these are fit for purpose. Digitised records then allow for big data (analysing huge datasets as a new way of doing research) and developing technologies like artificial intelligence (with all the ethical questions it throws up). We consider whether we need a new breed of psychiatrists (digital psychiatrists, to help us navigate and change) and the challenge of joining up systems that talk helpfully to our colleagues in social work and beyond. Importantly, we look inwards to the effect technology can have on our own mental health and what digital wellbeing looks like.

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health informatics in particular. Members of the Informatics Committee also represent the College at external events and advise on matters of special interest to the Committee. More information is available on their webpage – www.rcpsych.ac.uk/about-us/our-people-and-how-we-make-decisions/other-committees/informatics-committee.

The Landscape Is Rocky

If all this is so wonderful, how come it isn't already happening? Many of us work for the National Health Service (NHS), which is known to move slowly in many areas, but there are some particular rocks that will need to be navigated around.

A major one is that no one has ever done this before. We have had paper for several millennia and in bulk since the printing press was invented in the mid-1400s, but computers have only been in healthcare for several decades. People are concerned about, and have very good questions about, things that they do not understand – the costs as well as the benefits and concerns about information governance.

Service user and professional groups are also concerned about the digital divide,[‡] as whilst most have smart devices and high-speed internet connections, some do not – including some of our more vulnerable service users. Set against this are the benefits we will outline in this book: perhaps they will bring us enough efficiencies that we can more directly help and support those who currently cannot take part.

Who Should Travel This Road?

The purpose of this book is to bring about a change in perspective. We want to highlight the areas ripe for development and support a shift in the mindset of *all* of our workforce that better information, data and digital technology is a core part of mental healthcare.

This book is primarily for mental health professionals. It will aim to provide an overview of the digital mental health landscape to enable you to feel sufficiently empowered to join in, critique and become a driver for change in your local organisation or region. It will also be of relevance to other related groups – patients and service users, other health professionals and those in social care. These are roads that we will be travelling together, keeping each other accountable and sharing what we have learnt.

What Is My Role on the Team?

For some of us, this will be the main focus of our career and the main way in which we impact upon those around us and we have devoted an entire chapter (Chapter 6) to developing digital clinicians, but for most healthcare professionals it will just be a topic of increasing relevance. It is an area that needs us all to engage with, so that it can become a helpful part of our working lives and we can critique it with confidence.

In the Conclusion, we give more detail about how to become involved, but here is a brief list. Some of the terms may make more sense after you have read the book.

- Learn more about the area: most mental health developments, work tools and also conferences will have a digitally focused theme.
- Do a quality improvement or audit project that requires data to be pulled from a Health Information System (such as your EHR).
- Speak to local academics who research big data and assist with a project.
- Submit a 'challenge' to your local innovation team and see how they increasingly can engage with technology firms for a solution.
- Have a coffee with the clinical lead for digital in your organisation – there will be one!

[‡] For information on the digital divide, see https://en.wikipedia.org/wiki/Digital_divide.

- Try video consulting/telepsychiatry – even if just a test call with a friend. Then try it in your job.
- Talk to a colleague in social work or the third sector and explore how your digital systems compare.
- Find a local debate on the ethics of artificial intelligence and go along. Contribute and share!
- Monitor your screen time on your phone or computer and reflect on how this is affecting you. Check which activities you do most and see if changing this helps.
- For members of the Royal College of Psychiatrists – join the Digital Special Interest Group.[§] For members of other organisations, see if they have a similar group.
- Sign up as a member or associate member of a national group or body (e.g. the Faculty of Clinical Informatics,[**] British Computing Society[††] or similar organisations).

The Digital Horizon

Looking back just over 15 years to the College's last book on this topic, you can see that it would be foolish to look too far ahead! However, there are some tensions we can predict and that need to be resolved.

We need to start by using what resources we currently have access to now, which are largely EHRs and electronic prescribing. We then need to develop them and consider putting teams in place to guide this and support their use as staff skills (digital maturity) will vary. We need good frameworks for governance and good clinical leadership here. This also all costs money.

Also, we need to be mindful about how invasive such technology can be – it may invade our personal space more than ever before, with the promise of easier work–life balance typically not realised. Promised cost savings are typically offset by other costs for hardware, software and training. Just because we can use such technology, it does not mean that we should. Paper and pen will still exist and, more importantly, face-to-face human interaction will remain core to our offer of care.

We hope this will be a wise and encouraging journey into digital mental health. Technology should be used as an enabler and to enhance care, and not used just because it exists.

References

1. Cotton, R. *Mental Health and Digital Technology*. Winston Churchill Memorial Trust. 2017. Available at: www.churchillfellowship.org/ideas-experts/ideas-library/mental-health-and-digital-technology (accessed 10 January 2020).

2. Peek, N., Sujan, M., Scott, P. Digital health and care in pandemic times: impact of COVID-19. *BMJ Health Care Inform*. 2020;27(1): e100166.

3. Lenhian, F. *Computers in Psychiatry*. London: Gaskell. 2006.

4. Micca, P., Gisby, S., Chang, C., Shukla, M. *Trends in Healthtech Investment: Funding the Future of Healthcare*. Deloitte Insights. 2021.

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§ Go to www.rcpsych.ac.uk/members/special-interest-groups.
** Go to https://facultyofclinicalinformatics.org.uk/payments.
†† Go to www.bcs.org/membership-and-registrations/become-a-member/.

Available at: www2.deloitte.com/content/dam/insights/articles/6920_Healthtech-investment-trends/DI_Healthtech-investment-trends.pdf (accessed 6 October 2022).

5. CB Insights. *State of Mental Health Tech 2021 Report*. CB Insights. 2022. Available at: www.cbinsights.com/research/report/mental-health-tech-trends-2021/ (accessed 6 October 2022).