

'an absolute must-own for psychologists'

Aaron Frost

'an essential resource'

Steve Carroll

THE TECH-SAVVY PSYCHOLOGIST

AI and Digital Technology

BRENDAN MEAGHER

and

TAMARA CAVENETT

In a few short years, technological innovation in our profession has accelerated. The linear growth we had become accustomed to has been replaced by an exponential explosion of advances. These developments offer the opportunity to fundamentally change the way that psychologists work and that our clients receive help. There are profound opportunities but also risks and pitfalls. Brendan and Tamara have taken on the daunting task of trying to filter the innovations in the tech space to just those relevant to psychology. They offer a clear and comprehensive review of the field, as well as practical and considered recommendations for those wanting to learn more. This small compendium is an absolute must-own for psychologists who do not want to fall behind.

Dr Aaron Frost, Benchmark Psychology

The Tech-Savvy Psychologist is an invaluable encouragement and resource for all psychologists, whether they are thinking about the next few steps to enhance the telehealth experience or are ready to consider and embrace all that AI and digital therapeutics have to offer.

Sharon Southwell, Clinical Psychologist

Technology used to be a part of our ways of living and working, but over recent years (and especially post-COVID) we have seen a transformational period where technology is a cornerstone to our being. With the amazing developments, if harnessed correctly we'll see great efficiency, connectivity to people in remote and regional areas and modernisation of the health and mental health sectors, like we've seen in other industries before it. We need to embrace the change, especially in the mental health sector where the workforce shortage and supply and demand curve are under pressure – hopefully, technology can enable better care, and more efficient systems and have more people treated than ever before, where and when they need it. This book is an indispensable guide through the ever-evolving landscape of digital technology.

Matt Berriman, Chair, Mental Health Australia

As AI and digital technology become an integral part of our everyday lives, psychology and clinical practice have fallen behind compared to other areas of society that have embraced the technology. *The Tech-Savvy Psychology* is a must-read for all psychologists, whatever stage they are in their careers. This book will help to navigate the challenges faced by psychologists in effectively using AI to enhance their practice. It is an essential resource for all clinicians.

**Dr Steve Carroll, Clinical Director,
Better Outcomes Psychology**

The future growth of the psychology profession is likely to be strongly supported by the further development and wider use of digital technology. This book clearly spells out much of the nature and range of the most relevant developments to date. Brendan and Tamara's diligent and generous efforts make this technology far more comprehensible and accessible to psychologists in a way that will practically advance our profession.

**Chris Mackey, Clinical Psychologist,
Fellow of the Australian Psychological Society,
Author of *The Positive Psychology of Synchronicity:
Enhance Your Mental Health with the Power of Coincidence***

As we progress through the most fundamental change in the way that psychologists ply their trade, it is reassuring to know that two psychologists, Brendan and Tamara, have done the heavy lifting for us in documenting the what, how and when of digital transformation and in a way that is easily readable – in bite-sized chunks so that we don't feel overwhelmed. If you want to feel confident in your approach to technology integration and decision-making, read this book!

**Ros Knight, Former President of the
Australian Psychological Society**

The Tech-Savvy Psychologist is a great addition to your client and practice management tool kit. It provides a structure to work through when reviewing how tech savvy you are in your practice and how you can harness the benefits of digital health innovations safely and at a pace that works for your context. It is a brave move for Brendan Meagher and Tamara Cavenett to publish this guide, as so much is changing quickly in the AI and technology space. Without their guidance, it would be easy to get overwhelmed. Their approach is practical and makes a strong case that doing nothing is not a choice for healthcare providers in the face of technology. I also like the way the authors encourage us to recognise how we are already using technology in our own lives and that without actively engaging with it, we will struggle to deal with compliance costs, consumer expectations and accountability to third-party funders. Be an early adopter of this book – you won't regret it. I think it will become a go-to for a reliable, evidence-based framework and related recommendations that will stand the test of time and make the process of becoming a tech-savvy psychologist something both inevitable but also exciting.

**A/Prof. Kaye Frankcom,
Business Coach to Psychologists**

THE TECH-SAVVY PSYCHOLOGIST

AI and Digital Technology



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and

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● CONTENTS ●

Preface	xi
PART 1: You can become a tech-savvy psychologist	1
Introduction: You and your clients can benefit from digital technology	3
Chapter 1: Are your beliefs about technology holding you back?	18
PART 2: Tools you can use with clients	29
Chapter 2: Assessment tools	33
Chapter 3: Client and psychologist matching	41
Chapter 4: Websites	48
Chapter 5: Apps	54
Chapter 6: Chatbots	75
Chapter 7: Digital therapeutics	86
Chapter 8: Outcome measurement	94
Chapter 9: Wearable health technology	109
PART 3: Tools for running your practice	123
Chapter 10: The digital office	125
Chapter 11: Your website and social media	151
Chapter 12: Additional useful technology	158
Chapter 13: Artificial intelligence in mental healthcare	163
Chapter 14: The exciting future	175
The tech-savvy psychologist model – recommendations	180
The tech-savvy psychologist model – examples	183
Acknowledgements	184
Further reading	185
About the authors	193
Appendix of acronyms and abbreviations	195

● THE TECH-SAVVY PSYCHOLOGIST MODEL ●



The tech-savvy psychologist leverages digital technology to better serve their clients in six key areas: assessment, psychoeducation, treatment, outcome measurement, marketing and networking, and practice digitalisation. They strive to make excellent use of digital technology, from the prospective client's first contact via the

practice website or intake process through assessment and treatment and right to the secure storage of the client's file after they have successfully disengaged.

We share with you a collection of practical strategies for leveraging digital technology to better serve your clients and become a tech-savvy psychologist. We have identified 21 strategies, packaged together as a set of recommendations and spread across the six key areas of our model. By completing these recommendations, you will have taken steps to address each of the key areas and be well on the path to becoming a tech-savvy psychologist.

Some recommendations can be implemented quickly and will not cost you anything, while others will require an investment of time and money. Some you can do alone, and others you will need to do with a client. You do not have to complete them in order; pick some easy ones first or those that interest you the most. The tech-savvy psychologist is opportunistic, always on the lookout for digital technology that can create efficiency gains and benefit them and their clients. So have fun with these recommendations and try to be opportunistic. Which one will provide the most benefit to you relative to the effort required to implement it?

You can find a list of our 21 recommendations on page 180.

● PREFACE ●

This book has been a long time in the making. We have both spent years actively involved with the Australian Psychological Society and other mental health organisations advocating for the science and profession of psychology and improved mental healthcare. When we were not passionately advocating, we were immersed in private practice – the daily grind of providing psychotherapy to clients and running practices. These years have schooled us in the issues facing our profession. Scarce government funding, the limited size of the psychology workforce and the stigma about mental health are just some of the challenges confronting psychologists on the front line in private practice, public health and academia.

All our experiences were linked by a recurring theme. One element, more than any other, has offered hope for sustainable progress for psychology and, most importantly, for the clients we serve: digital technology. Time and time again, it has been the answer to how to deliver better mental health services and reach more people, and its greater use has led to more efficient modern private practices.

However, digital technology can be daunting, and the pace of change is unrelenting. That is why we have written this book – to break down the myths and preconceived notions that may be holding you back from making greater use of digital technology and to show you a path to advance your practice by utilising digital technology that helps you and your clients. Whether you are in a solo private practice or manage a practice with 50 employees, you will find this book useful.

Digital technology is a lever to enhance – but not replace – the service you provide to your clients and to improve the efficiency and effectiveness of your practice. Enhancing your practice by embracing digital technology and becoming a tech-savvy psychologist can be a lot of fun. Embrace the strategies in this book and watch your practice flourish. Good luck!



PART 1

*You can become a
tech-savvy psychologist*

● INTRODUCTION ●

You and your clients can benefit from digital technology

Digital technology can enhance the service we provide to our clients. It can enhance our clinical work and the mechanism through which clients receive our services, namely our practice. The bedrock of traditional psychological therapy has always been time-intensive, face-to-face, one-on-one treatment. However, advancements in digital technology are ushering in a new era of blended care, where traditional one-on-one psychological treatment *combined* with digital resources is becoming the new standard in psychology treatment.

Although advances in digital technology have enabled this movement towards blended care, it is our clients' needs, preferences and desires that are driving it. Blended care in clinical practice simply mirrors the gradual integration of technology into our daily lives. Blended care is and will increasingly become an expectation of our clients, which in turn challenges us to utilise the available digital resources and make digital technology one of our core competencies to best serve our clients.

Traditionally, psychological treatment, or the 'talking cure', has been carried out as a face-to-face interaction where the client receives 'talking'. We are increasingly seeing the talking cure become a more comprehensive 'communication cure', where the client receives written communication as online assessment tools and psychoeducational resources, interactions with chatbots,

digital therapeutics, data coaching via wearables and outcome measurement data *combined* with the talking cure of a psychologist. Collectively, these influence the overall change in the client's condition.

Psychologists will increasingly move from providing the talking cure to the more comprehensive communication cure. Digital technology is expanding the spectrum of available treatment options, and clients are increasingly tech savvy as well. They are becoming more knowledgeable about their options and will seek the tech-savvy psychologist who can meet their personal preferences. Psychologists are being challenged to meet these needs, and so we must re-imagine the things we currently do and find better, more tech-savvy ways of providing services to our clients.

The best use of digital technology in the delivery of mental healthcare optimally incorporates technology and the human touch to empower clients to engage in their mental healthcare proactively. As providers, we must unlock technology to supercharge our practice. We have the power to transform our clients into lifelong agents of their mental healthcare journeys, and technology can help us do that. We need to give our clients strategies they can utilise long after they have finished working with us. While traditional psychological treatment can help do this, digital technology can enhance our capacity to achieve this outcome.

As a psychologist, you have received a thorough education in the science and practice of psychology. To be registered as a psychologist, you proved your capacity to read and regurgitate a textbook. You then proceeded to a career as a psychologist and quickly learnt that while your training was comprehensive in some areas, it was severely lacking in others. Digital technology is one example. Of course, psychologists are already digital technology users to varying degrees. For example, psychologists who do not use email

are rare, if not extinct. It would be hard to obtain or maintain a job as a psychologist without email.

But what if you were to really embrace digital technology? What would that look like? How can digital technology help your clients? How can it enhance your practice and allow you to offer greater value to your clients? Where should you start if you were to embrace technology? What is practical that you can start using now?

It is time for psychologists to grapple with these questions and move at greater speed in this direction to experience more of what a tech-savvy psychologist can achieve. We will show you different ways to accelerate your uptake of digital technology, and hopefully, by the end of this book, you will feel both equipped and motivated to become a tech-savvy psychologist.

Imagine the tech-savvy psychologist

Imagine you are presented with a potential client whose profile closely matches that of the clients you have assisted the most in the last two years of your practice. You know this because you have been provided with comprehensive information about the client. The information includes a general practitioner (GP) referral letter, a GP mental healthcare plan and the results from an online assessment tool. The new client has also completed your online client intake form, which includes key questions to obtain important information not found elsewhere in the referral.

You decide to work with the client and have the first session. You are equipped with artificial intelligence (AI) that records your notes in real time, allowing you to focus exclusively on client engagement. Towards the end of the session, you request feedback from the client, which helps you to track their progress and guide future sessions. After the session, you receive an AI-generated report that has analysed the transcript of your session and compared it with millions of other psychology sessions. You learn how your session

compares with other psychologists' sessions, and you are provided with guidance on what you can improve for the client's next session (scary but cool!).

Before the next session, you check your client's file and find comprehensive data about them on a wide range of physical and mental health variables. The client has a wearable device, and data are regularly and automatically uploaded to their file. This provides you with a wealth of information that is summarised and presented to you in simple graphical form. You have a clear picture of your client's current functioning, and you will be quickly alerted of any changes that may signal an emerging issue, along with a set of recommendations.

You enter your second session with a thorough understanding of your client. Psychoeducation is brief because you know they have engaged with several online mental health resources. They tell you about the issues they have not been able to resolve despite the less intensive treatment options they have received. You are free to listen to your client and focus on tailoring the treatment to their specific needs. You are working at the top of your scope of practice.

Before we outline how this scenario will become a reality for psychologists and how this technology is already being used within the healthcare system, let us briefly explore some barriers to the uptake of digital solutions and the issues associated with our current approach.

Current barriers to the uptake of digital mental health tools

Digital interventions in mental healthcare have consistently lagged behind expectations. Psychologists today trained before there was so much emphasis on digital technology, and digital tools were not embedded in psychology training programs. We are mandated to

continually upskill our clinical knowledge, but very few of us seek professional training to upskill in digital technologies. In line with this, we have identified the area we believe is the largest single opportunity available to us to enhance our practice.

The importance of working within the guardrails of standardised care is ingrained in clinical training programs. We are highly trained professionals who are schooled in the value of safe and effective evidence-based treatment, where we do not deviate from standard care. While this is crucial in ensuring a high quality of care, it has served as a barrier to embracing technological change. Psychologists are not anti-technology Luddites, but we are reluctant to be the first movers in utilising digital technologies and are cautious about embracing different forms of care unless there is an overwhelming evidence base for the practice and it is accepted by our colleagues.

Hence, the uptake of technology in mental health services has primarily come from one of the following three sources: government intervention to improve awareness and access and drive efficiency; entrepreneurs looking to disrupt current business models, predominantly in Europe and North America; and, recently, via the disruption caused by the COVID-19 pandemic.

There is little or no upfront financial incentive for psychologists to change. The financial incentives for medical general practices in Australia to adopt new digital health technology through a scheme called the Practice Incentives Program eHealth Incentive have not extended to psychology practice. For psychologists, there is initial financial pain associated with moving from traditional products and services to online and digital equivalents.

Furthermore, most psychologists are busy encouraging clients to unplug and reconnect. In discussions with colleagues about the idea for this book – exploring digital technology and mental health – it was generally assumed that the book would be about

the terrible impact of digital technology on mental health. It has been suggested that some of the cynicism about technological innovations may be related to psychologists being on the front line of observing the human cost of rapid technological advancement. Indeed, digital technology is both a blessing and a curse for our mental health. However, even sceptics must acknowledge that a lack of access to mental health services due to the absence of digital technology has a cost. Therefore, psychologists can potentially be central to the solution of using digital technology to increase access to mental healthcare.

There is also fear of disruptive technology. This fear is understandable, particularly in response to some of the more brash predictions about disruptive technologies. No, human psychologists will not be superseded by psychotherapy chatbots – at least not entirely and not anytime soon, but much more about that later. Moreover, there is the prospect of having to make significant adjustments to current work practices, which is doing more to drive fear and stymie change than to motivate digital technology adoption to enhance practice.

Another barrier is awareness. Getting digital tools into the market is not enough. Both clients and psychologists need to know about these tools and understand how to use and integrate them. We need to invest end to end in product development, not just development and release but right through to end-user uptake. As we explored digital technologies in development and on the market, both in Australia and around the world, we were amazed time and time again to discover the depth and breadth of available products and services that we did not know existed and that are divorced from the day-to-day reality of mainstream mental health service provision on the ground in Australia. We cannot assume people have the awareness and skills to use these technologies. We need to work to ensure they want to and can utilise them.

Encouragingly, these barriers are surmountable. Old justifications for not embracing digital technologies are dissipating. A proper evaluation of what works and what does not is no longer lacking. Through rigorous peer-reviewed research, we know that many digital products work. A lack of internet access, connectivity and electricity supply costs, data insecurity, client lack of digital technology knowledge and client resistance to digital interventions are more myth than fact for the vast majority of Australians. Over 96% of the population had internet access in 2023. Nevertheless, we should be mindful of and provide treatment options for vulnerable groups who do not have the capacity to benefit from digital interventions.

The demand for digital solutions is tremendous, and with that comes an opportunity to develop highly efficient and effective digital assessment tools to facilitate a truly stepped care system. Digital assessment tools can break down barriers to access and allow for triage to overcome geographical and financial barriers, all while avoiding stigma. The assessment can then direct the client towards the most appropriate intensity of treatment based on their current level of need. Their personal preferences are considered, and they can begin psychoeducation immediately while waiting for a higher intensity of care when and if it is required. Integrated digital assessment tools can also include evaluation elements, which allow monitoring of the system's efficiency and effectiveness to help drive improvement. AI technology can now take this further, tailoring and personalising the digital treatment journey by adapting to the client's responses and learning about them.

We need to move from the dark into the light. We need to modernise how our mental health system operates to empower consumers, funders and psychologists to overcome access barriers. We also need to get the consumer to the right care at the right time in the right place with an appropriately trained mental health

provider. We then need to measure how that consumer is responding to the treatment provided. Psychological interventions can be highly efficacious but do not reach enough of the consumers who need them, as psychological care is often delivered to one person at a time and is concentrated in large metropolitan areas. To reduce the burdens of mental illness and poor health behaviours, we need scalable interventions that reach all consumers who may benefit from mental healthcare. Furthermore, mental healthcare practice must adapt to address the systemic issues of supply and demand in the future.

We are living in an era of very imprecise mental healthcare. Future generations will look back on this era and be stunned at how primitive the system was at all service points, from client assessment to allocation to treatment delivery. By relying so heavily on human-to-human interaction, we are limiting the scalability of mental healthcare, which benefits some providers and hinders many clients. The mental healthcare system and its workforce are primed for a revolution where current and emerging technologies drive increased efficiency and reach. Although the COVID-19 pandemic provided an impetus for psychologists to overcome telehealth hesitancy, we must not allow technology reluctance to obstruct us from utilising digital technologies that can benefit our clients. As psychologists, we must take an interest in digital technology applied to mental healthcare.

The future of mental healthcare must be one of greater equity. We must address supply and demand issues by converting to a digital format those efficacious psychological treatments that can be transformed, all while being guided and overseen by highly trained psychologists. We need to embrace AI and digital technology. The good news is that we can do this, and we can do it now. Before we explore this topic, let us reflect briefly on why we need to do this.

Issues with our current approach: demand outstripping supply

Lack of access to mental healthcare services is not new. Adequate access to timely and affordable mental health services has long been lacking wherever we look across the globe. Countless government inquiries over decades and across countries keep saying the same thing: where mental health issues exist, there is a well-recognised lack of access to adequate services. The barriers to access are numerous and varied, but overall, they are remarkably consistent worldwide.

Mental ill health is one of the leading causes of disability globally. In Europe, people with depression, anxiety and other common mental illnesses die 20 years younger than the general population on average. In the US, around half of all people with mental health problems do not receive treatment. The problem is enormous and a source of considerable human misery, and it is only getting worse.

The lack of mental healthcare professionals is the largest barrier to access by far. Providers are struggling to keep up with demand, and consumers are being turned away in large numbers. Where there is access, too often, it is the privileged few who can afford it. The problem is caused by chronic mental health underfunding, combined with a lack of new psychologists coming into the system, all at a time when mental health awareness and willingness to engage with services has exploded.

Psychologist training encompasses extensive professional education of between six and eight years. The lengthy training, coupled with a model of care focused on individual, fee-for-service, time-intensive, one-on-one therapy, used to be adequate when mental healthcare services were largely restricted to the wealthy and those with chronic, severe and pervasive mental illness requiring intensive care, funded and provided by the state. In recent decades,

particularly since governments have subsidised treatment for a broader section of the community, the deficits in the system's capacity to scale up have been exposed.

The reality is we do not have the workforce to deal with the level of demand. There is no realistic capacity to fund or train the number of psychologists necessary to meet the demand for mental health services using the current method of service delivery. From an international perspective, Australia has a relatively large per capita workforce of psychologists already, and yet many Australian mental health consumers despair at the challenges associated with accessing services. Geography does not help, either. The shortages are greatest in rural and low-income urban areas, as providers are trained and located predominately in large metropolitan and high-income areas. In Australia, for every three psychologists available in the city, there is one psychologist in outer regional or remote Australia. In such areas, telehealth has certainly helped to a degree.

An effort to prioritise mental healthcare policies and funding has also been lacking. Many countries do not have a specific budgetary allocation for mental health, and those that do spend less than five per cent of government health expenditure on mental health. This can lead to fragmented service delivery and costly mental healthcare. For many people, a lack of financial resources prevents them from seeking help despite government assistance, such as Medicare rebates. Others receive inadequate or inconsistent treatment, such as too few or too infrequent sessions. No patient has half a course of chemotherapy or waits from August to January to have their eleventh dose of chemotherapy because they cannot afford the full cost, and they might not get a rebate until the new calendar year because they have reached their annual quota of government-funded chemotherapy. In psychology, 'managing the 10 sessions' is standard business, and we have forgotten just how outrageous it is.

Allocation issues: receiving the right service at the right time

The Australian Government's Department of Health defines stepped care as 'an evidence-based, staged system comprising a hierarchy of interventions, from the least to the most intensive, matched to the individual's needs. While there are multiple levels within a stepped care approach, they do not operate in silos or as one directional steps, but offer a spectrum of service interventions'. Stepped or staged care has become central to Australia's mental health reforms and has been used to guide mental health programs provided via the primary health network.

A stepped care model promotes client-centred care targeted to the needs of the individual. Instead of a one-size-fits-all approach, the client receives a service that optimally matches their needs, does not under- or over-service them and makes the best use of the mental health workforce. As a guiding principle for the efficient allocation of clinical services, stepped care is highly sensible. In theory, the right service is provided at the right time, including early on when low-intensity steps are beneficial and before severe illness manifests itself. This rarely plays out neatly on the ground, however. People can spend years not receiving care, and then, following one consultation with a GP, they are elevated to face-to-face, one-on-one treatment with a clinical psychologist for a mild condition – with nothing in between.

To achieve stepped care, high-quality assessment and triage are key. However, this is rarely where investment is made. When different workforces are utilised to deliver different services at different steps, the system can quickly become confused and disjointed, and the evidence behind what is delivered becomes less and less certain.

Also problematic are who (or which technology) assesses the individual's needs and how that assessment is done. What is

required is the least invasive and most accurate assessment possible that captures the client's needs. Systems such as the Mental Health Treatment Plan funded by Medicare Australia have been shown to create significant barriers for clients to proceed with mental health treatment because of the need to make and attend an appointment with a doctor, as well as the costs involved. There has also been a tendency towards referral to a higher level of intervention than required. Low-intensity care is unappealing to clients and referrers alike, with few referring to these services or digital resources. Understandably, doctors want the best service for their clients, and clients want quality service, so there can be a tendency towards going straight to one-on-one treatment with a psychologist without considering lower levels of intervention.

Unclear outcomes: is the client improving?

Psychologists and other healthcare professionals have traditionally provided mental healthcare services on a fee-for-service basis, with no obligation on the part of the service provider to deliver a particular outcome beyond satisfying the consumer. The emphasis has been on the treatment provided, and there has not been the same level of focus on monitoring the outcome of the treatment. Psychologists seldom rely on formal assessments to monitor their clients' responses to treatment. If the clients are satisfied and the referrers keep referring, then the psychologist assumes their treatments are satisfactory.

But what is a satisfied consumer, and what is a satisfactory outcome? Can a satisfactory outcome be different for a consumer, a funder and a provider? Evidence suggests this is the case on the ground. Issues arise because of a lack of alignment between service provider reimbursement and clearly defined client outcomes. From both a lay perspective and a funding perspective, it may be self-evident that a satisfactory outcome is where the client's mental

health status improves after a few sessions. However, clients often disengage from treatment before an adequate quantity of treatment that would have achieved remission and guarded against relapse.

From the client's perspective, a great outcome might be symptom relief, but there are also cases where a satisfied client is one who has regular appointments with their provider for years with no significant change in their mental health status, as they may find it a 'therapeutic' or cathartic experience to feel supported in a therapeutic setting. From the psychologist's perspective, a satisfactory outcome may be any of the above. The psychologist is providing services, and the consumer is reporting satisfaction – great result! Client satisfaction matters, and in an industry where outcomes are hard to quantify, mental healthcare services worth billions of dollars are funded largely on the back of consumer satisfaction and election priorities.

This lack of clarity about which treatments and providers are delivering the most effective services has created challenges for funders looking to make an informed choice about which care to fund and for consumers looking to make an informed choice about which care to engage. The gravity of the challenge is further highlighted by evidence suggesting that the providers do not even know when they are working with a client! Providers need formal assessment methods to be able to identify a deteriorating client, and those who do not use some form of standardised measure that formally tracks treatment responses rarely predict accurately who is not benefiting from psychotherapy.

These barriers have left the mental health profession spinning its wheels. In some ways, we are moving faster and faster. We have now developed more than 250 manualised treatment approaches. Clients will regularly ask for specific treatments, such as cognitive behaviour therapy (CBT), schema therapy (ST), dialectical behaviour therapy (DBT) or eye movement desensitisation and reprocessing

(EMDR), based on advice they receive or consume online. However, we have neither strong evidence that some therapy approaches are more effective than others nor clear indicators to apply them at an individual level. We have no evidence that treatment outcomes for the usual array of therapies have improved significantly in the past 50 years, and we also have no evidence that therapist outcomes improve as therapists gain more experience. Based on client outcomes, therapist performance slowly worsens over time. This is food for thought for any consumer starting treatment with an experienced psychologist using a specific treatment approach without session-by-session outcome monitoring. Psychologists either collect outcome data or fumble in the dark.

The good news is that there are technological solutions that address all these issues. We can improve the supply and demand problem, and we can fix the allocation and unclear outcomes issues. The rest of this book is a journey to discover what we can use now and an exploration of the exciting, innovative developments that will form the future of our practice. It is important for psychologists to develop an awareness of the myriad digital tools and resources available and to develop the skills and confidence to introduce them to our clients. This book offers practical advice on doing just that.

Key points

- ⊙ Blended care combining traditional therapy with digital mental health tools will become the standard in psychology, driven by client needs and preferences and ongoing advances in digital mental health tools.
- ⊙ Digital technology can broaden client treatment choices, improve service delivery and empower clients in their mental healthcare journeys.
- ⊙ As psychologists, we have an opportunity to integrate digital tools and resources into our practice to better serve our clients.

- ⊙ Barriers to the uptake of digital technology include lack of training, reluctance to change standardised care practices, the financial costs of making changes and scepticism about technology's role in mental health.
- ⊙ Digital technology is crucial in addressing access and efficiency challenges in mental healthcare and can enable scalable and accessible treatment.

● CHAPTER 1 ●

Are your beliefs about technology holding you back?

It is important to be aware of your technology-related beliefs that may be influencing how you view opportunities to incorporate technology into your professional life. This is because your technology-related beliefs might be holding you back from making greater use of digital technology. Technology-related beliefs can vary greatly, but here are a few examples:

- I am not good with technology.
- Technology is a waste of time.
- Technology is for young people.
- Technology is going to take my job.
- Technology is bad.
- Technology is the root cause of society's problems.
- Technology is leading to a loss of personal connection and human interaction.
- Technology is eroding privacy and autonomy.
- AI poses a significant threat to humanity.

What are your beliefs about technology? And where do those beliefs come from? We know our beliefs are often formed by our previous experiences, and we may have different beliefs in different settings. For example, some of us demonstrate a high level of digital literacy in our personal lives and a lower level of digital literacy in our professional lives. Our technology beliefs and technology usage are also influenced by our broader view of whether technology is a

help or a hindrance and whether we have control over technology or it has been thrust upon us.

Technology solutionism and technology determinism

Technology solutionism and technology determinism reflect two forms of extreme beliefs about technology. Technology solutionism is the belief that technology can solve all problems and does not consider the broader social, economic and political factors that contribute to them. This can lead to a narrow focus on technological solutions without addressing the underlying causes of issues or giving adequate consideration to the consequences of a particular technology's uptake. What we have seen with social media can be viewed as an example of technology solutionism. We have rushed to connect people via social media without adequately considering its unintended consequences. Many people fear AI will be the next mistake, where we rush to solutions without learning the lessons of our social media solutionism.

By contrast, technological determinism is the belief that technology is the driving force behind social change and that humans have no control over it. This can lead to a sense of powerlessness in response to technology. It can also lead to resentment and resistance to making changes in response to available technological opportunities.

In line with these concepts, you should be aware of your own beliefs so that you can manage them in response to digital technology in your practice. You should find a middle ground and a balance between technological solutionism and determinism. Be cautious of new technology and aware of its limitations but also open to how it can assist you. With regard to technological determinism, yes, various technologies will be thrust upon you whether you want them or not, such as email. However, there is usually a very long

interval between a technology becoming available and becoming a mandatory requirement in the workplace. Within that gap, you have the opportunity to gain agency over the technology you utilise and how you utilise it.

Five stages of technology adoption

People can be grouped into one of five categories based on their adoption of technology. It can be helpful to be aware of these categories and to reflect on where you currently belong and, most importantly, which category you *want* to belong to in the future.

Category	%	Description
Innovators	2.5	Enthusiastic about new technology and willing to take risks
Early adopters	13.5	Willing to work through setbacks but love knowing about new technology
Early majority	34	Interested in technology but want proof of its effectiveness
Late majority	34	Question the need for change and want solid proof the technology is worth their time
Laggards	16	Prefer the status quo and easily frustrated by new technology

- Which category do you belong to?
- Is your professional identity currently tied to one of these categories?

In the case of those in the innovators/early adopters and laggards categories, the second statement can be particularly true. They become known and accept that they are known as persons who know about and embrace technology, or they are among the last to hold out on new technology and resist it as much as they can.

- Can you think of some colleagues who belong to each of these categories?

If you are in the 35–50-year-old age group, you have potentially 20–35 years of working life ahead of you. Within that time, digital technology will change beyond even the most speculative elements of this book. Indeed, if you are reading this book, you are either an innovator or an early adopter or you recognise that digital technology and psychology increasingly go hand in hand. Life as a psychologist is becoming increasingly difficult for the late majority and the laggards, and this will only escalate.

An exciting question is this: which category do you *want* to belong to? Do you want to settle in with the early majority? The early majority is a safe place to be because you can embrace an established technology only when its effectiveness has been proven. However, your business and your clients will not have access to that technology until other psychologists have integrated it into their practice and obtained the first-mover advantage. Hence, you are guided by and constantly playing catch up to the innovators and early adopters.

Would this be acceptable to you in other areas of your work life? We encourage you to get on the front foot and make digital technology your strength. Embrace the changes occurring in digital technology and be an early adopter. Turn an element of your work life that may be a weakness (late majority and laggards) or neutral (early majority) into a strength (innovators and early adopters).

- Are your beliefs hindering you from embracing digital technology?
- What needs to change to achieve this goal?

Challenging your beliefs

While some technology-related beliefs may limit your willingness and capacity to embrace technology, ‘I am not good with

technology’ can be a powerfully unhelpful belief. This belief can create a self-fulfilling prophecy of discouraging you from exploring and learning about new technologies. ‘I am not good with technology’ is often stated like ‘I am tall’ or ‘I am short’. Height is hard to influence, but you can influence your efforts to develop skills in digital technology. You can make digital technology skill development one of your goals in your annual continuing professional development (CPD) plan.

This belief needs to be reframed from ‘I am not good with technology’ to ‘I am not good with new things’ to ‘it takes time to learn new things’ or ‘I just need to give this a go and stick at it for a while’. You have gone through this process many times in many other areas of your life. No one says, ‘I was absolutely perfect at driving a car the very first time I had a go.’ This is ridiculous, as it takes time to learn a new skill. Technology skills need a period of crawling and then walking before you can run, just like most skills. An added challenge when learning technology skills for the first time is that you already have a manual way of doing a task, which you believe is easier.

Would it have been easier to stick with a paper-based diary instead of moving to an electronic diary? On day one, yes, and probably on week one and month one as well. But the advantages of an electronic diary are cumulative, and its full value is only clear after some time, and then, you cannot imagine any other way. You need to be prepared to try new things and challenge your unhelpful beliefs that limit your capacity to try new things.

The belief that technology can solve all society’s problems is naive to the limits of technology and the need for non-technological solutions. When a client is in significant distress, the need for emotionally intelligent human interaction with a psychologist is not going away any time soon. Strike a balance and look for the level of technology usage that works optimally for you and your clients.

Ultimately, you will decide what that is, and your clients will vote with their feet as to whether you have the balance right. You must approach technology with an open and curious mind and be aware of the potential benefits and drawbacks of different technologies. In a world where techno-pessimism can easily creep in, the tech-savvy psychologist must also be a techno-optimist.

If you can obtain the qualifications to be a registered psychologist, you are capable of learning to utilise new technologies. Reliance on precedent means the psychology industry, like many others, is often anchored in traditional standard behaviour. Try to develop a mindset of being on the lookout for technology that can help improve your efficiency in the same way you are on the lookout for clinical CPD opportunities.

Professional services have been drastically changed by technology in recent years. Law, accountancy and finance, as well as almost every sector of healthcare, have integrated novel technologies to optimise efficiency, output and client service. In the legal industry, technology has enabled the automation of routine tasks and allowed lawyers to focus on high-level tasks and direct client contact. In accounting, cloud-based accounting software and automation tools have made it easier for accountants to manage their work and provide real-time financial reporting to clients, often without the need for any face-to-face contact. Financial services, data analytics, AI and machine learning have revolutionised decision-making, risk assessment and forecasting. They can help businesses based on the analysis of massive datasets that no individual or medium-sized team of professionals can manually analyse.

Overall, technology enables professional services to become more efficient, cost-effective and client-focused while also creating new opportunities for innovation and growth. Hence, it is important for service professionals to continuously adapt and learn new technologies to stay competitive and provide value to clients in

an ever-evolving digital landscape. A challenge for the uptake of technology for psychologists is that the training is so focused on clinical practice and not on using modern technology in therapy. Ultimately, however, psychologists will be forced to utilise new technologies, as clients will not put up with slow, inefficient and poor-value services. This trend is only likely to increase in the coming years, along with the need to respond to rising pricing pressure and provide flexible delivery of psychology services. There may also be direct competition with non-psychologist data coaches.

This means that to operate *efficiently*, psychology practices will need to increase investments in technology. Most practices have recognised this in terms of practice management software and cloud-based calendars that allow practitioners to access diaries remotely. During the COVID-19 pandemic, there was a rush to obtain webcams and telehealth software and to ensure devices and internet speeds were capable of performing at an adequate level to serve our telehealth needs. In the short term, it can be painful, time-consuming and costly to make investments in technology when business-as-usual may suffice. This was the trap Blockbuster Video fell into when an alternative means of service delivery emerged: streaming via Netflix.

One of the biggest impediments for psychologists embracing digital technology is when the practice is doing just fine. However, compliance costs are rising, the landscape is constantly evolving, and never forget, our industry is artificially supported by funding bodies, such as Medicare and the National Disability Insurance Scheme (NDIS). This can easily be reduced or even removed as efficiency moves from being a nice-to-have to a have-to-have. Warren Buffett, the billionaire investor, once said, 'Only when the tide goes out do you learn who has been swimming naked.' Thankfully, for us and our clients, the psychology profession has had a very high tide

for a very long time, but we cannot operate our practices expecting that to last forever.

Technology offers opportunities to you as a private practice psychologist to improve the effectiveness and efficiency of your business. Technology is often presented as a solution to a problem, so think of it as an opportunity to improve your work experience, create work-life balance and transform the service you provide to clients. Too often, those who are wary of technology see it as a threat to be resisted until it is forced upon them. The resist-until-forced strategy means eventually adopting the technology anyway because it is essential for you to continue operating. Small, incremental changes will ensure you are not overwhelmed, and you will be better prepared for digital disruptions that may happen to the industry in the future.

Sometimes, people who resist technology uptake only do so in certain settings. Sometimes, either desire or necessity leads to technology uptake in one setting but not in another. For instance, high-end mobile phones and wearable devices, such as smartwatches, are common possessions of psychologists who are otherwise slow on the technology uptake in their work lives. Is this you? Do you have anti-technology beliefs in the workplace that you do not hold in your personal life?

Alternatively, some people hold anti-technology beliefs in their personal lives that they do not in their professional lives. For example, a professional accountant once mentioned that they would never join Facebook to see regular updates from family members, but they were superb with Excel spreadsheets and at navigating the myGov/ATO website. They could link spreadsheets, automate column totals and teach these skills to others but had never used the GPS navigation system in their car. They had invested time in some areas to develop the skills they needed or wanted as part of their professional identity but were unwilling to do so in other areas.

Psychologists should possess the competence necessary to work effectively in their role. For some, this requires an investment of time to develop digital skills. The culture of a psychology practice can be a handbrake on the uptake of digital technologies and digital systems. Deciding to adopt more digital technology is not a simple decision. Perhaps you feel the need to improve your digital literacy to become adequately confident to embrace digital technologies. Without an adequate level of digital literacy, it can be hard to see why or how digital technology can be of practical assistance and enhance your practice.

Digital literacy

Digital literacy refers to the ability to use digital technology, communication tools or networks to locate, evaluate, use and create information. You must have an adequate level of digital literacy to be able to engage with the tools you need to serve your clients. Just as we cannot say ‘note-taking in clinical practice is not my thing, so I do not do it’, saying ‘digital technology is not my thing’ will soon be unacceptable for psychologists.

If you (or your client) are not confident with digital technology but are willing to put in some time to improve, then consider using the Australian Government website Be Connected. While targeted at older Australians, Be Connected is a wonderful free resource for anyone wanting to improve their digital skills, from operating a mobile phone to using Wi-Fi, shopping and banking online, streaming Netflix and understanding AI. There is a resource for everybody. Be Connected can assist people in overcoming the fears associated with being online and provide practical how-to skills in various areas that are becoming increasingly important to be able to participate fully in society.

Start with small changes

Once you start thinking about digital efficiencies, it takes time to truly understand what your challenges are and where the opportunities lie to make cost-effective improvements in your digital efficiency. Small changes can be helpful, particularly if you have colleagues who need convincing that greater utilisation of digital technology in your practice is a good idea. Small, useful changes in your practice can allow you to see digital technology as an opportunity to improve your work life and your services to your clients rather than as a threat.

Understandably, some people are nervous about the threat of digital technology and respond to it with resistance to change. Psychologists are time-poor, and implementing change in your practice can seem like an unnecessary impost on your time. Start with small changes and build up. Pick and choose ideas from this book that suit your current circumstances. A small disclosure here: we do not use all the strategies and ideas outlined in this book! It would be impossible for an individual to use every strategy in this book. We are sharing all the ideas we use, as well as many of the great ideas that other psychologists are using. Just as we cannot master every therapeutic modality, it would be impossible to master every technology resource.

This book serves as a guide to implementing technology solutions in a psychology practice. You do not have to embrace every idea in this book, and certainly not all at once. Baby steps can be a good approach, so consistently try one or two new ideas at a time. Have a mindset of evaluating your process. Is there a better way? Why do we do it this way? Continue with elements that are working for you and adapt and change those that are not.

Key points

- ⊙ Anti-technology beliefs and resistance to digitalisation can hinder progress.
- ⊙ Overcoming digital literacy challenges and gradually adopting technology can lead to transformative benefits for your practice and your clients.
- ⊙ Begin digitalising your psychology practice by making small, manageable changes. It will take time to understand the challenges and identify the opportunities for cost-effective improvements in your digital efficiency.
- ⊙ Set a goal to become an early adopter.



PART 2

*Tools you can use
with clients*

Case study: Rob

Like many people, Rob started his journey by Googling his symptoms, which led him to the Australian Government website Head to Health. There, he completed an online digital screening tool, which he referred to as a ‘quiz’. The screening tool suggested it would be a good idea for Rob to talk to somebody, but that was the last thing he wanted to do, having spent years covering up his anxiety. All Rob’s work colleagues knew was that he got a lot of ‘headaches’. They had no idea he spent days feeling sick at the thought of having to interact with customers. If they knew he was anxious, it would have made his anxiety worse. The only person who knew about Rob’s anxiety was his girlfriend, Caitlin. While it was a relief that Caitlin knew, he was not ready to face anyone else.

Nevertheless, Rob took up the other option the tool suggested: an online mental health program. He did not mind doing this. He could chip away at it when he had the time. More importantly, it was private. Rob did not tell anybody he had done the program until his doctor started an assessment for his referral to a psychologist. Through the program, Rob learnt a lot about his mental health and about depression and anxiety symptoms. It introduced him to the idea of CBT and got him thinking about and practising some strategies that he could use to improve his mental health, such as thought-challenging.

The program also helped Rob develop greater confidence in understanding his mental health issues. A big moment was when he realised he was not the only one experiencing what he was going through. In fact, so many people had similar experiences that the government had spent a lot of money developing Head to Health for this exact reason! The program helped, but when Rob had to present to a customer or ask a question at a work meeting, the anxiety was still overwhelming. Rob also knew he was missing out on many

social events with friends due to his anxiety. He would always say he was busy or his girlfriend wanted him home, but he now understood why. Finally, Rob realised that psychologists had strategies that could help. It was time to see someone.

Rob is a real-world example of how technology can overcome some barriers to care and streamline the process for those who engage with mental health services. Digital technology was able to provide intervention at a relatively early stage for a person who otherwise may not have accessed any help until he was forced to by loss of employment or the threat of losing his relationship. Head to Health destigmatised mental health and anxiety for Rob and served as a stepping stone to the therapist-led services he required.

Rob was the dream client. He was already knowledgeable about his condition. Psychoeducation was brief and confirmed his understanding of anxiety and its treatment. He could progress to the elements of therapy beyond what he had received from digital sources. His psychologist could provide value to him using skills that were beyond the capability of the technology. Indeed, there are many Robs in Australia and hundreds of millions around the world who can benefit from such resources.

In the next chapters, we will explore technologies that are empowering consumers to gain clearer insights into the issues that are troubling them, such as digital screening tools and digital mental health resources. We will explore how technology is providing consumers with unprecedented opportunities to learn about their mental health and gain strategies to assist with their mental well-being. And we will see how technology is being used to direct consumers towards the right level of care if and when a trained psychologist is required.

● CHAPTER 2 ●

Assessment tools

Head to Health

If you have not already checked out the Head to Health website, we encourage you to do so. Rob used the Head to Health screening tool, which takes about five to seven minutes. Head to Health is a digital mental healthcare resource funded by the Australian Government, and it assists clients like Rob to be much more informed about their condition and the evidence-based treatment options available to them. In the future, digital mental health resources will be highly integrated into the assessment and referral process of GPs, and Head to Health is likely to be the portal through which that will be achieved.

Resources such as Head to Health will, in time, deliver us to an era of a fully integrated stepped care model. As such tools become increasingly well-utilised, it is worth routinely asking your clients whether they have used any online assessments as part of your intake process. It is likely that a client would have received services from a competent but less-trained mental health worker and/or digital technology and the tools and resources they direct clients towards before commencing with a psychologist. It is almost inevitable that digital screening tools will routinely become the first port of call for consumers seeking an assessment of their mental health. In a system crying out for efficiency gains to maximise the mental health workforce, this is the one area above all others where technology can be deployed now in a fashion that works for consumers.

Initial Assessment and Referral Decision Support Tool

The Initial Assessment and Referral Decision Support Tool (IAR-DST) is a free digital tool developed by the Australian Government Department of Health. It is designed to support primary health-care clinicians in finding the most suitable level of care for patients seeking mental health support within the stepped care approach. This clinically informed online tool supports decision-making at the first point of contact with a person seeking support. The current tool was developed for people aged 18–65, and future adaptations will focus on separate decision support tools for children aged 5–11 and adolescents aged 12–17. The user can quickly rate the client on eight domains:

- Symptom severity and distress
- Risk of harm
- Functioning
- Impact of co-existing conditions
- Treatment and recovery history
- Social and environmental stressors
- Family and other support
- Engagement and motivation.

Based on the ratings in these eight domains, a recommendation is provided for the level of care, as outlined below.

Level	Care	Psychologist involvement
1	Self-management	
2	Low-intensity services	✓
3	Moderate-intensity services	✓
4	High-intensity services	✓
5	Acute and specialist community mental health services	✓

The IAR-DST is relevant to us psychologists not because it is a particularly impressive tool or because it impacts the volume and types of referrals we receive but because of what it signals from the government. Clearly, the government has it in mind to use technology to assess and funnel clients. The psychology profession must have a voice in how this technology evolves and particularly how assessment tools integrate with outcome measures, but more on that later.

PsychProfiler

PsychProfiler is a digital screening tool that can empower people to better understand their mental health needs. PsychProfiler screens for more than 20 of the most prevalent psychiatric, psychological and educational disorders in children and adults. It is available to the public and costs A\$5 per administration to use, but bulk discounts that can reduce the price to A\$2 per administration are also available. While the developers are quick to point out that a screening test like PsychProfiler should not replace a formal diagnosis by a registered health professional, it is a low-cost tool available 24/7 to consumers to determine whether a mental health issue or even a learning disability is likely to apply to them. Some psychologists request their clients to complete PsychProfiler as part of their intake process to guide a faster, more focused initial assessment. In an era of very limited Medicare-rebated sessions, this type of strategy is becoming more prevalent. In our experience, when asked, clients are generally keen to complete PsychProfiler to proactively assist us and maximise their face-to-face time.

Recommendation #1: PsychProfiler

Use PsychProfiler with one client whose diagnosis you are uncertain of to experience the tool. Then, consider whether PsychProfiler can assist in your work with other clients.

Mental Health Online

Mental Health Online, an initiative of Swinburne University's National eTherapy Centre funded by the Australian Government, has a free online mental health self-assessment tool called e-pass. E-pass is a comprehensive online psychological assessment program that assesses the type and severity of difficulties experienced by the user. It takes 25–60 minutes to complete, depending on the number and types of symptoms. The user is provided with a summary of their symptoms and treatment suggestions, including free self-guided programs and therapist support.

Below is an example of the results from an e-pass assessment, with recommendations suggesting the user should consult a doctor or mental health professional and provide them with a copy of the results.

Major Depressive Disorder (Moderate Clinical Disorder)

The symptoms you reported are consistent with a moderate clinical diagnosis of Major Depressive Disorder

The main symptoms of Major Depressive Disorder include:

- Depressed mood or a significant lack of interest or pleasure in almost all activities for most of the day, and nearly every day for at least two weeks
- Other depressive symptoms for the last two weeks or more (e.g. sleeping difficulties, change in appetite, fatigue, feelings of worthlessness, difficulty concentrating)

Recommendations

When depressive symptoms and manic episodes occur together, a diagnosis of **Bipolar Disorder I – Mixed Episode** is more probable. As you reported both (i.e. symptoms that resemble the experience of a manic episode with your depressive symptoms), we **strongly recommend** that you visit your doctor or a mental health professional for a full clinical assessment to explore this further.

If you live in Australia, you may like to visit the [Australian Psychological Society](#) 'Find a Psychologist' website to assist in locating a psychologist. It might also be useful to take a [print out](#) of this assessment to any appointment you might make.

Immediate assistance in Australia may be sought by calling Lifeline on 13 11 14.

Start a treatment program for this disorder

In time, more and more clients will engage with a digital medium to start their mental health treatment journey. They will enter a digital gateway and complete a comprehensive screening tool, such as Head to Health, PsychProfiler or Mental Health Online. The screening tool will not provide a definitive diagnosis, but it will

give the user detailed information about the mental health issues they are most likely to be struggling with and options for what to do next. Uptake has been lacking because of a lack of awareness of their availability, but this will soon change. Psychologists should be aware of these resources and encourage clients to engage with them.

Likewise, GP initial assessments will be enhanced by these tools. Besides empowering the client to better understand their mental health, they will increase assessment efficiency and reduce the subjectivity of a time-limited, government-funded GP mental health assessment. Using these products routinely will also help GPs reduce bias. Similar to when a human interviewer uses a structured interview schedule or works from a structured checklist, these assessment tools can delay judgment and reduce the subjectivity of an assessment. We also now have evidence that using digital assessment without a human interviewer can increase the client's willingness to disclose. Psychologists need to be aware of these resources because, more and more, our clients will have utilised them prior to having contact with us. And needless to say, we can also utilise them with our clients.

Virtual agents

The future of assessment is likely to be the combination of a comprehensive screening tool with an AI-powered virtual agent, such as a digital screening tool administered by a virtual human interviewer designed to create an engaging face-to-face interaction where the user feels comfortable talking about and sharing information related to their psychological distress. This technology will arrive in the next 2–5 years and modernise online digital screening tools.

When we hear these projections, we might think of the incremental advances in the current technology and dismiss them.

With AI-powered virtual agents, however, we need to think exponentially, as this technology is *not* advancing incrementally. It is advancing *exponentially*, and there is no reason to suspect that we are reaching the limits of what AI can achieve. Hence, we should expect magnitudes of improvement in AI-powered virtual agents in the future. Because of this exponential rate of improvement, virtual agents will revolutionise the professional service sectors for those elements that are repeatable. In psychology, that means psychoeducation and therapy skills training initially. More on AI and virtual agents later.

Online resources can help reduce stigma

As we know only too well, stigma remains a significant barrier to consumers deciding to engage with a mental health service. Negative and unhelpful beliefs can hinder acknowledging mental health issues and engaging in help-seeking behaviour. The fear of discrimination and other people's adverse judgements in cultural, social and employment settings are all too real. Due to these factors, many who seek traditional services do so only when their condition is more severe and complex than if it had been addressed early in its development. The confidential nature of digital mental health tools and resources, including psychoeducation, can play a role in empowering consumers to address their concerns earlier. These resources can either give the consumer what they need at the time or direct them to the level of support required.

Initial client assessment questions

As part of your initial assessment of each new client, allocate some time to determine their digital literacy, as well as specific information about their:

- Use of online mental health assessment tools and mental health resources

- Current and past uses of mental health apps
- Involvement in online support groups
- Use of wearable health technology, such as a watch that tracks activity
- Interest and willingness to incorporate technology to support therapy.

These questions will assist your treatment planning by helping you to understand which resources the client has already utilised and which ones are likely to benefit them as part of their treatment. For example, are they a good candidate for using a post-traumatic stress disorder (PTSD) app to complement the CBT for PTSD you are looking to provide the client?

Key points

- ⊙ Head to Health is a government-funded digital mental health resource that provides clients with information about their condition and evidence-based treatment options.
- ⊙ The IAR-DST, developed by the Australian Government Department of Health, aids primary healthcare clinicians in finding the appropriate level of care for individuals seeking mental health support within the stepped care approach.
- ⊙ PsychProfiler is a digital screening tool that can be useful for your clients to complete prior to initial assessment.
- ⊙ Mental Health Online assesses the type and severity of the user's difficulties, assists them to better understand their mental health needs and provides treatment suggestions.
- ⊙ The future of assessment will combine comprehensive screening tools with virtual agents, creating engaging face-to-face interactions that reduce subjectivity and improve assessment efficiency.
- ⊙ Online resources can help combat stigma and improve mental health service uptake.

- ⊙ Allocate time during the initial assessment to inquire about the client's digital behaviours, including their past and current uses of mental health apps, participation in online support groups and interest in utilising technology to support therapy or monitor symptoms.

● CHAPTER 3 ●

Client and psychologist matching

When a client gets a referral to see a psychologist, they typically call potential psychologists in the hope of obtaining an appointment within a reasonable timeframe and at a price they can afford. The client often has limited information about the psychologist, and the psychologist has somewhere between no information and a moderate amount of information about the client. The client attends, and if the psychologist is not a good fit, the process starts over. This situation is far from ideal for a person who is making the very difficult decision to engage with a psychologist. There must be a better way.

Enter client and psychologist matching. The goal of matching is to ensure a good fit between the client and the psychologist, which can contribute to more effective therapy outcomes. In recent years, the trend has been towards innovative psychology practices that match clients with psychologists in new and improved ways, including based on outcome data.

In 2016, we introduced an allocation system at Mind Health Care. Client engagement and dropout were tracked and analysed, and then, based on the data, adaptations were made to improve our client engagement. This process saw the number of early and unplanned closures reduce in subsequent years, and the average number of sessions per client increased. The clients were happier, the referring doctors were more satisfied, and the psychologists experienced reduced client cancellations, non-attendance and dropout.

Although it was fascinating, the process took a lot of hard work. We collected much more client data before booking the first appointment. Gone were the days of making a booking right after the client's first call and asking them to bring their referral. The old system was primitive, but introducing a new system caused some resistance from clients, referrers, reception staff and psychologists. Change was hard, but maintaining the status quo would have been far worse. The administrative workload increased as each referral was matched with a psychologist's data-informed preferences, which were based on which presentations the psychologist was achieving their best outcomes with. We moved away from what each psychologist wanted or was interested in towards what they could back up with data that they were best able to treat successfully.

Several surprising things were discovered during this process, such as the 'magical' fourth session. Very rarely did clients drop out after the fourth session. In general, clients either dropped out in sessions one to three or continued to a planned closure, where the client and the psychologist discussed ending treatment and decided on it together.

As mentioned, the system created resistance. Where was the evidence base for assigning one psychologist over another? And the critics were right: there was no research to justify such a system. But neither was there any research evidence to justify randomly booking the next client to call asking for an appointment with the psychologist who has the earliest availability. There *was* reason to challenge the way we had always done it and consider more informed, systematic, data-driven approaches.

Nowadays, there is much more evidence from around the world that supports the intuitive logic of matching. A criticism of the Mind Health Care method is that matching ultimately relies on a human to match the client and the psychologist, which has the potential for human bias. AI-derived matching is possible but is not currently

practical for practices that are not operating on a massive scale. Let us explore some of the issues and visit some of the companies at the cutting edge of systematic evidence-based matching.

System-level client–psychologist matching

Transparent information about psychological services, expertise areas and provider availability is still lacking for clients trying to identify a psychologist to engage with. Moreover, a lack of communication between health specialists, such as doctors and psychologists, means that clients often receive inappropriate treatment, leading to poor functional outcomes and despondency towards treatment options. Digital technology offers the opportunity to address these service gaps and engender systems reform to make mental healthcare more accessible. The role of these technologies will be to complement high-quality professional care while easing the current burden on clinicians by making processes more efficient, targeted and personalised. Eventually, the technology will catch up, and clients will be able to find the specialist with the soonest availability in their local area who possesses an evidence base for treating their specific issue. In North America, for instance, there has been massive investment in creating digital pathways to link clients and providers with specific health issues.

In Australia, we still need to develop solutions to improve individuals' abilities to find the care they need when they need it and where they need it and deliver it on their terms. This will assist psychologists in providing more targeted and evidence-based treatment to clients via improvements in data-informed care. Client–psychologist matching has taken on a life of its own in recent years, with some of the largest mental healthcare providers in the world developing data-informed matching systems that are now being applied at scale.

SonderMind

SonderMind, an American company, has created a comprehensive system where psychologists are supplied referrals based on evidence-based, AI-derived client–psychologist matching. The psychologists provide session-by-session outcome measures, which are fed into an ever-increasing dataset. Then, machine learning and AI technology increase the likelihood of successful matches over time, as an increasingly large dataset is used to refine the matching algorithm. It is hoped that improved matching will not only lead to better outcomes for clients but also enhance psychologists’ work satisfaction because they can obtain more referrals in areas where they have a proven track record of delivering successful interventions. It will also reduce psychologist burnout, an important element in maximising the available workforce. Check out the SonderMind website at <https://www.sondermind.com>. It is surely only a matter of time before similar technology is deployed in Australia.

LifeStance, Alli Connect and Talkspace

Several outpatient mental health providers in the US are developing and refining models similar to SonderMind to efficiently and effectively match clients with providers. LifeStance, the largest among them, with over 5,000 clinicians spread across more than 600 sites, has an online booking and intake process that includes a patient matching element.

Similarly, Alli Connect is a patient matching technology provider that uses AI to match patients to providers across 12 different domains and over 150 endpoints. The AI platform then tracks patient engagement and clinical outcomes and learns which aspects of the match lead to better outcomes. According to Alli Connect’s chief executive officer, Colleen Hilton, ‘We can reasonably assume that

we can get better clinical outcomes, which creates a whole flywheel of impacts not only for patients but also for the larger system [. . .]. It really creates a beautiful feedback loop [. . .]. Notably, the good fit [. . .] came not from changing what the therapists did in their treatment, but rather who they treated.'

Patient matching is also central at Talkspace, one of the US's largest digital-only mental healthcare providers. Talkspace uses a matching algorithm that monitors patient outcomes and assesses providers' performance to keep refining the system. The company's data include over six billion words sent via asynchronous messages, four million completed psychological assessments, about 700,000 diagnoses and one million progress and therapy notes. The Talkspace model gathers client and therapist data and screens the therapist population to match the patient's characteristics, clinical needs and preferences.

Client waiting lists

A single-source digital platform that tracks psychologists' wait times and allows clients seeking support to easily connect to those psychologists available in their local areas *should* be available. Clients should also be effectively triaged according to their individual psychological needs. Such a platform can also triage to digital therapies while waiting for face-to-face care when required. This technology can easily be deployed in Australia, but alas, most search systems currently do not include the capacity to take on new referrals, likely wait times, information about fees and telehealth/face-to-face availability, nor do they have user-friendly search capacity for expertise areas. The closest thing we have is the Australian Psychological Society's Find a Psychologist service, which has some of these desired features but not all. Waiting time is a significant missing feature, and premium listings are opt-in, which means that viewers can only get the full information of a portion of the total

pool of available psychologists listed. Nevertheless, this free opt-in is an improvement from 2022, when the premium service was only utilised by psychologists prepared to pay A\$198 to be listed. That was quite an investment for a psychologist when supply and demand were so heavily weighted towards the psychologist not needing to market their services to obtain enough referrals.

The UK has recently implemented a centralised system by creating a National Health Service (NHS) mental health waiting list that guarantees patients referred for a mental health condition will be seen by a professional within 18 weeks of registering. This can be operationalised in Australia as a smartphone app where clinicians can register their areas of speciality, pricing and current availability. Clients would be able to search for a local psychologist through the app, view or join their waitlist and receive notifications when an appointment becomes available. This would allow and even facilitate clients to seek alternative support options while they wait. The platform would also improve the current referral system's efficiency by making the most of the available workforce and offering practical assistance to GPs, who are often at a loss about where to send clients with mental health concerns.

Digital resources can potentially be used routinely by GPs to refer clients to psychologists in an evidence-based manner based on the psychologist's demonstrated performance, matching clients who have similar attributes. In our view, evidence-based client-psychologist matching will become widely recognised as one of the greatest advances in the history of psychology for productively treating mental health issues.

Key points

- ⊙ The traditional process of clients seeking psychologists and the lack of a good fit between them can be challenging. Matching technology aims to ensure a better fit between clients and psychologists, leading to more effective therapy outcomes.
- ⊙ Some psychology practices have introduced allocation systems based on outcome data to improve client engagement and reduce dropout.
- ⊙ Digital technology offers opportunities to address service gaps and improve mental healthcare accessibility. Companies such as SonderMind, LifeStance, Alli Connect and Talkspace are developing matching systems that use AI and outcome data to enhance client–psychologist matching.
- ⊙ A centralised digital platform can be used to track psychologists’ availability, expertise areas and fees, making it easier for clients to find suitable psychologists. This kind of transparency can be hugely beneficial to clients.
- ⊙ Evidence-based client–psychologist matching will become widely recognised as one of the greatest advances in the history of psychology for productively treating mental health issues.

● CHAPTER 4 ●

Websites

International mental health literacy initiatives

A large part of a psychologist's work life is spent teaching the same information over and over to one client at a time. Much of this teaching can easily be digitalised, from psychoeducation through to basic CBT skills. A key recommendation of the United Nations Commission on Health Employment and Economic Growth back in 2016 was to harness the power of cost-effective information and communication technologies to enhance health education, as it projected a shortfall of 18 million health workers by 2030.

One effort in this area developed by the World Health Organization (WHO) is Florence, the world's most extensive, freely accessible AI-powered digital health worker. Florence can share advice on a range of health-related topics, including healthy living, quitting smoking, reducing alcohol intake, COVID-19 vaccines and mental health. Currently available in seven of the world's most used languages, Florence can convey the latest WHO advice and counter misinformation. It is worth meeting Florence to see how responsive health information is likely to be delivered in the future, even though it is still somewhat clunky. Imagine when this technology progresses further and Florence can provide verbally interactive versions of the current tick-box and type-assessment screening tools, such as PsychProfiler, which we visited earlier.

Recommendation #2: Florence

Visit the Florence website to experience interacting with a virtual agent: <https://www.who.int/campaigns/Florence>.

The technology behind Florence was developed by a company called Soul Machines, which creates lifelike digital people using its human operating system platform and digital brain technology. This platform aims to enable researchers and organisations to leverage the full capabilities of human and machine collaboration. Soul Machines' technology is well placed to lead the way in facilitating the next generation of technology supplying healthcare digitally to consumers.

For an example of this technology, visit the Soul Machines website and experience talking to a digital person. Ask a specific question, such as 'how does CBT help a client with panic disorder?' You will receive a ChatGPT-powered response from a digital person. This novelty will become a routine daily occurrence for most people within the next 2–3 years as the nature of information retrieval moves from the written word to verbal interaction.

Recommendation #3: Soul Machines

Visit the Soul Machines website to experience interacting with a virtual person providing answers to your questions, powered by ChatGPT: <https://www.soulmachines.com>.

Australian mental health literacy initiatives

The Australian Government, in conjunction with the Australian higher education sector, has been active in creating mental health literacy resources. These resources are a direct response to the need

for reliable online mental health information to raise awareness of mental health concerns and connect people to solutions.

Another reason we need to provide high-quality digital options is that in a world where the reality of mental health services is long waiting times, the lack of affordable access and mental health stigma, people are going to use Google and other search engines to research their symptoms. This can lead to highly informed consumers, but there is also the very real possibility that they will receive misleading or harmful information. Moreover, pseudoscience is rife in the huge self-help market. Thankfully, we have made excellent progress in Australia to raise awareness about mental health and encourage people to seek treatment. One mechanism for achieving this is the use of high-quality, targeted websites.

myCompass

The Black Dog Institute's myCompass is a personalised self-help tool for mental health. With over 30,000 active users, it was designed to help those aged 18–75 years self-manage mild to moderate symptoms of depression, anxiety and stress. myCompass allows users to track their thoughts, feelings and behaviours and provides graphical feedback to help them recognise unhelpful patterns and triggers. It also recommends a range of online learning activities to the user based on their profile, or the user can select learning activities that interest them.

myCompass has been shown to be an effective public health program that can facilitate rapid improvements in symptoms and in work and social functioning for individuals with mild to moderate mental health problems. This is an evidence-based online resource you can potentially direct your clients to while they are on your waiting list. Digital interventions are sometimes described as accessible stepping stones to receiving psychologist-led support, and myCompass is an excellent example.

Made4Me

Mental Health Online's Made4Me program was designed to help consumers manage one or more mental health issues. The program provides personalised therapy and support to people experiencing depression, generalised anxiety, panic disorder, PTSD, social anxiety and obsessive-compulsive disorder. It uses a range of evidence-based therapeutic techniques, such as CBT, mindfulness and positive psychology, to help users build resilience, manage their emotions and improve their overall mental well-being.

This user-friendly online platform includes interactive modules, videos and activities tailored to the users' specific needs and preferences. It is accessible and affordable, and users can access it from anywhere with an internet connection. Furthermore, it is supported by a team of experienced mental health professionals who are available to provide guidance and support to users throughout their therapy journey.

The Made4Me program is an excellent opportunity for you to offer your client blended care. They can see you for traditional therapy while concurrently completing the relevant Made4Me program, which will provide comprehensive psychoeducation and further grounding in the evidence-based interventions you will be using as part of your treatment protocol.

Recommendation #4: Made4Me

Encourage one client who is particularly proactive and wants to learn more about their condition to use the Made4Me program: <https://www.mentalhealthonline.org.au/pages/about-the-made-4-me-program>.

This Way Up

Designed by the staff at St Vincent's Hospital in Sydney and the University of New South Wales, This Way Up allows users to take a brief online assessment of their current circumstances and directs them towards a level of care based on their responses. It offers a variety of free online programs on subjects such as depression, social anxiety and panic. In the coming years, more of your clients will likely have completed a program like This Way Up before seeing you. Such internet-based resources are not a replacement for traditional therapy services, but they should be viewed as a potential complement and, at times, as an alternative.

Key points

- ⊙ Online mental health resources in the form of websites can offer clients access to high-quality, scalable and cost-effective mental health resources.
- ⊙ These resources aim to empower individuals to understand and manage their mental health conditions better.
- ⊙ Efforts are being made globally to harness cost-effective information and communication technologies to enhance health education.
- ⊙ Florence, an AI-powered digital health worker, provides easily accessible and evidence-based mental health information.
- ⊙ Visit the Florence website to experience interacting with a virtual agent.
- ⊙ The Australian Government and the higher education sector have developed mental health literacy resources to raise awareness and connect people to mental health solutions.

- ⊙ Evidence-based digital mental health therapy programs, such as myCompass, Made4Me and This Way Up, offer personalised therapy and support for individuals experiencing mental health challenges.
- ⊙ Encourage one client who is particularly proactive and wants to learn more about their condition to use the Made4Me program.

● CHAPTER 5 ●

Apps

Mental health and wellness apps are an enormous opportunity for us to offer greater value to our clients. Many clients will have tried some type of mental health or wellness-related app before engaging with you. The challenge for you, the psychologist, is to select and encourage the use of apps that *enhance* the strategies you introduce in your sessions. Hence, you need to find apps that fit your treatment approach. By matching a client with a suitable app, you are providing them with a tool that is convenient, adaptable to their lifestyle and needs, and available 24/7 to provide support and reinforce the concepts you introduce in therapy sessions.

When we think of apps, we often equate them with younger clients. They are tech savvy and can seamlessly incorporate apps into their routines to improve their well-being through activities like relaxation and mood tracking. However, do not discount older clients! We have heard of wonderful examples of older psychologists and older clients making great use of apps for such issues as suicide prevention and PTSD symptom management.

Apps can play an important role in increasing mental health literacy and mental health skills in our society. Apps will not replace psychologists, but they can *enhance* the quality of service delivered to our clients. Here is a real-world example.

Kelly

Kelly was referred to therapy in response to an increasing consumption of alcohol, which was negatively affecting her functioning. Alcohol helped her to socialise and also to get to sleep at night. She wanted to make changes, but it was hard to break the habit. Thus, Kelly received a standard course of CBT and motivational interviewing for alcohol use disorder, but we also used a sleep app to work on her sleep.

Early in her treatment, Kelly almost always drank alcohol at night. It was such an ingrained habit that the link between alcohol use and sleep quality had been entirely lost. Observing her sleep data and seeing the difference in sleep quality between a night with no alcohol, a night with some alcohol and a night with a lot of alcohol was very motivating for Kelly. Sure, alcohol helped her to get to sleep quickly, but the sleep quality was low. She almost always felt flat the next day, and her performance at work and with her studies was impaired. Moving away from perceptions of sleep performance towards hard data encouraged her to make changes. Using a sleep app allowed us to develop specific and measurable goals to improve Kelly's sleep, which we know provides benefits relevant to a wide range of mental health conditions.

What are the primary therapy uses of mental health apps?

The four most popular uses of mental health apps are:

- Symptom tracking, such as daily tracking of mood, sleep and steps
- CBT and other therapy exercises, such as thought recording and thought challenging
- Gratitude and journaling
- Mindfulness exercises.

Before we explore specific apps, let us pause for a moment to consider some challenges associated with introducing apps into treatment.

The challenge of choice

The number of mental health-related apps has exploded. Recognising the gap between the supply of and demand for mental health services, app developers and investors have tried to create apps to bridge the gap. Given the volume of apps available for download, we can easily be overwhelmed by the choices available. Deciding which app to utilise can be a challenge.

The companies producing mental health apps vary substantially, from very large companies with valuations above US\$1 billion, such as Genoa, Lyra Health, Calm, BetterUp, Talkspace, Modern Health and Ginger, to an estimated 10,000–20,000 much smaller entities. The quality of their products also varies, with some apps being produced quickly with little consideration for the evidence base. Others are high-quality, evidence-based products with a long-term plan to invest in the app's development. So, how do we distinguish between them?

How do you choose an app to use with clients?

With tens of thousands of apps available and no regulatory body for them or clear guidance for psychologists about which apps are founded on evidence, it is a challenge to identify and ensure an app is backed by science. Hopefully, in time, professional bodies and the Australian Government will step up and provide much-needed guidance in a manner similar to how treatment approaches are approved by Medicare for use in practice, such as EMDR's inclusion in Medicare.

When looking for an app, consider:

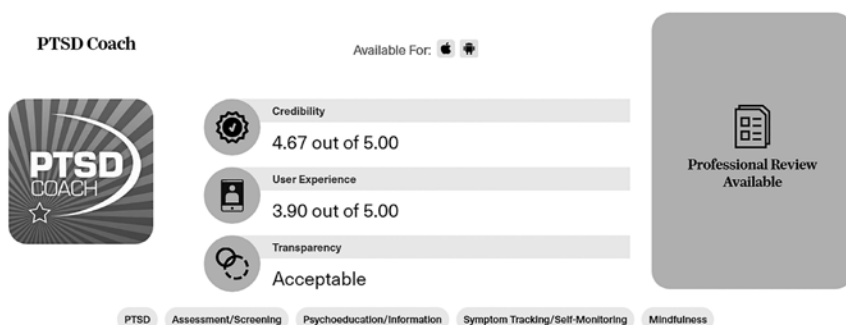
- What do you want the app to do for the client?
- Is the app user-friendly?
- Do you understand the data sharing and privacy policy?
- Is the app complementary to your practice?

One Mind PsyberGuide

One project helping consumers and healthcare professionals make informed choices is One Mind PsyberGuide, a non-profit website set up in 2013 dedicated to helping people navigate the digital mental health and well-being app market (sadly no longer producing new content due to a loss of funding). While it is not a comprehensive listing of the whole market, it rates hundreds of the most popular mental health and wellness apps available based on:

Criterion	Description
Credibility	The strength of the scientific research that supports it
User experience	The quality of the user experience
Transparency	The privacy policy and how user data are managed

To get a good rating on credibility requires the involvement of those with mental health expertise in the app's development. Companies that are looking to cut costs by eliminating or reducing such involvement risk reducing their apps' credibility scores. Below is an example of the information available on the One Mind PsyberGuide website for an app called PTSD Coach. This information is freely available to the public, who can click on the professional review to get further details about the app's pros and cons.



Recommendation #5: One Mind PsyberGuide

Visit the One Mind PsyberGuide website to search for an app and get clear information about its credibility, user experience and transparency, as well as read reviews about the app's advantages and disadvantages: <https://onemindpsyberguide.org>.

American Psychiatric Association App Evaluation Model

The American Psychiatric Association App Evaluation Model (APA AEM) is an excellent and concise framework designed to evaluate mental health and psychiatric mobile applications. It provides a structured approach to help individuals, clinicians and organisations assess the quality, safety and effectiveness of mental health apps. It consists of four key domains for evaluation:

- Usability – ease of use and user experience
- Privacy and security
- Evidence-informed content – scientific validity and the evidence base of the app's content
- Interoperability – the ability to integrate with other systems and services, such as electronic health records and other health apps.

The APA AEM establishes criteria and guidelines for each domain, allowing users to systematically evaluate an app. Utilising this evaluation model can facilitate informed decisions about the quality and suitability of mental health apps. Unfortunately, though, it does not provide a formal endorsement or certification of specific apps.

Government-supported app assessment initiatives

While various organisations worldwide are attempting to develop standards to ensure digital mental health tools are safe and effective, Canada is currently at the forefront at the national level. Led by the Mental Health Commission of Canada, a collaboration of more than 200 stakeholders, including consumers, developers, researchers and the government, has developed an assessment framework for mental health apps.

Similarly, in the UK, the NHS has introduced the Digital Technology Assessment Criteria (DTAC) for health and social care to provide criteria to assess digital health technologies that are being considered for implementation in the NHS. The DTAC focuses on clinical safety, data protection, technical security, interoperability and usability.

The National Institute for Health and Care Excellence (NICE), which serves England, has a framework for evaluating the evidence base of digital health technologies. Anyone can go to the NICE website and look up technologies that have been approved, such as Sleepio, a digital self-help program that includes CBT for insomnia (CBT-I). The best practice recommendation is to refer for face-to-face CBT-I, but that is limited in the UK, as well as in many other countries. However, clinical evidence shows that Sleepio can reduce insomnia symptoms comparable to sleep hygiene and sleeping pills. It is a great example of technology being used to assist those who cannot or will not obtain gold-standard face-to-face services.

Another source for identifying credible apps to use with clients is the US Department of Veterans Affairs App Store (VA App Store). The VA App Store has a wide variety of free mental health-related apps that are considered to be well researched.

Recommendation #6: VA App Store

Visit the VA App Store to get a sense of what is available that you may want to use with clients: <https://mobile.va.gov/appstore>.

Other organisations active in assessing and accrediting mental health apps are the UK-based Organisation for the Review of Care and Health Apps and the M-Health Index and Navigation Database (MIND) of the Washington University School of Medicine in St Louis in the US. The welcome video on the MIND website provides practical information for psychologists looking to identify an app to use with clients.

Does the client have the digital literacy to use an app?

Before considering the introduction of an app, you should assess the client's capacity and willingness to use an app. Just as you would not introduce a written journaling task to a person who cannot write, you should first determine whether the client has the digital literacy skills to be able to use and benefit from the app. Consider the following questions:

- Does the client already use apps?
- What types of apps do they use and why?
- Are they open to using an app as part of their work with you?

Informed consent

Like any traditional intervention, an app should be presented as an option for the client to consider, along with your rationale of the advantages and disadvantages of using it. Some clients will ask you how their data will be stored and used and convey concerns about their privacy and confidentiality, so be prepared for these questions. Make sure you are satisfied with the answers yourself and can clearly articulate them to the client. It is also a good idea to address these questions proactively as part of introducing the app. For example, you can say, ‘There is an organisation called One Mind PsyberGuide that has expertise in rating mental health apps. According to its assessment, this app rates well for transparency, which means its privacy policy and how the user’s data are managed are considered appropriate. You can check out their review of the app on the One Mind PsyberGuide website.’

When suggesting any of these resources, thoroughly review and understand their privacy policies regarding data security and the safety of personal information, and you should advise the client to exercise discretion when sharing sensitive details. If the app offers the user the ability to share their data and you consider obtaining the data helpful for your work with the client, you can add, ‘If you feel comfortable doing so, I would love it if you share your data with me before our next session. You can download your data and send them to me by email.’ With this approach, you get better client engagement and better outcomes by referring to your client’s app data and asking about their app experience.

A practical example of data sharing from an app is the safety plan component of the PTSD Coach app mentioned earlier. The user can create a safety plan, which can easily be exported and shared. The user can print a copy of their plan for personal use, or they can send a digital copy to their psychologist.

How do you introduce a mental health app?

Introducing a digital tool entails several considerations, many of which mirror those applicable to more traditional adjuncts, such as recommending an article, a book or the use of a workbook. A couple of these considerations are discussed below.

Link the use of the app to your client's goals

You should have a clear understanding of the client's issues, goals, abilities (such as reading capacity), technological aptitude and willingness to engage in activities outside the sessions. It is critical to connect the choice to use a particular mental health app with the client, their condition and their treatment goals.

Have a working knowledge of the app by using it yourself

You must have a working knowledge of the app you are recommending to optimise its use and support the client in using it. Only introduce apps that you have trialled yourself to a degree that you are a credible source for recommending them. Reading a review of an app without actually using it yourself is likely to lead to lower compliance. Just like any intervention, you need to be an advocate for the app and convey enthusiasm for why it will be helpful for the client. Get excited about the app and refer to specifics that demonstrate your working knowledge of it. 'You know, you can set the time that the app gives you a notification. I found it most helpful to get a reminder around tea time. What time do you think will work best for you?'

Out-of-session task compliance and assessments

One area where apps are excellent in assisting therapy is in improving home-based task completion. Homework tasks are an essential

component of most evidence-based treatments, and using a well-targeted app can help engage the client in out-of-session activities. Many apps provide daily and weekly notification prompts to engage the user, and many clients would rather be on their phones than filling out paper forms anyway.

Furthermore, apps can utilise ecological momentary assessments to obtain a more detailed and timely understanding. For example, suicidality is generally assessed during client and provider appointments, but it is susceptible to recall bias and fluctuations in emotions. By contrast, an app can send notifications for assessments to be made multiple times a day. Hence, apps can help the motivated client speed up the treatment process. Finally, apps can also increase treatment fidelity by challenging the psychologist to fit a treatment with the standard – for example, standardised CBT.

Psychologists must support the use of apps

As a psychologist, you have a lot of influence over whether your clients utilise digital interventions, including apps. To properly engage the client in the treatment, you need to be an advocate for the app you are recommending to them in the same way that a CBT therapist needs to be an advocate for CBT. The varying quality of mental health and wellness apps is one reason apps have developed a reputation for being downloaded but not used by consumers for any length of time. One estimate suggested that the likelihood of an initial user continuing to use an app after 14 days is only 3.9 per cent. Unsurprisingly, apps developed in consultation with psychologists or other mental health professionals stand the best chance of getting some traction in the market.

You can play an important role in encouraging the use of apps, increasing compliance and empowering clients to continue working on their mental well-being beyond the therapy room. To improve engagement, follow up with your clients on their usage of

the app you recommended and integrate the app content into their treatment, just as you would a traditional form of homework task, extending what is being done in therapy between visits. Clients can sometimes place too much importance on treatment in the consulting room and not enough on activities outside the consulting room, and apps can help foster balance in this area.

Stay abreast of emerging trends in mental health apps to ensure you can respond and adapt to client preferences. Unlike therapeutic approaches, such as CBT, whose level of popularity is more driven by practitioner preference than client choice, the apps that will become the most popular will be decided by the clients. Hence, this is an area where we must step up and do the work to go on the journey with our clients and lead the conversation towards value-enhancing apps. Otherwise, it will be the clients doing the leading.

Mentally healthy workplaces

One factor driving the development of mental health apps is the nature of healthcare in the US. For many Americans, health insurance is a very expensive perk of employment paid for by their employer. As a result, progressive employers are highly motivated to ensure the health of their workers and incentivised to invest in employee wellness programs that frequently include digital tools. This is because they hope to reduce their healthcare costs and enhance non-clinical outcomes, such as increased productivity and reduced absenteeism and staff turnover. In Australia, health and safety legislation is expanding to consider mental health and requiring companies to ensure mentally healthy workplaces. It will be interesting to see if Australian workplaces follow this trend in the US.

Meditation apps

Calm

How many of your clients use Calm? Despite costing A\$79.99 per year after a free seven-day trial, Calm has been downloaded more than 100 million times, and users have provided over 1.5 million five-star reviews. Calm helps users improve their health and happiness by focusing on sleep, meditation and relaxation. The app offers breathing sessions for mind and body relaxation, bedtime stories and soothing nature scenes, as well as a variety of meditations, such as body scans, walking and guided and unguided sessions. Apps such as Calm have become so widely used that it is worth routinely asking your clients about their app usage as part of your intake assessment. Your clients may well be utilising techniques that can be integrated into the treatment, so you cannot assume they are not using any strategies. Rob, whom we met earlier, was a huge fan of Calm before starting his work with a psychologist.

Mental health skills apps

Happify

Happify is another popular app using positive psychology, mindfulness and CBT principles to build users' well-being skills and emotional resilience. John Gottman, renowned for his relationship therapy, is part of a large group of experts behind Happify. The content is shaped for the user based on the details entered, such as relationship status, age, gender and self-reported stress levels. Happify provides a range of engaging activities, including quizzes, games, guided meditations and interactive exercises. These activities target specific areas, such as stress reduction, mindfulness, gratitude, resilience and positive relationships. The app also offers progress tracking and personalised recommendations based on individual goals and preferences. Some content is free, but to access all the features, a monthly or annual subscription is required.

Sanvello

Sanvello is an app that offers various tools and resources to help users manage their mental health. The app provides access to CBT tools, interactive mood and health tracking, and guided meditations. It also offers access to video and phone therapy sessions with licensed mental health professionals. In addition, it has a supportive community and social platform that connects users with others who are going through similar experiences. Sanvello is available for iOS and Android devices, and the basic version is free to download. However, some features, such as live coaching and therapy sessions, require a subscription. Although this app is focused on consumers in North America, Australian psychologists need to be aware of this type of product. While it offers a level of integration between digital resources and traditional psychotherapy that is not yet widely available in Australia, this is the type of model that is likely to become increasingly prevalent here in the coming decade.

Iona Mind

The app Iona Mind offers personalised techniques and exercises to help individuals manage stress and anxiety and improve their mental well-being. These techniques include mindfulness, relaxation exercises, CBT principles and more. The app provides self-assessment tools to help users understand their mental state, set targets related to their mental health and track their progress towards achieving their goals. This can assist clients to stay motivated and focused. Moreover, Iona Mind allows users to maintain a digital journal to express their thoughts, emotions and experiences.

Moodfit

Moodfit is an app that helps users understand and improve their mood, increase their resilience and accomplish their goals. It uses CBT principles, thought records, meditation and gratitude

journaling to treat mood fluctuations that may be due to depression, stress and anxiety. Users can create their own goals or choose from defaults, such as mood, sleep, gratitude and nutrition. One Mind PsyberGuide rates Moodfit 2/5 for credibility, and yet it has won a multitude of awards. Hence, Moodfit is an example of an app that is not rated highly by PsyberGuide, but some of your clients may have used it. Award-winning apps are not necessarily those with the highest credibility ratings, so you cannot assume popular equals good.

Apps for mood and symptom tracking

For individuals managing depression, bipolar disorder or other episodic conditions, monitoring their moods through a dedicated app can be useful. These conditions often come with unpredictable mood swings and fluctuations, making it challenging to recognise patterns and triggers. Utilising a mood monitoring app offers several benefits, such as a structured platform to record daily emotions and feelings, timely reminders and graphs that can be interpreted at a glance. These data can be pivotal in identifying potential mood triggers and understanding the factors that influence a mental state, such as sleep, hormonal cycles or certain activities. Moreover, the app's tracking feature allows users to note changes over time, enabling them to spot trends or detect early signs of depressive or manic episodes.

By having access to this valuable information at their fingertips, individuals can proactively seek support, implement coping strategies and work with their psychologists to tailor their treatment plans more effectively. Ultimately, a mood monitoring app can empower those with bipolar disorder or depression to take an active role in preventing an episode and give them a sense of capacity to influence their mood by fostering self-awareness and enhancing their use of the skills taught in therapy sessions.

eMoods

eMoods can help individuals track and manage their mood symptoms. If you want your clients to self-monitor and gain insights into their mood patterns – particularly useful for those with bipolar mood swings – then eMoods is a good option. Its key features include:

- Daily mood tracking
- Symptom tracking of relevant symptoms associated with mood disorders, such as anxiety, irritability, sleep patterns, medication adherence and significant life events or triggers
- Data visualisation for a visual representation of the user's mood and symptom data over time
- Exporting and sharing eMoods data, such as emailing a PDF of the data to their psychologist.

Daylio

Daylio is a mood tracking and journaling app that allows users to track their moods and activities, and it features:

- A simple colour-coded system to quickly record mood and activities
- The ability for users to add notes to their entries to provide additional context
- Insights and statistics about mood patterns
- Visual reports and charts to help the user identify patterns in their emotions and behaviours
- Optional reminders and notifications to prompt the user to log their moods throughout the day, helping to establish a consistent habit of tracking.

Bearable

Bearable has a customisable tracking interface to help individuals monitor and manage their overall well-being. It allows users to track various aspects of their health, including physical symptoms,

moods, pain levels, sleep quality, energy levels, stress levels, medications, exercise, diet activities and treatments, to gain insights and identify patterns, which are personalised using AI. Users can also add notes and details about their experiences to capture a comprehensive picture of their health. A key feature is its ability to analyse the data entered by users and generate visual reports and trends. These reports can help users understand the connections between different variables and identify potential triggers or patterns that may affect their well-being. In addition to tracking and analysis, Bearable offers goal setting, reminders and integration with other health apps and devices, allowing users to sync and consolidate their health data in one place.

How We Feel

How We Feel is an emotional wellbeing app that allows users to track their emotions and identify patterns via regular ‘check-ins’ that assist users to practice evaluating and describing their emotions. This free app also provides educational resources to learn more about emotions.

Sleep tracking apps

As psychologists, we can learn a tremendous amount from our clients’ sleep data. We frequently ask clients about their sleep, but what we are really asking for is their *perception* of their sleep. When a sleep app is integrated into treatment, we can use solid data to monitor and work on the client’s sleep.

Sleep Cycle

If you are looking to focus more on what your clients are doing between sessions and after an episode of treatment ends, then Sleep Cycle is an excellent place to start. It allows your clients to learn independently about a subject critical to their mental

health, and they can continue to use it long after your sessions have ended.

Recommendation #7: Sleep Cycle

Use Sleep Cycle yourself for at least one week and consider whether this may be something that your clients can benefit from:

<https://www.sleepcycle.com>.

Sleep Cycle provides data on a wide range of sleep-related variables, including sleep quantity, sleep quality, restlessness and time to get to sleep. It also tailors short and simple advice to the user's data for the user to improve their sleep performance. Recently, Sleep Cycle launched another app called Sleep Cycle Kids, designed for parents to help their children sleep better, optimise their well-being and create a positive sleep culture.

Sleepio

In 2020, NICE, part of NHS England, recommended that people suffering from insomnia try an app called Sleepio, which has a virtual sleep assistant powered by AI software. Developed by sleep experts and based on CBT-I, Sleepio offers a structured and evidence-based approach to addressing sleep difficulties to help individuals improve their sleep and overcome insomnia. It is currently only available through employer benefit plans for those working with an employer with an arrangement with Sleepio or through the NHS. Nevertheless, it is important for you to be aware of this type of digital mental health aid being utilised in government-funded healthcare.

PTSD apps

PTSD Coach

PTSD Coach was developed by the US Department of Veterans Affairs and is targeted at veterans, but it is relevant and available to anybody with PTSD at no cost. It can provide education, self-assessment, symptom management and social support. Based on empirically supported interventions and principles, it is available for iOS and Android and can be used as a self-help tool to enhance the work you are doing with a PTSD client. This app:

- Assists users in managing and coping with PTSD symptoms
- Provides information about PTSD, its symptoms, causes and available treatment options
- Allows users to take self-assessment tests to evaluate their PTSD symptoms and track their progress over time
- Offers a range of coping tools, including relaxation exercises, grounding techniques and mindfulness exercises, to help users manage stress, anxiety and other symptoms associated with PTSD
- Includes tools to help users track and manage specific PTSD symptoms, such as sleep difficulties, anger and irritability.

Smoking cessation

QuitGuide

QuitGuide is a mobile application developed by the US Department of Health and Human Services to support individuals to stop smoking. It provides helpful tools and resources for those who want to quit and maintain a smoke-free lifestyle. The app has the following key features:

- It helps users create a personalised quit plan based on their smoking habits, quit date and motivation.

- Users can track their cravings and triggers to better understand their smoking patterns and identify strategies to overcome cravings.
- Users can monitor their progress in real time by tracking the number of smoke-free days, cigarettes avoided and money saved since quitting smoking.
- It provides information about the health benefits of quitting smoking at various milestones, such as improvements in lung function and circulation and reduced risk of smoking-related diseases.
- It offers messages, tips, and encouragement to help users stay motivated.

QuitGuide is available for free on both iOS and Android devices. It is an excellent adjunct to enhance the work you are doing with a client trying to cease smoking.

QuitStart

QuitStart is an alternative to QuitGuide and has similar features. QuitGuide and QuitStart are the type of app many of your clients will have tried before seeing you, so it is always worth asking.

Suicide prevention apps

BeyondNow

BeyondNow is a popular suicide safety planning app developed by Beyond Blue. It is a useful tool you can use to complement ongoing treatment and support of a suicidal client. The app creates and customises a comprehensive safety plan that includes strategies and resources for the user to stay safe and seek support based on their needs and preferences. It can identify warning signs and triggers for when the user's mental health may be deteriorating or when they may be at risk of suicidal thoughts or behaviours. Furthermore, it features distraction and grounding exercises to help the user

redirect their thoughts and manage distressing emotions during difficult moments and contains a list of important contacts, including trusted individuals, mental health professionals and helpline services, which can be readily accessed during a crisis. Information about common myths and facts surrounding suicide is also incorporated to help users gain a better understanding of suicidal thoughts and behaviours.

Additional apps worth checking out

Kindship

Kindship is a social networking app that helps parents of children with disabilities connect to chat and learn from each other about how to navigate the NDIS system.

Anxiety Release

Based on EMDR principles, Anxiety Release was developed by Australian clinical psychologist Mark Grant. It can be a useful tool for helping a client deal with a specific worry. This video shows a demonstration by clinical psychologist Chris Mackey of how the app can be introduced and used with a client in a session: https://youtube.com/watch?v=c8Rcax_Ktzg&feature=share.

Key points

- ⊙ You can enhance therapy by selecting and encouraging the use of mental health apps that reinforce and consolidate skills introduced in sessions.
- ⊙ One Mind PsyberGuide and the APA AEM can assist you in selecting appropriate apps to introduce in therapy.
- ⊙ Visit the One Mind PsyberGuide website to search for apps, get clear information about their credibility and read reviews about their advantages and disadvantages.

- ⊙ Visit the VA App Store to get a sense of what is available that you may want to use with your clients.
- ⊙ Apps can assist in improving compliance with homework tasks by offering prompts for clients to engage in out-of-session tasks.
- ⊙ Use Sleep Cycle yourself for at least one week and consider whether this may be something your clients can benefit from.

● CHAPTER 6 ●

Chatbots

We have been hearing a lot about the potential of AI through the mainstream media in recent years. Unsurprisingly, efforts have been made to apply AI technology to mental healthcare. A large and rapidly increasing number of mental health apps that utilise AI technology is now available in the Google Play Store and Apple App Store.

AI chatbots are a great example of where technology is *not* looking to replace psychologists but to enhance and complement the work of psychologists. A psychologist's expertise in communicating with authority based on experience, skill and judgement on a niche topic will always be highly valued. As we know, a few minutes of speaking with a psychologist can be more useful to the client than hours of internet searching. People facing difficult problems seek the comfort of a trusted person to understand their concerns and help navigate them. However, chatbots can be a free private entry to psychology for those who wish to use them. They can assist psychologists in helping clients practise strategies introduced in therapy, such as thought challenging.

Chatbots are systems that can converse and interact with human users using spoken, written and visual language, similar to Amazon's Alexa, Apple's Siri and Google Home. Chatbots are becoming prevalent in healthcare settings, providing education and support to patients. The research on chatbots shows they are a promising tool for improving mental health and well-being, and

they are a viable and seemingly effective method for obtaining mental health services via a smartphone or other device. The most obvious benefit is convenience, as clients can reach out to chatbots and get help at any time with little commitment or cost. Criticisms frequently relate to the chatbot not being responsive to the user and lacking the nuanced communication skills and empathy of a human.

While this was a valid criticism in the past – and there have been shocking examples of chatbots saying highly inappropriate things – this area has progressed rapidly. We are getting very close to the point where users will not be able to discern whether they are communicating with a person or a chatbot. Nevertheless, chatbots vary in intensity level. Some have no coaching or therapist support (e.g. Woebot), whereas others (e.g. Wysa) can be used with no support or in conjunction with a therapist available for purchase via the app.

Woebot

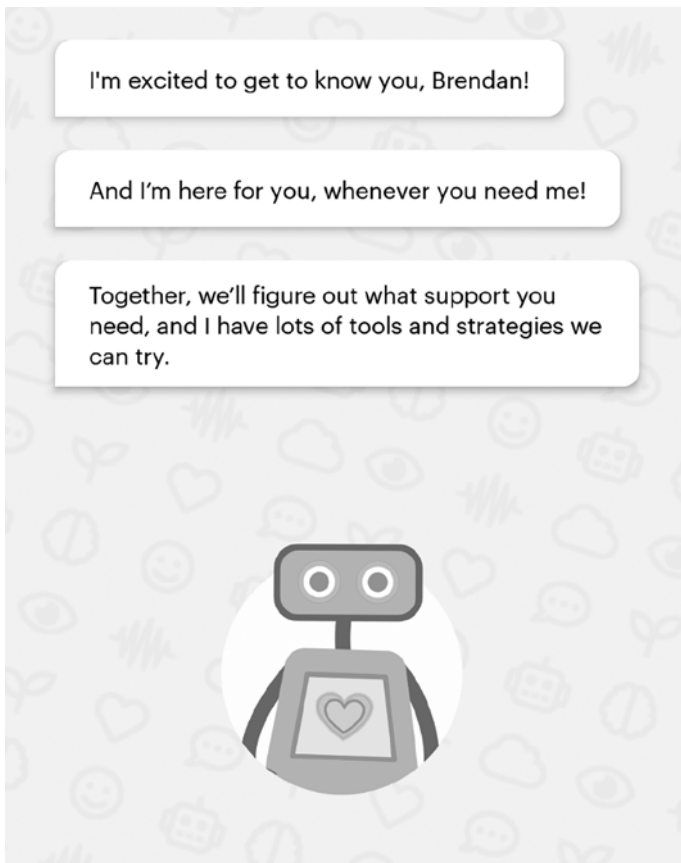
Note: Woebot was a great tool we loved using with our clients. However, it has been removed from the Australian market and is now only available in the US. Hopefully, it will become available again. In the meantime, it is still valuable to know about this wonderful product.

Woebot is an app that can be used as an adjunct to therapy in blended care, particularly for those who are younger and more digitally minded. Woebot helps users develop skills to challenge their thinking and build healthy habits using the principles of CBT, DBT and interpersonal therapy. It provides mood tracking, thought reframing and many of the things psychologists do repetitively throughout a normal workday.

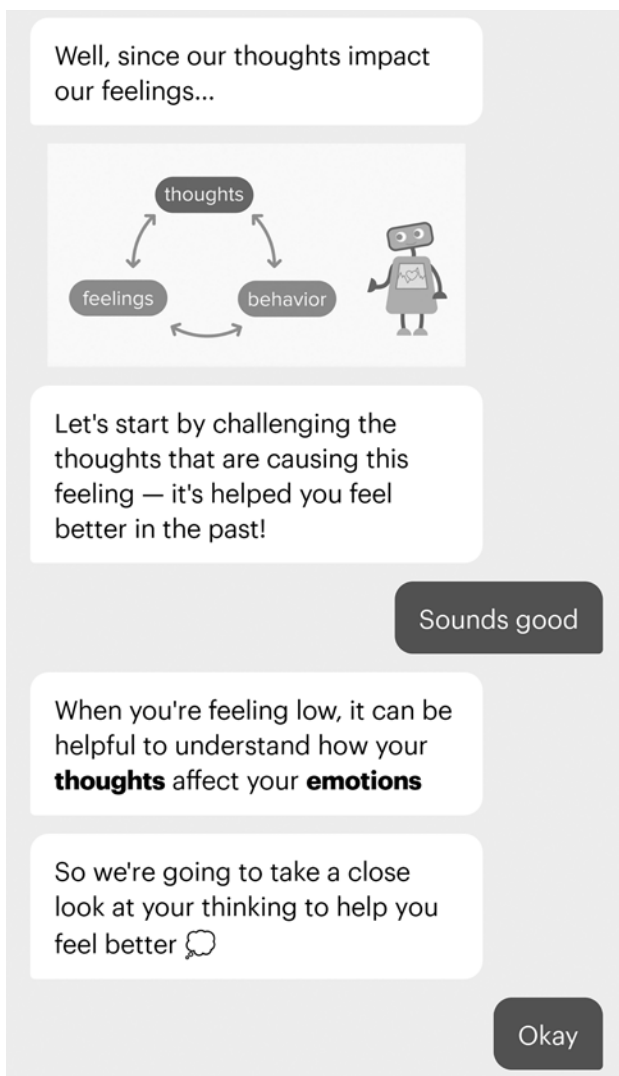
If you are apprehensive about introducing a digital tool such as Woebot, it can be helpful to remember that some people feel *more* comfortable confessing their feelings to an insentient bot than a

person, and we know that human-level bonds can be established via digital conversations with a chatbot. Generally, clients are highly receptive to such tools, but just like any other intervention, you should be guided by the client's preferences and your clinical judgement.

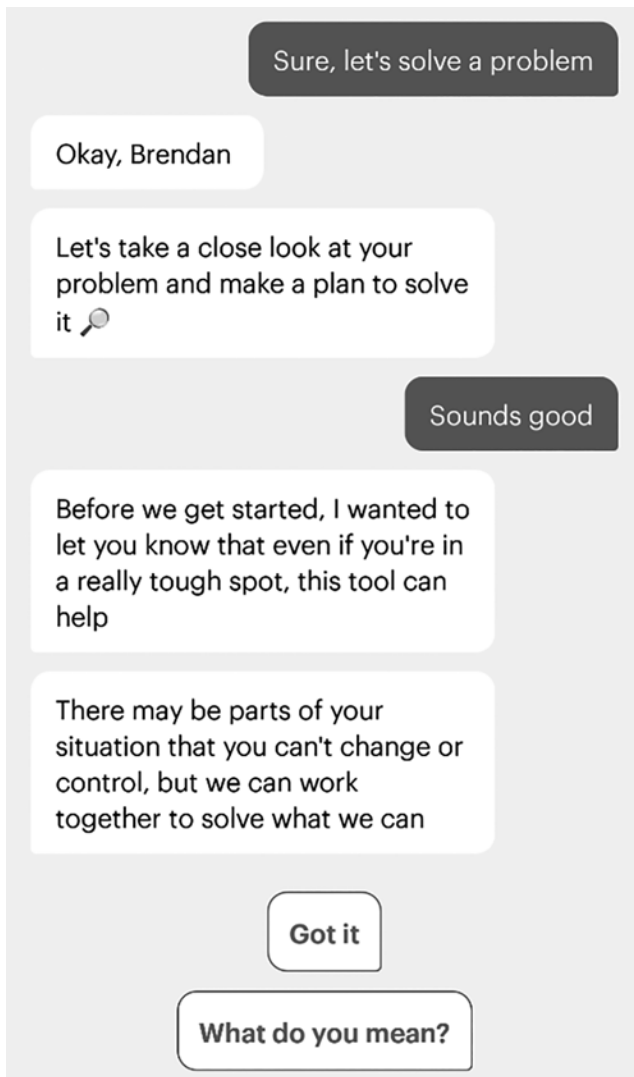
Note that the client can decide how frequently and how long they use the app. If the client allows notifications, Woebot will check in daily by asking questions, such as, 'How was your day?' Below is a sample of a first interaction with Woebot.



Next, Woebot introduces the user to the relationship between their thoughts, feelings and behaviour.



And then, Woebot elicits negative and unhelpful thoughts and helps the user reframe them. For instance, Woebot can be used as a resource for clients to use between sessions when you are taking them through a conventional course of CBT. It can remind them about and reinforce the concepts learnt in one-on-one treatment with you. Thus, clients who embrace tools such as Woebot may speed up their CBT skills development.

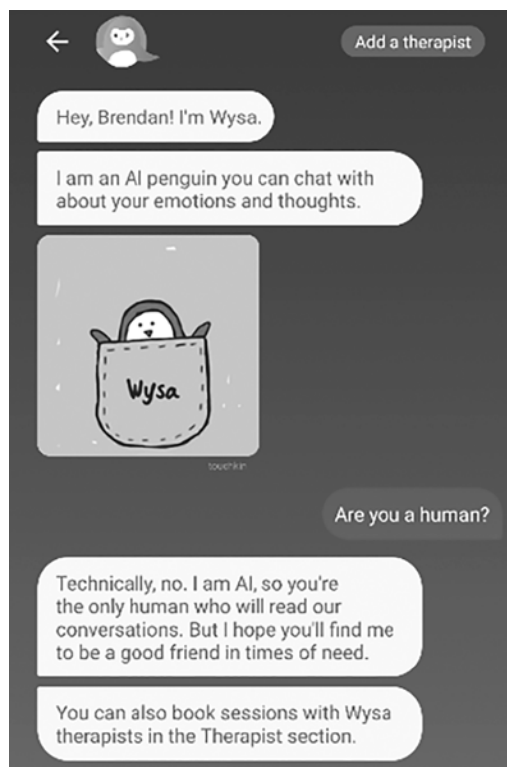


Woebot utilises AI advancements to provide human-like support. The technology driving this is likely to advance significantly in the coming years. One element steering this advance is the prevalence of social isolation in our society and hence the economic potential for companies that can create human-like AI tools. If you want to facilitate your clients' use of apps, Woebot is a great entry. Hopefully, it will become available in Australia again soon.

Wysa

Similar to Woebot, Wysa is a mental health app that uses AI to provide emotional support, self-care techniques and CBT exercises. Available in Australia, it is one of the most downloaded mental health support apps in the world, having facilitated over 100 million conversations in 65 countries. It offers a chat-based interface where users can communicate with an AI-powered chatbot, which engages them in conversation to identify and address their emotional needs. Wysa provides support for a range of mental health issues, including anxiety, stress, depression and grief, and it has guided meditations, breathing exercises and tools to manage negative thoughts and emotions. Moreover, Wysa has been clinically validated as a tool for reducing anxiety and depression symptoms.

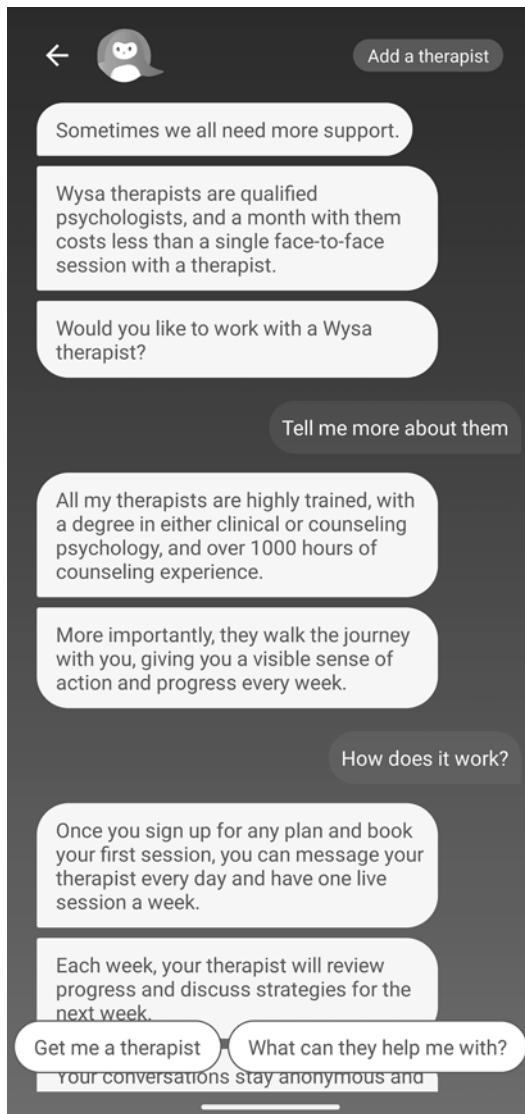
Below is a sample of a first interaction with Wysa.



And here is Wysa introducing the relationship between thoughts and feelings.



Wysa can also encourage the user to connect with a psychologist.



Merging an AI chatbot with access to a human therapist, Wysa is interesting to explore in terms of where this technology is going. You will notice that there is a button to add a paid therapist in the top right-hand corner of the app. Wysa therapists are clinical and counselling psychologists delivering telehealth services, and it is highly unlikely they are located in Australia.

Wysa is available on both iOS and Android platforms and can be downloaded and used for free. However, it offers additional paid features that can provide more personalised support and longer-term guidance.

Recommendation #8: Wysa

Use Wysa yourself for at least one week and consider whether this may be something your clients can benefit from:
<https://www.wysa.com>.

At present, when interacting with a chatbot, most users can easily detect when they are interacting with a machine. AI does not have the full emotional intelligence of a human yet, but this technology is advancing rapidly. While AI cannot feel, it is becoming increasingly good at producing a plausible, emotionally intelligent response based on consuming a huge amount of information from the internet. The current and historic criticisms of chatbots will become redundant in the near future.

As a result of the development of mental health apps, and particularly chatbots, there is concern among some that technology will replace traditional face-to-face therapy. These products are highly unlikely to upend face-to-face practice. They will support psychologists who are in high demand, intervening with clients who are awaiting care or requiring between-session support. They will *enhance* existing care. Chatbots are not a threat to psychologists; rather, they are an opportunity to add another tool to your toolkit.

Affective computing and the future of chatbots

Machines have ascendancy over humans for analysing large amounts of data quickly, and currently, humans have ascendancy over machines for reading human emotions. Nevertheless, machines are rapidly improving their capacity for the latter. Affective computing, also referred to as emotion AI, is a burgeoning field with roots dating back to the late twentieth century, and it is trying to challenge this human ascendancy.

Pioneered by Massachusetts Institute of Technology's Professor Rosalind Picard in the mid-1990s, affective computing aims to create technology that can recognise and respond to human emotions. Picard's work laid the foundation for integrating emotional understanding into computing systems. In the early 2000s, advancements in machine learning and data analysis provided new opportunities for affective computing. Researchers began to develop algorithms capable of interpreting facial expressions, vocal tones and physiological signals, enabling computers to infer human emotions more accurately. Hence, as computing power has increased, so has the sophistication of affective computing.

Scientists in the field of affective computing are working to create innovations to drive more user-friendly consumer-centric technology, so this is an important area for psychologists to be aware of. There has been immense investment in affective computing in recent years as businesses realise the scale of the commercial opportunity associated with being able to develop truly affectively responsive AI. The group that stands to benefit most are mental health consumers. This technology cannot arrive soon enough.

Key points

- ⊙ AI chatbots, such as Woebot and Wysa, aim to enhance, not replace, psychologists by providing support, CBT exercises and emotional assistance for those who are not engaged in therapy and between sessions for those who are engaged in therapy.
- ⊙ Woebot fosters skill development through CBT principles and can be used as an adjunct to therapy for clients by promoting engagement and reinforcing concepts learnt in one-on-one treatment.
- ⊙ Wysa is an AI-powered app offering emotional support, CBT exercises and tools for managing mental health issues.
- ⊙ Use Wysa yourself for at least one week and consider whether this may be a tool that your clients can benefit from.
- ⊙ Affective computing is striving to challenge the dominance of human emotion interpretation, and the technology is rapidly advancing.

● CHAPTER 7 ●

Digital therapeutics

Digital therapeutics deliver evidence-based therapeutic interventions to patients via high-quality software programs designed to prevent, manage or treat a medical disorder or disease. They can be used independently or in conjunction with medications or other therapies to optimise patient care and health outcomes. Digital therapeutic products incorporate advanced technology, best practices relating to design, clinical validation, usability and data security. They are regulated by the Food and Drug Administration (FDA) in the US and by NICE in the UK. Regulatory approval gives a product greater legitimacy to its claims regarding risk, efficacy and intended use.

Hence, digital therapeutics have to reach a threshold of quality assurance for a particular clinical indication to gain approval, just like traditional medical devices and pharmaceutical products. A significant financial investment is needed to push a digital therapeutic through the FDA/NICE process, so time to market can be unpredictable and take years. In addition, the resources required to build and maintain a digital therapeutic are substantial.

An FDA-approved digital therapeutic requires a prescription from a doctor, which is a barrier that prevents many people from connecting with digital therapeutic apps that may help them. So while the quality of digital therapeutics is high, the regulatory framework includes a barrier to access, and the prescription process adds to the cost of receiving the service. As a result, it has become a

strategic decision for a product developer to decide whether to aim to produce a digital therapeutic or an unapproved wellness app. The digital therapeutic versus wellness distinction is largely a US/UK phenomenon to be aware of, but it will likely become more relevant to Australia in the future.

A digital therapeutic product may adhere to some of the following:

- Treat, manage or prevent a disease or disorder.
- Produce a medical intervention that is driven by software.
- Incorporate design, manufacturing and quality best practices.
- Incorporate patient privacy and security protections.
- Apply product deployment, management and maintenance best practices.
- Publish trial results inclusive of clinically meaningful outcomes in peer-reviewed journals.
- Be reviewed and certified by regulatory bodies, as required, to support product claims of risk, efficacy and intended use.
- Make claims appropriate to clinical evaluations and the regulatory status.
- Collect, analyse and apply real-world evidence and/or product performance data.

Many FDA-approved digital therapeutics for various conditions are available, including attention-deficit/hyperactivity disorder (ADHD), cognitive impairment and substance use disorders. Investments in digital therapeutics companies in the US have grown substantially in the past decade, driven by two primary factors:

- Technological developments that have allowed huge amounts of data to be collected, from which advanced analytics can mine insights, such as smartphones and wearable devices
- Increasing recognition that digital therapeutics can have comparable clinical outcomes to face-to-face psychotherapy.

Momentum is building for digital therapeutics, and peer-reviewed studies show improved outcomes, either alone or in conjunction with conventional treatment, in a broad range of conditions, including ADHD, schizophrenia and insomnia. These trends are boosting the utility of digital therapeutics; thus, there is interest from all stakeholders in the healthcare system. Patients accustomed to consumer digital applications want convenient, trusted and informative healthcare products. Funders and providers want digital tools that can help them serve greater numbers of patients more effectively and at a lower cost. Pharmaceutical and medical device companies are seeking to develop digital solutions that improve current therapies and foster new ones, and governments who are keen to encourage digital innovation in healthcare are investing in digital therapeutics and evolving the regulatory framework to support their implementation.

In the next decade, we will see the emergence of a very different healthcare system powered by digital technologies, including digital therapeutics. At present, Australia is behind in this area, but we need to stay abreast of these technological developments and be ready to embrace them when they arrive.

Regulation and approval for digital therapies

Digital therapies pose unique questions for the regulators charged with approving them. The traditional quality control measures for drugs, such as strength and purity, clearly do not apply. The following questions are being asked:

- What will replace them?
- What might an appropriate placebo be in clinical trials?
- What would a digital therapeutic generic be?
- Would other elements on which the therapy might depend – perhaps the operating system, connectivity or the device – also need regulating, and if so, how?

- Would, for example, a patient whose digital treatment depended on a good internet connection need an approved device and internet provider?

The changing nature of digital therapy products is also a consideration. How should regulators approve a product that, by design, will evolve continuously? As digital therapies learn through AI and machine learning, their algorithms will change, which means a product will no longer be the same as the one initially reviewed and approved. When should another review occur? And will regulators consider system improvements as formulations that can extend patent life and thus protection forever? Industry experts are talking about digital products moving into a perpetual phase IV. As new data accumulate, such products will undergo testing against established standards in ever more granular populations and for new indications. This offers great potential in healthcare, but it also poses new challenges for regulators.

Seen as a global leader in tackling the issues that digital therapies raise, the FDA is shaping regulation in digital health. It has been receptive to new proposals to date and is keen to introduce regulation. One of the best examples of this is the FDA's Digital Health Software Precertification Program, a pilot for approving software-based medical devices. Conscious of how slow and ultimately unfeasible it would be to approve every software release for a digital product, the FDA is using this program to approve the developer instead. This way, product development can occur efficiently through rapid iterations and will not be mired in a constant approval cycle.

Significant efforts have been made in recent years by governments around the world to address safety concerns in digital and behavioural mental healthcare. For example, in 2021, the World Economic Forum and Deloitte launched the Global Governance Toolkit for Digital Mental Health with the aim of building trust in

disruptive technology for mental health. It provides governments, regulators and companies with the tools to protect personal data, ensure high-quality service and address safety concerns. In 2020, the New Zealand Ministry of Health was a leader in piloting the toolkit in response to a government inquiry into mental health.

The same year, following public consultation, the Australian Commission on Safety and Quality in Health Care developed the National Safety and Quality in Digital Mental Health Standards. While these standards are currently voluntary in Australia, they provide a framework for guiding developers and clinicians in choosing a digital mental health service. The standard can be found at <https://www.safetyandquality.gov.au/standards/national-safety-and-quality-digital-mental-health-standards>.

Who will pay? Reimbursement, value and business models

The ultimate test of the value of digital therapy is how much a customer/funding body will pay for it. Among the factors that will motivate funders to embrace digital therapeutics is evidence that they can reduce healthcare costs, particularly that they can reduce crisis care utilisation and reduce or replace expensive in-person visits with a psychologist or other mental health professional. A proven ability to do either of these raises the likelihood of reimbursement for digital therapy. Examples of companies attempting to show this are Myia Labs, whose digital therapeutic aims to reduce emergency hospital visits caused by coronary heart disease, and Pear Therapeutics, which aims to move care away from the clinic to save costs.

Similar nationally funded models for digital mental health interventions are active in Germany and the UK. Germany has a regulatory process to approve digital mental health interventions for reimbursement such that public health insurance reimburses

patients for their use of certain digital health applications. In the UK, CBT apps are being prescribed by the NHS following the conditional recommendation of NICE.

Digital therapeutics: real-world examples

In the coming years, psychologists will be challenged to transition to incorporating digital technologies due to clients' increasing expectations that digital interventions will be a mainstream element of clinical practice. Currently, the FDA has cleared more than 35 digital therapeutics in the US, and in the UK, nine digital therapeutics have been approved by NICE. Let us review three examples of those.

deprexis

deprexis is a web-based digital psychological therapy for clients with unipolar depression as either a primary or secondary diagnosis. It is a 12-week (90-day) program available in 10 languages. AI interacts with the user like a live therapist, asking questions and analysing responses to provide customised feedback and strategies to help manage depressive symptoms. The effectiveness of deprexis for depression reduction at post-intervention has been studied in 12 randomised controlled trials with 2,901 participants. The results showed that deprexis demonstrates a statistically significant improvement in depression symptoms when used as an adjunctive therapy. The important point here is *adjunctive therapy*, as deprexis is not intended to substitute for care administered by an appropriate healthcare professional; rather, it provides personalised CBT-based support to help improve depression symptoms. Currently, deprexis is available in a few countries, including the US, UK, France, Germany, Spain and Switzerland.

Recommendation #9: deprexis

Visit the deprexis website to learn about the type of digital therapeutic Australian mental health consumers may have access to in the near future: <https://www.deprexis.com>.

reSET by Pear Therapeutics

reSET, a prescription digital therapeutic approved by the FDA, is targeted at clients aged 18 and older with substance use disorder. It offers CBT as part of a contingency management system for those enrolled in supervised outpatient treatment. Indicated as a 12-week (90-day) treatment, reSET targets patients who are not on opioid replacement therapy and do not abuse alcohol solely or who do not abuse opioids as their primary substance of abuse. Its goal is to enhance abstinence from substance abuse and improve retention in outpatient programs.

NightWare

NightWare is an FDA-approved prescription digital therapeutic for clients with PTSD. It uses digital technology to detect and disrupt nightmares. As an Apple Watch program that learns the unique sleep profile of the user based on their body movements and heart rate, NightWare is a useful and practical technology for nearly three in four PTSD sufferers who experience nightmares. The user's sleep data are monitored in real time on the manufacturer's server to determine when the user is having a nightmare. The watch responds by vibrating to disrupt the nightmare, typically without fully waking the user. NightWare is currently only available with a prescription from a clinician for clients funded by the Veterans Administration and the Department of Defense in the US.

These are the types of digital technologies we are likely to see in Australia soon to help our clients manage depression, substance use disorder and PTSD. Digital therapeutics, in combination with digital health platforms, are well placed to swiftly transform the healthcare system in the coming years. Entrepreneurs will develop new technologies and leverage ideas from every discipline to solve the toughest medical problems, and product design will continue to improve. Providers and clients will also become more comfortable recommending and incorporating digital therapeutics into treatment.

Key points

- ⊙ Digital therapeutics are evidence-based software programs that deliver therapeutic interventions to prevent, manage or treat medical disorders or diseases and are often used in conjunction with medications or other therapies.
- ⊙ Digital therapeutics are regulated by the FDA in the US and by NICE in the UK.
- ⊙ FDA approval provides legitimacy to product claims regarding risk, efficacy and intended use. The regulatory process involves substantial financial investment and time commitment.
- ⊙ Digital therapeutics have shown effectiveness with various conditions, including depression, substance use disorder and ADHD. Peer-reviewed studies have demonstrated comparable outcomes to face-to-face therapy.
- ⊙ Visit the [deprexis](#) website to learn about the type of digital therapeutic Australian mental health consumers may have access to in the near future.
- ⊙ The value of digital therapeutics depends on their ability to reduce healthcare costs and improve patient outcomes.

● CHAPTER 8 ●

Outcome measurement

At first glance, John seems like a typical psychologist. He is a quiet, bookish kind of guy. He is well read, considered in how he goes about his work and very successful. His clients love him, and he is a favourite with the reception staff, who find him easy to deal with, always organised and on top of his game. However, it turns out that John is not a typical mid-career, highly successful psychologist. He has a fascination with new ways of working with clients, which, over time, has resulted in a big shift in his ways of practising. But this was not always the case. This shift started slowly and then grew.

For years, John had been using DASS-21 with his clients. All his correspondence to doctors included a graph of the client's DASS-21 total scores at the first and last sessions. The referrers and clients liked this, and John had proof that many of his clients were benefiting from his services – not all, but most. This was not much of a surprise to John's colleagues, as his diary was always full. Some clients waited months to get a first appointment with him, based on strong recommendations from their referrers.

One cold overcast May morning, John made his way up the stairs and through the foyer of the Adelaide Hilton into a large, noisy auditorium and took his seat for the day's conference keynote address. The scheduled speaker was Scott Miller, an American. John had only vaguely heard of Miller and had an even vaguer understanding of his work. Miller, immaculately dressed in suit and tie, proceeded to take off his shoes and start talking. Ninety minutes

later, an astonished John knew that when he got home, things were going to change. He had always wanted to be better, but now he had a roadmap of how to do it. John was too humble to think that he could become a ‘super shrink’ like some of the examples Miller had described, but he was prepared to try to do what those super shrinks did. Routine outcome monitoring (ROM), feedback-informed treatment (FIT) and measurement-based care (MBC) were phrases swirling through his mind.

Returning home, John used paper and pen to start doing some FIT. He also signed up for a free trial with one of the digital platforms assisting with ROM. John chose OpenFIT, but there were many others he could have accessed that did similar things. John began to enter his DASS-21 scores and experiment with using the session rating scale (SRS), which was pretty scary. At the end of each session, John would take out his iPad and hand it to the client to rate the session on four criteria: relationship (I felt heard, understood and respected), goals and topics (We worked on and talked about what I wanted to work on and talk about), approach or method (The therapist’s approach is a good fit for me) and overall (Overall, today’s session was right for me). Much to John’s delight, the clients thought everything was fabulous, but then, he remembered Miller saying that super shrinks do not get the highest ratings on this measure. Instead, super shrinks are good at presenting the SRS in such a way that clients feel comfortable giving less-than-perfect ratings. Thus, they are able to get feedback on how to improve their sessions.

John started deliberate practice outside sessions to work on how he could present the SRS in a way that clients would give him less-than-perfect scores. After a while, it paid off, and what he heard surprised him. ‘The first one really sticks in my mind,’ he said. ‘The guy wanted clearer goals!’ Here was John bending over backwards outlining and clarifying the goals in every session. In fact, he had a section for goals in his standard note-taking format, and

this guy wanted clearer goals! John's first reaction was to get defensive, and in the moment, he probably did not handle it very well. Looking back, he clearly needed more practice at receiving negative feedback.

For John, this reinforced how important having data is to inform psychologists' decision-making. We are well aware of the wide variety of cognitive biases, but it is a real eye-opener to be exposed to our own cognitive biases that not only protect us but also detract from our decision-making. Around this time, John began reading the scientific literature. He read that 90 per cent of psychologists rate themselves in the top 50 per cent for performance and that psychologists are terrible at identifying clients who are not progressing in therapy. John was seeing this in his own practice, and it was more than a little unsettling.

John kept working at it by collecting client feedback and adapting his style to the feedback. 'Yes, it was confronting, but it was also really exciting,' he recalls. John did not know what feedback he was going to get, and even now, he can never predict what sort of feedback his clients will provide. 'This is what makes it so important to ask. The feedback is gold.' John found himself less focused on the treatment approach, such as CBT, ST or DBT, and more focused on meeting the client's preferences. John also stopped using DASS-21 and started using the outcome rating scale (ORS), a condensed alternative with only four items instead of 21. In each session, John would show the client a graph of their ORS and SRS scores, and they would discuss the progress they were or were not making. For the first time in his 20-odd years of practice, John felt like he really knew who was improving and who was not. He also noticed that if the client was not improving in the first 4–6 sessions, they tended not to improve after 8–10 sessions either. Sometimes, John and the client who was not improving could adjust their approach. Other times, he referred them to a colleague.

Over the next few years, the average number of sessions John had with each new client reduced from 12 to six. The clients who previously might have drifted along, having 10–15 sessions per year several years in a row without making progress, were being highlighted by this approach. One of the most remarkable things was that the system seemed to feed upon itself. The more data John collected and the more he adapted, the more his client group improved overall. Over 20 years into his career, he could see he was improving as a psychologist year after year. He said, ‘For the first 15 years of my career, I was doing the same thing. I did all my CPD courses, and I loved going to the annual national conference each year. But very little of the content ends up getting applied in practice, and what does is never clear about whether it makes much difference to outcomes. By using ROM, I am making minor changes regularly and measuring the effectiveness of those changes.’

Value-based care

Another way to look at what John was doing is he was creating the highest possible monetary value for each session provided for his client, as well as for the government contributing the Medicare rebate. In recent years, funding bodies, particularly in physical healthcare settings, have been giving greater consideration to improvements achieved in exchange for the funding provided. Hospital readmission rates, for example, have become a measure of outcomes against the funds invested. This is part of a movement referred to as value-based care (VBC). Applying VBC to mental health at the system level has proven difficult, but John’s example shows that it is possible, and in time, VBC will become a mandatory guiding principle of the Australian mental health system, informing funding decisions. The unknown is when it will occur.

VBC will become increasingly important because consumers will vote with their feet and request a provider who uses ROM.

Today's consumer wants an experienced mental health provider or a specific treatment approach, such as CBT or EMDR. This makes sense if wanting somebody experienced and skimming publicly available information on treatment options are combined. However, the savvy client of tomorrow will ask for a mental healthcare provider who conducts ROM that they share with the client and the referrer. Clients do not care which treatment they receive; they care whether their concerns are resolved. ROM and client feedback can double the effect size for client outcomes, reduce dropout rates by up to 50 per cent and help identify clients who deteriorate during treatment. Sadly, few clients are aware of ROM at present.

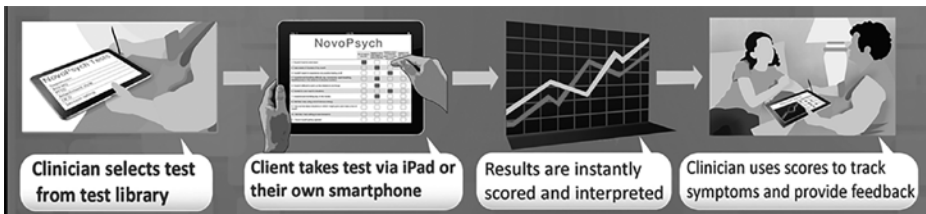
What does a book about technology have to do with ROM, FIT and VBC? Technology is what is going to allow ROM, FIT and VBC to flourish in the coming years. Many psychologists are aware of these terms but equate them to paper and pen administration, manual data collection and more paperwork. The biggest barrier to the widespread use of outcome measures is that it is perceived as time consuming. In the days of paper-based administration, this viewpoint may have had some credibility, but those who are using the latest digital technology to facilitate ROM and FIT know that technology has already changed this significantly. Technology has made it easier to use ROM and FIT, and we will see them embraced by psychologists in significant numbers.

Outcome monitoring platforms

One of the biggest opportunities offered by digital technology is the ability to track the outcomes of psychological treatments and guide treatment quickly and efficiently. The changes John made to his practice were powered by digital technology. For instance, digital data collection can significantly reduce the administrative burden. A range of digital platforms are available to help private practice psychologists collect and analyse client outcome data. We will now visit five digital platforms that are leading the way in this area.

NovoPsych

NovoPsych is a web-based platform that provides psychological assessment tools and resources for mental health professionals. It offers a range of assessments, including personality tests, cognitive assessments and diagnostic tools, for various mental health conditions. It also features progress tracking, report generation and secure data storage. Mental health professionals can use NovoPsych to streamline their assessment processes and improve the accuracy of their diagnoses. The platform is user-friendly and customisable to meet the needs of individual users. It offers a 15-day free trial before committing to a monthly or annual subscription.



NovoPsych provides access to over 100 psychometric instruments and tools for a variety of presentations, from personality disorders to attachment anxiety. The MBC paradigm is embedded into its design, whereby psychologists are encouraged to use psychometrics as an aid in formulation, treatment planning and outcome monitoring. The graphical representations of treatment progress are designed to be shared with clients and referrers, helping services provide personalised evidence of progress in treatment. NovoPsych includes a dashboard that aggregates outcome data and calculates the overall effect size of treatment.

Recommendation #10: NovoPsych

Utilise NovoPsych's free trial to experience it and consider whether it can help you and your clients: <https://novopsych.com.au>.

MyOutcomes

MyOutcomes provides outcome measurement tools, including ORS and SRS, for mental health professionals in its web-based platform. Allowing an unlimited number of ORS and SRS administrations, it also offers other tools and resources to help practitioners track and measure their clients' progress. MyOutcomes has eLearning courses on FIT and FIT deliberate practice and a variety of FIT-related resources. If you are looking for a single product to practise FIT and grow your knowledge about it, then MyOutcomes is a good option. You can utilise a 30-day free trial before you commit to an annual subscription.

OpenFIT

OpenFIT is an open-source version of the original FIT platform developed by Dr Scott Miller and colleagues. This web-based platform offers a range of tools, including client feedback surveys, progress tracking and data analysis features. It also provides resources to help practitioners integrate FIT into their practice, such as training materials and implementation guides. OpenFIT can improve the quality of care by facilitating tracking client progress and making data-driven treatment decisions. It is customisable and adaptable to meet the needs of individual practitioners and organisations.

Q-global

Q-global is a web-based platform that provides digital assessment tools and resources for mental health professionals, educators and researchers to streamline their assessment processes and improve the accuracy of their results. Its range of assessments includes cognitive, academic, personality and behavioural assessments. It allows users to administer assessments online or on paper and score them digitally. The platform also features progress tracking,

report generation and secure data storage. Q-global is designed to be user-friendly and customisable to meet various needs.

Wellify

Wellify is a client engagement platform that bridges the gap between mental health providers and clients. The platform features a user-friendly client-facing mobile app and an interconnected clinician-facing portal working in tandem to provide the client with tools and resources that have been curated for them by their provider. At the same time, it gives the provider real-time insights into their client's progress so they can deliver more personalised care. Wellify can be white-labelled to present with any organisation's name rather than the Wellify name. It can also be customised to fit the unique needs of different types of mental health services, from hospitals and community health services to private practices. If you are looking to provide a single source for your client to store and access the resources used in the sessions and their homework tasks or to foster communication outside of sessions, then Wellify is well worth exploring.

Integration with practice management platforms

To be integrated into standardised care, outcome measurement needs to be as easy as possible for both psychologists and clients. Recently, we have seen rapid technological advances to support psychologists in incorporating outcome measurement into their practice efficiently and effectively. We are moving towards a stage where digital solutions will largely automate data collection, making it as time neutral as possible and assisting the psychologist in not only collecting and analysing but also responding to the client's data.

We have explored some wonderful digital tools, but any digital tool, no matter how good, will face barriers to adoption unless it is carefully integrated into the psychologist's workflow. This is currently a challenge for those who want to adopt the best technology in the outcome measurement space. Great tools for outcome measurement do not offer general practice management software solutions, while great practice management software systems poorly integrate outcome measurement. Inevitably, the best of both areas will merge into one integrated software system with a human-centred design and workflow integration at its core. Surprisingly, this has not been achieved yet. Imagine how much we can do in the Australian market with an integration of a major digital measurement tool, such as NovoPsych, with a major practice management software system like Halaxy.

With so much investment and development in this area, potentially, the next phase will be a consolidation of products into a merged package that has the whole user experience at its core. Like all digital technologies for consumers, outcome measurement programs must be sympathetic to the experience of the consumer – in this case, the psychologist. Systems that require psychologists to take additional steps to input information will prove unpopular, as will those that require us to shift in and out of different applications. They must also integrate with existing client data. Tools that help remove even small inefficiencies in our daily tasks will be welcomed.

More and more integrated platforms are being used and developed internationally. SonderMind, which we met in Chapter 4, is one such example. Its system is based on MBC principles, which drive the refinement of its client-psychologist matching algorithm. SonderMind educates clients about the clinical questionnaire and the importance of completing it each session to track progress and adjust the treatment plan. The data are then fed into the

algorithm to create ongoing refinement. The SonderMind system also provides real-time feedback about client progress to the psychologist via a performance dashboard. Over time, it provides more referrals for presentations where the clients with similar presentations are progressing well.

A company in the US called Lyssn is taking data collection to provide feedback to the psychologist even further. Lyssn's software captures an audio recording of the client's session and analyses it to generate helpful and actionable feedback for the psychologist based on 54 clinically and externally validated measures of fidelity. The feedback, for example, can provide an indicator of the level of empathy the psychologist showed in the session in comparison with peers. It also provides a transcript of the session and utilises AI to create a summary clinical note. The psychologist can then use the data to monitor outcomes and continuously improve quality and engagement in real time.

Lyssn was originally designed to train university students. Imagine this in our training programs, with our students receiving evidence-based feedback in real time as they practise their counselling skills! They could receive quick and accurate feedback about a session comparable to that from an expert human rater but in a fraction of the time and at a fraction of the cost. Lyssn has since expanded into training or guiding practising psychologists, but where does Lyssn's feedback come from? To train the AI model initially, a few hundred transcripts were annotated by human psychologists to highlight the roles therapists' and clients' words played at particular points in the sessions. Then, the model was trained on what is believed to be the largest training set of clinical human services and coaching data in the world, including analyses of almost two million sessions/calls, 46 million minutes of interactions and over 4.3 billion words from diverse racial backgrounds, ethnicities, ages, incomes and accents from across the US.

Lyssn is currently only offering its services to psychologists in the US and UK, but this is likely to expand to additional countries. Lyssn and companies developing similar technologies are well placed to play a major role in supporting private psychology practices and training institutions in the future. Given the movement towards VBC and MBC in the broader health field, there will be increasing pressure on training institutions to ensure students are training from the beginning of their applied experience in MBC using this type of technology.

Deliberate practice

The technology Lyssn is developing will also support the movement towards greater use of deliberate practice. If you have objective feedback that your sessions are lacking in empathetic understanding, for example, you can use deliberate practice to improve your performance. ‘Empathetic Understanding’ is a fabulous podcast that shows how deliberate practice can improve the fundamental skills of a psychologist. You can try listening to it during your commute to work one morning and see how it influences your awareness of reflecting back to the client a statement of their underlying internal experience during your first session of the day. We have found it to be a useful training activity for empathetic understanding.

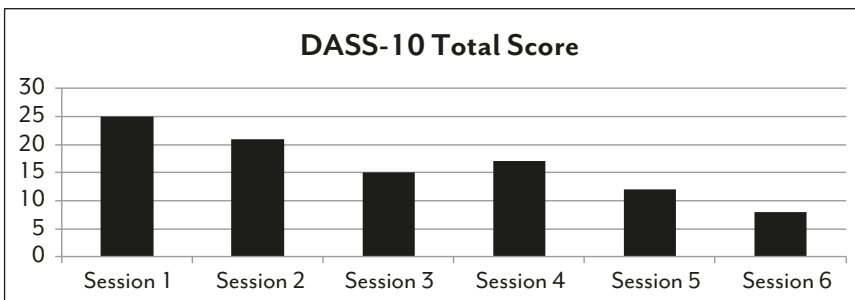
Recommendation #11:

‘Empathetic Understanding’ podcast

Listen to season one, episode one of the Learn Psychotherapy podcast, titled ‘Empathetic Understanding’: <https://open.spotify.com/episode/2mliuviZBtouZZTCi9hSSu?si=quoO8IXATneyiLsdUINVEw>.

Referrer letters

You can also use outcome data to improve the quality of your correspondence with referrers. Letters to referrers are by far the most important marketing tool for you as a private practice psychologist. You can set yourself apart as a psychologist who routinely uses objective measures to monitor the progress of the treatment you provide. Can you include a graph of the data from your outcome measures collected during your sessions that can be understood at a glance? In our experience, referrers love receiving graphs they can discuss with their clients as they review their progress. It does not have to be complicated or time consuming, and you can make it as simple as possible. In DASS-21, for instance, it can be difficult to communicate the three axes clearly when you have taken measures over a number of sessions. You should also assume that by the time the referrer is reading the graph, the colours would have been removed, and it is in black and white. Below is an example of a simple Microsoft Excel-generated graph of outcome measures.



Recommendation #12: Outcome measure graph

Work out a strategy that will allow you to include some form of outcome measure graph in your referrer letters.

Cancellations

Once you regularly collect outcome data, you can expect to become more curious about your cancellations. Ask yourself the following questions:

- Have you seen many cancellations in your diary in recent months?
- Can you speculate why?
- What do those cancelling clients' outcomes measures look like?
- Do you notice anything that can help predict who is at risk of cancelling or dropping out?
- Can you ask those clients why they are cancelling and what you can do to avoid those cancellations?
- What can you adjust to reduce cancellations, given that we know clients who cancel several times are more likely to drop out entirely?
- Can you provide greater value to your clients?
- Can you follow up between sessions via text with select clients identified as at risk of dropout to check how they are getting along with their homework tasks?
- Can you create a structure for regularly monitoring and, if you deem it necessary and appropriate, following up with your current clients who do not have a booking?

With so much demand for our services and few gaps to fill, it can be hard to follow up with our current clients after they cancel. Here is an sample of an Excel spreadsheet to track your clients and remain aware of those without a booking.

← client tracker - Read-only

	A	B	C
1			
2	APPOINTMENT BOOKED	NO APPOINTMENT BOOKED	COMMENT
3			
4	client name	client name	await contact
5	client name	client name	await mum's contact
6	client name	client name	invite to rebook 24/2
7	client name	client name	invite to rebook 26/2
8	client name	client name	invite to book 12 march as discussed
9	client name	client name	invite to rebook in mid March as discussed
10			

And here is a recipe for how to use this spreadsheet:

- Column A has the names of clients with appointments booked, listed in order of the dates the appointments are scheduled.
- Column B contains the names of the clients who currently do not have appointments booked.
- Column C has a comment for each name in column B.
- Column B is the most important here, as it lists the clients that you might lose track of, the clients who cancelled their scheduled appointments and did not rebook, the clients for whom you received review letters but have not yet scheduled appointments and the clients who need review letters or closing letters that have not been sent out yet.

Update your spreadsheet once a week. Maintaining a system like this can be a little bit time consuming, but it is an error-proof way of diligently overseeing a case load and having a clear view of your clients without appointments.

Key points

- ⊙ VBC will become a guiding principle in the Australian mental health system and affect funding decisions.
- ⊙ VBC aims to maximise the value delivered by healthcare services by focusing on outcomes rather than procedures, and it is starting to be applied in mental health settings.
- ⊙ Platforms such as NovoPsych, MyOutcomes, OpenFIT, Q-global and Wellify allow mental health professionals to track treatment outcomes efficiently, thus making ROM and FIT more accessible and practical.
- ⊙ Utilise NovoPsych's free trial to experience it and consider whether it can help you and your clients.
- ⊙ Listen to season one, episode one of the Learn Psychotherapy podcast, titled 'Empathetic Understanding'.
- ⊙ Work out a strategy that will allow you to include some form of outcome measure graph in your referrer letters.
- ⊙ A basic Excel spreadsheet can assist you in monitoring your client load and particularly your clients without current bookings.

● CHAPTER 9 ●

Wearable health technology

Many psychologists use a wearable device to measure sleep quality, stress levels and activity and yet persist with asking a client to verbally self-report on those aspects. If ever there was an area where our clients are leading us into the future, it is in wearable health technology. Just look at your clients' wrists. The watches on those wrists are making a mockery of some of our processes for collecting mental health data.

Interested in your client's sleep quality? You can ask them how they are sleeping. When do they get to sleep? When do they wake up? How good is the quality of that sleep? What we are really asking is what is their *perception* of their sleep. We are all aware of the inaccuracy of self-reporting, which we know is even less reliable retrospectively. Clients have only a vague idea of their own sleep patterns, and they are often enlightened by their watches' sleep data, almost as enlightened as psychologists are when we gain access to client data.

Michael was one of those clients who make psychologists go, 'Wow, I have a cool job'. Michael was a great guy whom even the reception staff loved. He always had a funny comment and a nice compliment to make them feel good. However, there were two problems. When the therapy door closed and Michael started talking, it was evident he was in a lot of psychological distress. Michael was hurting. The routine outcome measures collected showed he was receiving a pretty ordinary psychology service, he was going backwards, and CBT was no match for his demons.

Amid the countless moments of eye contact and downward glances, the psychologist noticed Michael's watch. It was a shiny new version of the watch the psychologist had worn for years every time he went for a run. He asked about Michael's new watch. It turned out that Michael never looked at the data, but what a treasure trove the watch contained! The watch revealed the train wreck that was his health data from the past two years: erratic activity (steps), erratic sleep and a 'body battery' that was mostly drained but occasionally very full for days on end. Michael's sessions usually started with a verbal account of how he had been since the last session, and he would invariably say things were up and down, with little detail, insight or mapping. However, with these data, the psychologist did not have to ask, probe or delve; vast, accurate data were available at a glance. They supplemented the start of each session by objectively showing how Michael had been since the last session. They also acted as a barometer for improvement.

Using wearable device data to promote mental health

Michael's case shows that while we psychologists have well-honed skills in analysing and collecting information, which can be of tremendous value to our clients, we are missing an opportunity to utilise the data contained in wearable devices. Wearable devices, such as Garmin, Apple and Fitbit watches, now provide more than just data on a range of physical health variables. They have evolved to include variables directly relevant to mental well-being. Currently, you have to ask your client for their wearable device data. In the future, with their consent, the data will be automatically uploaded to your practice software, analysed and compared with a matched population. You will not have to ask the client about their sleep quality, activity level and routine, weight change, stress level and a multitude of other variables. The data will be uploaded

to the client's file automatically, delivered to you and the client in user-friendly graphs and reports to review, and downloaded with interpretive summaries. Hence, the psychologists' job of monitoring progress towards established goals will be partially automated.

In the coming years, advances in wearables, implantables and nanoscale devices that can monitor what is going on inside us will make today's wearables look very primitive. These devices will provide individuals and their healthcare providers with a rich stream of health information, which will lead to better clinical outcomes and save the health system tremendous amounts of money.

Imagine when AI develops an understanding of personal baseline physiological norms and can detect minor abnormalities before the client and psychologist are even consciously aware of any issues. At present, we might debate about which variables the technology would need to track to monitor a person's mental health status. This will become irrelevant as AI technology advances our understanding far beyond our current capabilities and unearths correlations between new and highly predictive variables, including physiological health, lifestyle habits and environmental influences, which will enlighten the most in-tune humans and rapidly advance the scientific literature in this area.

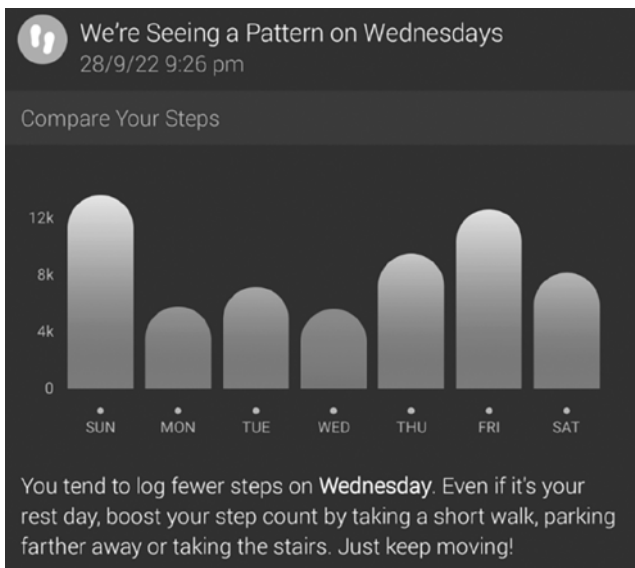
Examples of wearable devices and apps

Device data have a powerful appeal, as they allow for continuous, unobtrusive and ecologically valid data collection. Using data to avoid vague estimates and perceptions is energising for both the client and the psychologist. If you are keen to incorporate wearable data into your clinical practice, you can start by collecting and analysing your own data.

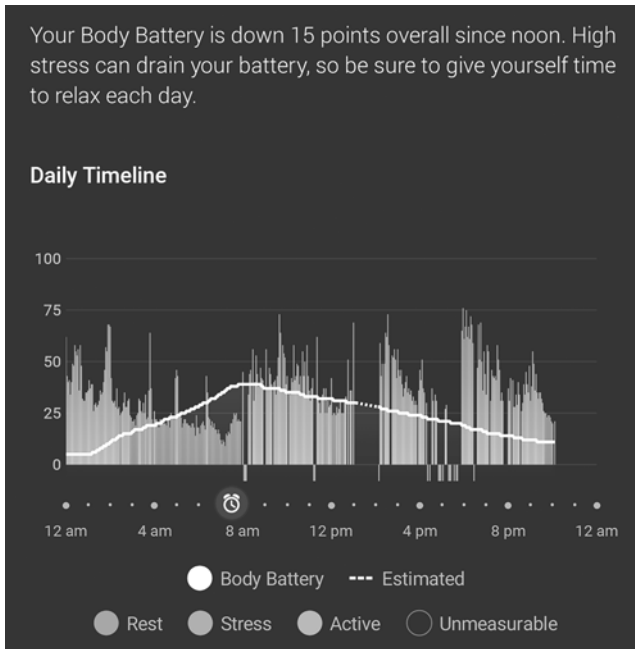
Garmin

The Garmin Forerunner 945, paired with the Garmin Index Smart Scale, provides data on over 40 health status variables and includes measures such as energy and stress levels. The Forerunner 945 is a premium product, so it can be pricey, but almost any of the many devices on the market can make for a good start.

Below is an example of how information is provided to the user via the Garmin Connect app.



This user is being made aware that they are the least active on Wednesdays. As you can see, they are less active on Mondays, Tuesdays and Wednesdays. The data belong to a psychologist who does most of their consulting on Mondays, Tuesdays and Wednesdays, so this makes sense.



The user also gains insights into their stress levels, encouraging them to think about how tired they are at the start of the day and the activities that drain them. Imagine a client you are seeing for anger management issues coming home at the end of a stressful day at work with a body battery of 15. If they have a propensity to express anger, the likelihood of their expressing anger when they come home exhausted is elevated. Do they know they are exhausted, or do they think somebody has wronged them?

The next page shows feedback on sleep for the previous week, including the user's time to bed, the number of times they woke up through the night and advice about the importance of consistent sleep patterns. The user is prompted to look at their data via a weekly email wellness report, which provides graphical information for the past week on resting heart rate, body battery (energy level), stress level, sleep and respiration rate.



Apple Watch

Another very popular and versatile smartwatch is the Apple Watch. It is so popular that Apple sells more smartwatches each quarter than the entire Swiss watch industry does in a year. The Apple Watch is designed for a broad consumer base, including those interested in health and fitness. Its features include activity tracking, heart rate monitoring and ECG capabilities, which are appealing to users wanting to monitor and improve their physical well-being. It integrates with iPhones and various apps, providing notifications and music control. With customisable watch faces and bands, it caters to a range of styles. The Apple Watch aims to balance functionality with style, making it a popular product.

However, not all wearables are wristwatches.

Muse headband

Muse has created a brain-sensing headband that helps the user get the most out of their meditation practice by giving real-time

biofeedback about what is going on in their mind. It can assist the user in training their brain to slow down. The user puts the Muse headset on, completes some breathing exercises and receives feedback on how focused and calm they are. If their mind is too active, the Muse can help them clear their thoughts. In essence, Muse is a training aid for meditation sessions, providing immediate feedback about brain activity in real time.

Our understanding of the clinical use of wearable devices is rapidly developing. For example, we now know that depression symptoms can be estimated by parameters collected objectively in real time by wearable devices. The opportunity to use technology to develop low-cost, novel diagnostic and therapeutic approaches in the coming years is immense. Imagine the market for a low-cost coaching service where a behavioural health coach uses someone's device data to personalise treatment for their depression or anxiety. Enter Feel Therapeutics and MyFeel.

Feel Therapeutics and MyFeel

Feel Therapeutics is a company that uses physiological data, algorithms and mostly automated interventions to help clients improve their mental well-being. Its AI algorithms analyse client data and detect one of four emotional states: joy (positive, high energy), contentedness (positive, lower energy), distress (negative, high energy) and sadness (negative, lower energy). Its Feel program, a wristband and phone app, tracks the user's emotional states, offers regular mental and physical exercises and connects them to a 'therapist' – a mental health expert trained in CBT – via video for 15 minutes once a week. This digital coaching is one element of the company's FDA-approved digital therapeutic for adults in the US who are experiencing major depressive disorder or generalised anxiety disorder, Feel DTx, which also includes a 16-week digital CBT program.

MyFeel is also a real-world application of a personalised digital therapeutic program based on client data. We are likely to see much more of this in the coming years, as it will be driven by some consumers' desire for an alternative approach and its significantly lower costs over traditional one-on-one consultations with a mental healthcare provider. The biggest companies in the wearables area have realised this is where the application of this technology is moving, with Amazon and Fitbit adding psychological metrics to their smartwatches. However, unlike Feel, Amazon and Fitbit are not promising their users clinical results at present. Instead, such companies are marketing their products as 'wellness' and complementary to individual therapy. These products purport to promote a healthy lifestyle or help manage, not treat, a condition.

Wearable devices are not a threat to psychologists but are a huge opportunity to add value to what we currently offer our clients. Products such as Feel DTx will, in time, arrive on Australian shores to offer consumers greater choice about how their mental healthcare is managed. Nonetheless, it is not just in mental healthcare where digital technology is changing the style of care provided. Indeed, this trend in mental health is largely inspired by innovations in physical healthcare being applied to mental healthcare. One such example of an innovative use of technology to advance physical healthcare is Story Health.

Story Health

Story Health is an American company blending healthcare and technology to reimagine care for patients with heart failure. Its platform provides remote monitoring of blood pressure and heart rate and integrates with electronic health record systems. The company's AI generates insights from the patient's data to help their practitioner find the ideal treatment. Story Health also has health coaches who assist clients in meeting their non-clinical needs, such

as transportation issues and medication costs. It is one thing for a client to be referred to a certain provider or instructed to take a particular medication, but if they cannot travel to the provider or afford the medication, the recommendations do not help the patient. Hence, the health coaches assist the patient in navigating the health system to achieve their desired outcome.

Story Health's business model makes sense in the US healthcare system, where insurance companies are prepared to pay for this service to reduce the overall cost of providing care to the patient. While a similar company in Australia is unlikely, how beneficial would such a service be to many clients trying to navigate the Australian mental healthcare system? Imagine this sort of technology for our depressed clients.

Ginger

Ginger provides behavioural health coaches as an element of a package of services in its emotional support app. Ginger members can access self-guided mental healthcare resources, such as immediate text-based behavioural health coaching and video psychology and psychiatry. Ginger is marketed to potential members as a convenient, confidential and affordable mental health service and to employers as an opportunity to provide all their employees with high-quality, low-cost, on-demand mental healthcare. Again, while it is unlikely in Australia, Ginger illustrates how technology can be used to provide innovative mental healthcare services.

Data coaching

A term we are going to hear more of in the coming years is data coaching, which is a vital element of a true stepped care model. Data coaching may provide an entry to therapy for those who are not ready for face-to-face engagement with a mental health service provider. It may also reduce the demand for mental health services,

with clients using data coaching and only stepping up to one-on-one care when and if required. Critics of data coaching say this is not without risk unless there is a mechanism to monitor and educate the client about when to seek more intensive mental health treatment. Therefore, data coaching services, which are not mental health services, should not represent themselves as providing mental health treatment, and systems should be designed to ensure individuals have all the information they need to make informed decisions about their mental healthcare.

Data coaching will not be driven by mental health services trying to offer low-quality services. It will be driven by consumer demand for low-cost and low-intensity support to improve physical and mental well-being without engaging with traditional psychology treatment. There are examples, though, where the line between wellness support and a mental health service becomes blurred.

Appa Health

Created by psychologists and other scientists affiliated with Harvard, Johns Hopkins and Yale Universities, Appa Health provides mentorship and digital content for those aged 12–18 years over a 12-week program that teaches skills to build resilience, confidence and well-being. Appa Health promotes its service as an opportunity to feel supported and understood through connecting with relatable near-peer mentors who understand what users are going through. The program provides a curriculum that teaches evidence-based mental health skills through bite-sized video content.

Utilising client health data: a critical capability

Utilising client health data will soon become a critical capability for all psychologists. We need to embrace our role as data coaches, as we are already well trained in data analysis. Therefore, be curious

about the data your clients are capturing and how they can use those data. Encourage your clients to share their data with you, as client data available to analyse outside of sessions will improve the quality of treatment provided enormously and will revolutionise post-treatment monitoring and relapse prevention.

By embracing client data, we can improve the quality of goal setting and monitoring. Doing so can assist in taking vague concepts and converting them into solid numbers, and what is measurable for clients can be used in real time to inspire and motivate them to improve. Using the data from a client's wearable devices can be a breath of fresh air in clinical practice. For those clients sharing their data, a standard session looks like this:

- The client emails you their data 24–48 hours prior to the session.
- You review their data before the session, focusing on their goals from the previous session.
- During the next session, you review the data insights and incorporate the lessons learnt when planning goals for the coming period.

Goal planning can be much more precise using these data. For example, you can encourage a client to walk an average of 8,800 steps per day over the next two weeks if you know that they averaged 8,500 steps per day over the past month. If you want a rich, personalised picture of behaviour outside of sessions, invite your clients to share their data. Of course, this approach is not for all clients, but for those who are keen to embrace it and if the data apply to their issues and goals, it is well worth a try. In our experience, clients are happy to share their data and see it as an opportunity to help us help them. Those who are mindful of the money they are paying to access a psychologist also view this as a way of increasing the value for money they receive. Unsurprisingly, too, the client's willingness to maximise the use of their wearable technology is likely to be

heavily influenced by the psychologist's enthusiasm for using the technology.

Sharing can be as simple as the client exporting a copy of their last few monthly wearable device reports. Very quickly, you can look over their data and compare them to the previous periods to get a sense of the client's activity level, sleep performance and many other variables. The data can provide a different perspective on your client, even if you think you know them well.

There is a great deal of promise for future biofeedback interventions that harness the power of wearables and adopt a user-centred approach to help people regulate their emotions in a way that feels engaging, personal and meaningful. With these current technological advances, we can track, monitor and regulate various aspects of our physiological and behavioural activation, ranging from heart rate and sleep patterns to the number of steps taken and calories burned. The popularity of these devices and apps is increasing, and they are becoming simple to integrate into our daily lives, providing us with the means to take a more active role in the management of our health and well-being.

Recommendation #13: Wearable device data

Identify one depressed client who is willing to share their wearable device data and see whether the data can benefit your work with the client.

The usefulness of data sharing for assessment and treatment is immense, and the potential benefits for monitoring and relapse prevention are also extremely exciting. Imagine a future where technology that uses machine learning and natural language processing is deployed to analyse your clients' language, physical gestures and social signals to identify cues for human distress. Combine this with

information on your clients' sleeping, eating and other behaviours to provide a complete picture of their mental well-being. This will be monitoring and assessment at a standard we have never seen before and will allow you to intervene promptly, as required, both during the treatment phases and as part of relapse prevention.

Key points

- ⊙ As psychologists, we are increasingly using wearable devices to measure our own health metrics, but we can also leverage these devices to gather accurate and objective data from our clients. These data can be crucial in understanding their behaviours, sleep patterns and stress levels, leading to more informed and personalised treatment.
- ⊙ Michael's story illustrates the potential of using wearable device data to gain insights into clients' health and progress. The psychologist received valuable information from Michael's wearable device, which provided a comprehensive assessment of his mental health.
- ⊙ Wearable devices are evolving to include mental health-related variables, and soon, client data will be automatically uploaded and analysed with user-friendly graphs and reports. Embracing this technology will improve goal setting, monitoring and treatment quality.
- ⊙ Wearable devices are not limited to wristwatches; they also include brain-sensing headbands for meditation, such as Muse.
- ⊙ The rise of data coaching and the integration of wearable data will transform mental healthcare by offering low-cost, low-intensity support, improving mental well-being and revolutionising post-treatment monitoring and relapse prevention.
- ⊙ Identify one depressed client who is willing to share their wearable device data and see whether the data can benefit your work with the client.



PART 3

*Tools for running
your practice*

● CHAPTER 10 ●

The digital office

The fully digital (paperless) office is a decades-old idea that has never quite materialised because the technology to facilitate going fully digital was not more efficient than a hybrid office that is a combination of digital and paper-based. In recent years, however, the technology to allow psychology practices to be fully digital has arrived.

Paperless office is an unfortunate term. Why would we want to remove paper from the office? Those who are driven to eliminate paper are not looking to be paperless; they are looking for the benefits of digital, which include the following:

- **Improved accessibility:** digitalising your practice will allow you to access information from anywhere. It will not matter where you are working, whether it is a desktop at work, a tablet at home or a laptop in a hotel room on the other side of the world. The COVID-19 pandemic caused many of us to move further towards improved accessibility, and it will be interesting to see whether progress stalls in the coming years or whether psychologists will continue to advance their processes. For those who have achieved full digital accessibility, the ability to move freely between locations without consequences or impediments is very liberating.
- **Better client experiences:** digitalisation provides many opportunities to improve your clients' interactions with you and your practice, such as intake forms, text reminders,

online booking capability, digital outcome measures, electronic handouts and faster delivery of correspondence to referrers. These services will make interacting with your practice easier for your clients and enhance your brand reputation.

- **Increased productivity:** those who are reluctant to digitalise undervalue the potential to increase productivity. People tend to overemphasise the short-term impact of going digital and undervalue the long-term implications. Digitalisation can help to optimise workflows and automate routine tasks, such as text message reminders and invoicing. It can reduce manual labour costs and improve communication. However, you can only appreciate the improvements that have been made after you have digitalised. For example, the vast majority of us are now using online billing via practice management software because of the cost of not doing so. Imagine still filling out Medicare slips and *posting* them for processing! What the norm was a decade ago is no longer acceptable. Which non-digital process you currently use will be unacceptable a decade from now? Maybe handwritten note-taking? Paper and pen homework tasks?
- **Cost savings:** digitalisation can help save costs on paper, printing, storage and file retrieval. However, the savings from paper and printing may be negligible when you factor in the need to invest in technology to go digital. The biggest potential savings come in the areas of storage and file retrieval. Your filing room can become another consulting room, and you will not need to physically search for a file when you can access it digitally from anywhere in the world. Moreover, you can provide a copy in response to a request almost instantly. The time and cost savings of instant access to your files will build over time.

- **Environmental/climate change benefits:** healthcare represents seven per cent of carbon emissions in Australia. Digitalisation can help to reduce our environmental footprint.

So you have decided to make greater use of digital technology and go paper-free. Where should you start, and how quickly should you do this? The speed and degree to which you go digital is up to you, but we suggest thinking of it as a process that is best done in stages. The first step is to look for opportunities that are important to you.

- What opportunities exist to provide a better service to your clients?
- What opportunities exist to eliminate a task that you or your staff hate doing?
- What opportunities exist to save time or money that can be better spent on something else?

Pick one task to digitalise, ideally something fairly small in terms of timeframe to complete, such as providing clients with an online booking option. Work on that and then move on to the next task. Starting small and getting some wins on the board early is important, particularly if you have staff or colleagues who might need to be convinced that change (i.e. digitalising) is a good idea.

Increasing your use of digital technology should be viewed as a journey, where your destination may be a fully digital office or a hybrid office. Incorporate digital technologies that work for you and replace time-consuming and avoided tasks with digital versions. For those who are committed to going entirely digital, this goal is now very achievable with a little time and effort. Those who succeed in eliminating paper will enjoy the benefits mentioned earlier to the fullest.

What is your practice's digital maturity?

The link below is to a wonderful Australian Government tool that allows you to assess the digital readiness of your business and identify your strengths and weaknesses. It is a quick way to compare yourself with similar businesses in Australia and think about where the opportunities are for you to improve your business's digital maturity. It takes about ten minutes to complete and provides information on seven pillars of digital transformation:

- How you interact with your customers
- Operations, data and analytics
- Technology, such as hardware, software, devices and platforms
- Risk, privacy and cybersecurity
- Digital capability
- Culture and digital strategy
- Innovation.

Once you have answered the questions, you will have a greater awareness of where you are on your digital journey and can identify areas for improvement. Cybersecurity is a critical element to evaluate, for example. Have you utilised technology that has inadvertently negatively impacted your cybersecurity rating? If you decide to implement digital changes, how can you do so with minimal impact on your cybersecurity rating?

Recommendation #14: Digital maturity tool

Use the business digital maturity tool to learn your strengths and weaknesses: <https://business.gov.au/online/what-is-your-business-digital-maturity>.

The hybrid practice

In 2020, the COVID-19 pandemic moved private psychology practice in Australia from face to face to telehealth almost overnight. Initially, telehealth was a necessity. Then, in 2021 and early 2022, due to the overwhelming demand for services, psychologists had the power to remain telehealth-only, regardless of the client's needs and preferences. But in the post-pandemic era of mid-2022 and beyond, there has been a drastic move away from telehealth-only models to hybrid models, where clients' needs and preferences are central. Thus, psychologists need to be set up to deliver such services by embarking on a blended model of care that combines face-to-face and telehealth services throughout a typical workday. This blended model is here to stay.

What is automation?

A digital office does not mean an automated office. However, a digital office is a necessary *precondition* for developing an automated office. Automation can be applied in a psychology practice in several ways.

Automating the new client intake process

Most practice management software programs allow you to develop a digital client intake process. Many practices have already embraced this technology to save countless data entry hours and benefit from its efficiency. A digital client intake process can free up administration staff from the repetitive task of explaining the same generic information to every client, as a well-designed client intake form can explain your processes and outline your relevant policies, such as for fees and cancellations.

Client information can be automatically uploaded to your practice management software when the client completes the

intake form. All the information you require, which was previously collected verbally or manually, such as date of birth, address, phone number, Medicare card details and credit card details, can be included. This can also include signed consents to your fee and cancellation policies. Additional details, such as the client's preference for a male or female psychologist, their preferred time or day for appointments and whether they prefer face-to-face or telehealth appointments, can be noted.

You can also introduce client preference questions, such as the Cooper-Norcross Inventory of Preferences. For example, does the client have a preference for being assigned homework tasks, learning new skills or having their beliefs challenged? There is also the opportunity for clients to submit any additional information that they wish, which can be helpful if you are tasked with matching the client with the best-suited psychologist for them.

While digital intake processes can improve efficiency, they still require data entry by the client, which can potentially lead to frustration. Therefore, any digital intake process must consider the client's experience of the process. Practices with well-designed intake processes go beyond trying not to frustrate the client to ensuring the prospective client is impressed by the efficiency and smoothness of the practice's intake process.

A word of caution: the information provided must be respected. If you ask the client about their preference for homework tasks, and the client answers that they do not want any, it would be unwise to proceed with homework tasks unless it has been acknowledged that you are aware of their preference and have outlined a strong rationale for why these tasks are critical in their situation.

Digital intake processes should not be 'set and forget'. It is important to continue to listen to client feedback and to survey your clients about their experiences to continue to refine your process. It is also helpful to review processes with your administration staff.

Examine any element that takes up too much of their time. For example, if clients are regularly asking the same questions, such as about likely wait times or specific services, then you should look into making this information clearer and more accessible.

Recommendation #15: Digital intake process

If you are responsible for the client intake process at your practice, set a goal to create a digital intake process within three months from today.

Automating invoicing

If you have already automated your invoicing, that is outstanding! Manual invoicing is time-consuming and repetitive work, and it is also costly if you miss an invoice. Most practice management software will allow you to automate invoicing, and once it is done, it is done forever. Automation challenges you to ensure that all the required data are included in your practice management software. You must also eliminate or at least minimise the amount of information kept in separate spreadsheets, such as third-party biller information. Once you have all the required information in your practice management software, you can set these invoices to be automatically sent at a predetermined point, such as after the appointment has been completed, at the end of the day or the day after the appointment.

In our practice, automating invoicing was first resisted. We heard all the reasons it could not possibly be done and why manual processes needed to be maintained. But it could be done. Indeed, modern practice management systems make it easy to enable automated invoicing. We just had to communicate with our staff well and work through each of their concerns to ensure the process was

efficient and completed accurately, as automation is only as good as the accuracy of the setup. We realised that automation can create a fear of losing quality control. It is also likely to raise fears among the administration staff members about not being needed, so they had to be reassured. They had to work at the top of their scope of practice to actively participate in automating tedious, repetitive tasks and adding value in other areas that cannot be automated.

Automating invoices will clearly save your staff time, but when your business is starting out and your invoicing is minimal, you might be inclined to not bother with automation. However, you should look into automating early, particularly if you have aspirations to grow your business. Taking the time to automate your invoices now is a wise investment in the future of your practice. Automation will enhance your ability to scale.

Initial time commitment for going digital

Like changing any process within your practice, committing to become a digital practice takes persistence and determination, as it will be uncomfortable in the short term. First, you will need to invest time in identifying the areas that are your priorities to change. Then, you must find the most suitable and affordable solution for your practice, usually by selecting software to replace manual processes. After that, you have to implement the software, which can be time consuming.

Going digital requires a conscious decision to do so and clear steps to achieve your goal. You should move towards the greater use of digital technology in stages and at a pace that suits you. While the pain of change can be hard, it is also liberating to go digital. Here are our five recommended initial steps towards digitalisation:

No.	Step
1	Start creating and uploading electronic notes for your current consultations.
2	Scan and upload your old files.
3	Disconnect your consulting room printer and walk to reception to get your printouts.
4	Reflect on what you have printed out and consider whether you want to make further changes.
5	Remove your printer from your office.

You should also keep the following considerations in mind:

Client handouts	Will you use digital handouts or continue with paper-based handouts? Will a combination of both work, based on client preference?
Letters and reports	Do you need to print and manually sign letters and reports? Can you create an electronic signature and insert it into documents, avoiding the need to print, sign and scan? If you are still printing, signing and scanning letters and reports, finding a digital solution can improve your efficiency.

Digitalising existing paperwork

Having gone through digitalising an entire room full of files, we suggest that before you digitalise your existing paper files, take the time to think through the following questions:

- What is your goal?
- What are the implications of your goal in terms of time, effort and cost?
- How long will it take you to scan 2,000 files? Roughly how many pages is that, and how many pages per minute can your scanner manage?
- Is it worthwhile to invest in a faster scanner before you start this process?
- How would you do this task through to completion in the most efficient manner?
- Do you really want to digitalise your old files, or is there somewhere you can store them securely and cheaply until they can be destroyed?
- Why do you want to digitalise your old files? Perhaps you want to use your filing room as another consulting room, which might make digitalising your old files a profitable exercise. Or maybe you like the idea of being able to digitally search and retrieve old files.
- Is it an option to digitalise only your current and future files?
- Are you going to outsource the job to another business? This can be a quick and easy solution but an expensive one. Alternatively, you can do it in-house with your reception staff when they have downtime.

This exercise will likely increase your awareness of the urgency of transitioning your current file practices to digital. Every day of staying paper-based increases the amount of paper and ink being

consumed and, critically, the sheer volume of paper awaiting either long-term storage or digitalisation in the future.

Take stock of your current practices

If you are looking for opportunities to reduce paper usage and switch to digital alternatives, one quick way to identify them is to look inside your shredding bin.

- Who uses paper in your practice?
- What do they use paper for?
- Have some people already adopted digital processes? Do some people need guidance to do the same?
- How much paper is being used for non-clinical purposes, such as administration, as opposed to clinical work?
- What do your reception and administration team use paper for?
- Are your reception and administration team setting a good example?

Private practice management software

It is beyond the scope of this book to comprehensively review all the prominent private practice management software options available to psychologists. The Australian Psychological Society has produced a document called ‘Practice Management Software for Psychologists in Private Practice’, which provides valuable guidance on the issues to consider when making your choice. Below is a list of some of the major private practice management software solutions used by Australian psychologists.

Software	Website
Clinko	https://www.cliniko.com/
Coreplus	https://www.coreplus.com.au/
ePractice	https://www.e-practice.com.au/
Halaxy	https://www.halaxy.com/
Medical Director	https://www.medicaldirector.com/
Nookal	https://www.nookal.com/au
Power Diary	https://www.powerdiary.com/au/
PracSuite	https://www.pracsuite.com/

Electronic note-taking devices

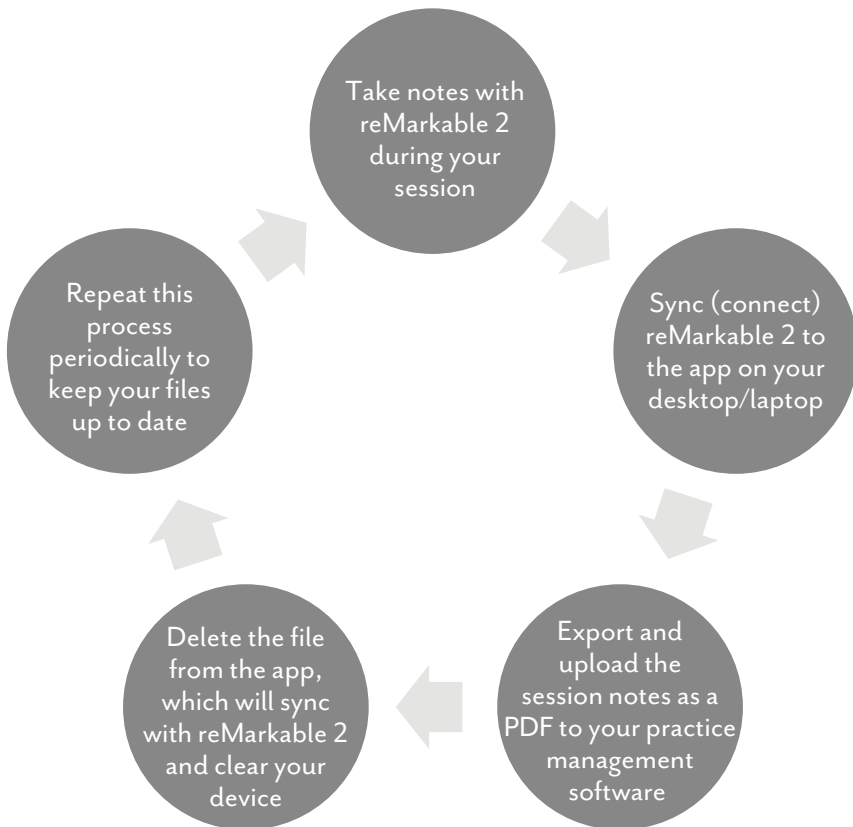
When you decide to digitalise your business, you should also consider switching to a reliable and efficient electronic note-taking device if you have not already. Let us take a look at three of the most popular options on the market.

reMarkable 2

The reMarkable 2 is a tablet device that is designed primarily for note-taking. Mimicking the feel of paper and pen, it is very well suited to the needs of a private practice psychologist. reMarkable 2 makes it possible to remove the printer from your consulting room, as it dramatically reduces the need to print and scan. It features a high-resolution display, which provides a paper-like writing experience that is more natural and less straining on the eyes than a typical LCD screen. The reMarkable 2 has a slim design and is lightweight, so it is easy to carry around with you. It comes with a pressure-sensitive stylus pen that allows you to handwrite with precision.

The device includes software that enables you to organise your notes, and it also supports cloud integration so you can access your work from multiple devices. You can convert your hand-written notes into digital text almost instantly by hitting two buttons (if your handwriting is neat enough for the conversion to work!), which can be exported in a range of file formats.

Here is an example of the use of reMarkable 2:



You can also upload PDFs from the app to the device, so documents such as consent forms and NDIS service agreements can be viewed and signed on the device, eliminating the need to print, sign and scan them. With its long battery life, a full overnight charge

will last over a week of regular use as a consultant psychologist. reMarkable 2 has no internet browsing capacity, so you cannot access your practice management software or diary from the device, but this can be seen as an advantage, as it eliminates the potential for distractions. If you need internet browsing capacity, you will be better served by a device such as a Microsoft Surface Pro or iPad.

Microsoft Surface Pro

The Microsoft Surface Pro is a popular choice among private practice psychologists who are looking for a device that runs on the Windows operating system. You can use it as a tablet or a laptop, thanks to its detachable keyboard cover. This versatility can be useful if you want a tablet for note-taking while in a consultation but also a laptop for writing reports. The Surface Pro comes with a high-resolution touch screen and a stylus pen, which allow for handwritten note-taking and diagram drawing when working with clients in a clinical setting. The Surface Pro is a lightweight and portable device that can be easily carried around, making it a great option if you work in multiple locations.

iPad

iPads are also a very popular option for private practice psychologists. With the help of various apps, an iPad can be used for note-taking, scheduling appointments, conducting assessments and even providing therapy sessions remotely. The Apple Pencil can be used to take handwritten notes or draw diagrams during sessions. Additionally, iPads are portable and lightweight, making them easy to bring to different locations or use during travel.

Goodnotes is a note-taking app that allows iPad users to take handwritten notes, annotate PDFs and organise digital documents. It offers a variety of features, such as handwriting recognition, shape detection and text search, and it supports the use of Apple

Pencil and other styluses for a more natural writing experience. An alternative to Goodnotes is Nebo 4.0, which can convert handwritten notes to text on the iPad.

Recommendation #16: reMarkable 2

If you do not currently use a digital device for note-taking in your sessions, consider buying a reMarkable 2.

The future of note-taking: automation

One of the biggest changes in psychology practice in the coming decade will be how we create session notes. Writing, typing and even speaking notes will become redundant, as psychologists will use AI to automate note-taking. AI will act like a fly on the wall, listening in and logging conversations to generate complete transcripts and summaries that will be automatically uploaded to client files. We will become note editors and set the parameters, and the AI technology will do the rest. Do we want a full transcript or a 200-word summary with a list of the session goals? AI will generate the notes, and our role as psychologists will be to check, approve and then complement them with diagnosis, formulation and treatment planning, which AI will also handle eventually.

AI-generated note-taking is an excellent example of what we should be looking to achieve from technology. It can take care of the mundane work that does not require the skills of a qualified psychologist and free us to spend more time doing the work that does require a qualified psychologist. AI-generated note-taking will be a significant advance in productivity. It can cut down the hours spent painstakingly documenting appointments, particularly first appointments, where there is generally a lot of information to record.

Obviously, AI-generated note-taking is of tremendous productivity-enhancing value to health professionals beyond psychologists. It will be hugely helpful across the whole healthcare sector and well beyond healthcare. We are already seeing the use of this technology in settings where confidentiality and privacy considerations are not so important. The healthcare sector is likely to play catch up to other industries in the uptake of AI-generated note-taking. Given the sensitive nature of psychology appointments, we believe psychologists will not be the leaders in this area. Such technology will become standard and accepted in non-health related professions, followed by the physical health professions. Then, psychologists and other mental health professionals will adopt this technology when it becomes common, accepted and even expected by consumers. There will be a time gap between technical capability and client acceptance in this area.

An example of an AI-generated note-taking service that is available now is Otter AI. It is a great alternative to manual transcription services, as it is faster and easier to access. Check it out here: <https://otter.ai>. Another example is Zoom's meeting summary feature. Also, Microsoft Teams has added ChatGPT to its premium tier, meaning it is now capable of automatically generating notes and distributing summaries to participants. Following a team meeting, the host receives automated meeting notes, recommended tasks and personalised highlights from the meeting. This is a real-world example of automation creating efficiency and has clear implications for the future of automation of note-taking for psychologists. Imagine your next online peer consultation group using this service to distribute notes to all the participants, which can then be uploaded to your professional development log.

AI-generated summaries are also likely to move many psychologists' standard practice towards offering clients a summary of their session to take away, which will be like a supercharged version of

encouraging clients to make notes in sessions or providing an audio recording of the session. This will be helpful when meeting with a client who has obvious memory and concentration issues or is highly distressed, and the psychologist is the only one taking notes during the session. It is also potentially valuable for some clients to be offered a written summary of their session or at least the goals set in the session.

No doubt, the thought of automatically generated notes or the client having a transcript or summary of the session will be scary to some of us. This level of transparency being brought to our work, which is so often conducted behind closed doors, with very little or no transparency, will be a significant shift. Thus, it is a wise mental exercise to assume that all your professional services are being recorded, given how easy it is for any client to use their phone to record a session without your knowledge. Challenge yourself to embrace this and utilise its benefits. In time, clients may expect such a written record. Watch out for this type of activity to become standard across a range of areas and for psychologists to move in this direction as a result of client expectations.

Backing up your data and cybersecurity

The downside of electronic files is the potential that they can be lost instantly. Remember that all electronic files need to be kept secure and backed up. You should have a structured system for regularly backing up all your valuable data, such as client files, emails, billing histories and text messages. Back up regularly, before it is too late!

Some simple steps you can take are:

- Choose which data to include in your backup to keep safe. They may be your most important files or the entire system. Given the speed with which backing up can be done and the negligible costs to purchase external hard drives to back up your data, it is easiest to just back up your whole system.

- Decide how to back up your data. You can use a cloud backup service, an external storage device or a combination of both.
- If you use an online client management system, check how often your data are automatically backed up and how to access these backups if required.
- Maintain a regular backup routine. It can be daily, weekly or monthly. When making this decision, decide how much data you would not mind losing. Would you be fine with losing a day's data, a week's data or a month's data?
- Ideally, you should set automatic backups. It will reduce the burden of manually creating them each time.
- Secure your backups in compliance with the Australian Privacy Principles, which require storage within Australia, encryption and password protection to secure information from misuse, interference and loss, and unauthorised access, modification or disclosure.
- Use multifactor authentication and strong passwords.
- Disconnect your backup when not in use.
- Check that your backup works! Testing that you can restore your data will give you peace of mind.

Recommendation #17: Backup procedure

If you do not currently have a written procedure for backing up your digital files, set a goal to create one within one week. Keep working on it until you can describe your procedure as excellent.

You should also seek appropriate advice to ensure your systems, networks and programs are adequately protected from digital attacks (i.e. cybersecurity). The digital maturity tool mentioned earlier (recommendation #14) will give you some guidance on the policies and procedures you currently have in place regarding risk,

privacy and cybersecurity. Cybersecurity is a complex area, and the large-scale data breaches reported in the media in recent years serve as a reminder that seeking advice and employing appropriate measures to guard against data breaches is an important consideration when you are in possession of sensitive health information. Is this the single biggest threat to your practice? Is your investment in guarding against this threat proportional to the risk?

When assessing your policies in this area, also remember to ensure you comply with the Australian Privacy Principles, which are the cornerstone of the privacy protection framework in the Privacy Act 1988. Yes, this is a very boring area for the tech-savvy psychologist to focus on, but you must be confident that you are doing everything you can to manage the risks well.

Email and text correspondence with clients

Direct email and text correspondence between the psychologist and the client can be an efficient and effective way to reinforce and refocus the client on the skills discussed in the session. Briefly checking in with your client between sessions can build rapport and increase their motivation to work towards the goals set. For Android users, Google Messages for Web is a useful tool that links your phone to your desktop computer and allows you to access and respond to text messages via your desktop screen. You can also use it to send telehealth links to your clients who prefer the link sent to their phone via text rather than email. Note that if you are going to interact with your clients via text, then you must have a strategy to upload text message interactions to your client files (see the following section) and consider privacy regulations.

Text correspondence with clients outside of sessions can help them stay focused on agreed goals. Inviting clients to text you when a goal is achieved can be an excellent way to create a bridge between sessions. Brief text messaging between sessions can improve

therapy adherence and the connection between your clients and you. It is also a way of showing your clients you are committed to the goals set in session.

COVID-19 drastically changed how some of us interact with our clients, and text communication has become a much more common form of communication. While not all psychologists would want to have this blurring of boundaries, a greater level of engagement between sessions can be energising, particularly for those clients who are engaged in planned behavioural experiments.

Client text communication: uploading to files

Your client's file should contain all the interactions you had with them, including text messages. Hence, backing up and saving text messages has become an important consideration in keeping a thorough record of contact. Many apps can assist you with this process. For Android users, there are free apps that will meet your needs, such as SMS Backup+ and SMS Backup & Restore. For iOS, popular paid options include FoneLab and iDrive.

Here is a procedure for an Android user to back up using the SMS Backup & Restore app:

- Install the SMS Backup & Restore app on your Android phone.
- Run the backup and click yes for weekly ongoing backups.
- Click on 'view most recent backup' and then on the backup of text messages (your calls will also be backed up).
- You will see each individual client you have had text communication with. Click on the client you want to export a copy of your communication with.
- At the top right, click on 'print conversation'.
- Click on 'PDF' and name the file and save it.
- Repeat for each client you want to export.
- Exit the app and go to your phone's files.

- Click on downloads.
- Click on the three dots at the top right and select all files.
- ‘Share all’ to email and send the PDFs to yourself.
- Drag each PDF from your email to your practice management software to upload. This step is much easier when done on a desktop/laptop than a phone.

Once you have securely uploaded the texts, consider deleting them from your phone. Otherwise, the next time you back up, another copy of those previously backed-up messages will be included. As you have instructed SMS Backup & Restore to do a weekly backup, you will get a notification when the app has completed backing up each week. This serves as a prompt to transfer your text messages to your client files. If the communication is short, a screenshot may be practical, but for a longer communication, then another PDF export is probably more practical.

Multiple-monitor setup

A barrier to reducing paper use is the desire to cross-reference documents while working on one document. When you are writing a report, for example, it is handy to be able to view the client’s file simultaneously with the document you are working on. Similarly, if you are working on a document with numbers, such as your business financials, it is often desirable to cross-reference different sections. This understandably leads to printing documents to make it easier to cross-reference. However, this adds up to a significant amount of paper that will end up in the shredder shortly after printing.

If you find yourself in this situation a lot, you should consider investing in a multiple-monitor setup. Multiple screens provide more room to work with all the information you need, and you will not have to print off any paper. This type of setup will help boost productivity and make work simpler. If you have a relatively new desktop computer with one monitor, you can have your machine

upgraded by installing a dual monitor graphics card for around A\$400, plus the cost of the second monitor. A word of warning, though. Once you have used multiple screens, you will not want to return to a single-screen setup. Some years ago, we bought a three-screen setup for work and then found our one-screen setup at home very limiting. Just as a fast computer compared with a slow computer is a game changer, a multiple-monitor setup is a productivity game changer. If you make the leap, you will not look back.

You might consider a multiple-monitor arrangement indulgent from a cost perspective, but would a professional athlete looking to achieve their full potential utilise anything less than the best facilities? As a professional psychologist, you need to invest in the best technology infrastructure to maximise your performance. With a multiple-monitor setup, you can have one screen for email, another for your diary/practice management system and internet browsing and a third for Microsoft Word and PDF documents.

Multiple-monitor setup for your administrative staff

With the cost of employing a receptionist or administrative assistant, it is a no-brainer to provide them with the equipment to maximise their productivity. Initially, you can get a dual monitor for the staff member doing financial tasks, where having two screens to refer to numbers on one screen and enter data on another is helpful. It will quickly become obvious that the person with primary responsibility for the diary in your practice management software will benefit equally.

Faxing

Your first instinct when moving to a paperless office might be to simply eliminate all faxes, but it is not always possible to get rid of faxes if referrers and other organisations insist on using them.

Clearly, faxing is still embedded in the culture of Australian general medical practices. Faxing seems to be an outdated technology when there are other options available – namely email – that can do the same thing. However, the myriad of systems for secure electronic messaging means that you may need both secure messaging systems and a fax option to be able to communicate with all your referrers.

Small practices may be best served by subscribing to an online fax service, such as eFax, HelloFax and RingCentral. For a large office, electronic fax systems are the perfect solution to eliminating physical paper while still using fax. An incoming fax is received as an email with a PDF attachment, so it can be saved straight to the client's file. An outgoing fax can be sent from your desktop electronically in a similar way to printing a document. Introducing electronic faxing can help you move away from having to create a letter or report, print it out, walk to the fax machine to fax it, collect the send receipt, scan the receipt, upload it to the client file and then put the printed letter and receipt in the shredding bin. Electronically, you can create the letter, send it as a fax from your desktop/laptop and save it to the file, avoiding all those steps.

ProWritingAid

We psychologists spend a lot of our working lives dealing with words on a screen. To make private practice viable, we need to communicate in writing efficiently. A product called ProWritingAid is a great efficiency aid for private practice psychologists. It is a handy grammar checker, style editor, proofreader and writing coach. You will quickly get used to working with its suggestions, clicking to accept or decline. If MS Word and its editing features were a car, it would be a Toyota; ProWritingAid is a Ferrari.

It also integrates with many products, so whether you are using Word, PowerPoint, a web browser, Google Docs, Mac, Windows

or even phone texting, ProWritingAid follows you and provides guidance on how to tidy up your writing. It has an AI rephrasing facility, which, with a click of a button, allows you to receive dozens of rewording options for the sentence you are working on. This feature can help simplify sentences or change the writing style, such as from formal to casual. ProWritingAid requires a paid subscription, but it is well worth the investment.

Recommendation #18: ProWritingAid

Take out a 12-month subscription to ProWritingAid.

Waiting room music

Digital technology can help you regulate the volume of music played in your waiting room to create a consistent, pleasant level of noise. Decibel X is a free mobile app available for both iOS and Android devices that measures sound pressure levels in decibels (dBs) and provides real-time noise level readings. It allows you to work with your reception staff to agree on a dB level you can then aim to consistently achieve. We have found that not using technology like this to measure the sound level meant we had variability, given our staff members' varying perceptions of noise level and the personal preference of the one in charge of the music. This technology allows you to provide a consistent experience to your clients. In terms of the optimum level, some sources consider 60–70 dB to be the ideal range for waiting room music, while others aim for 45 dB. Moreover, research indicates that music with lyrics is more effective than music without lyrics (i.e. instrumental music) for reducing anxiety and creating a positive waiting room experience.

Audacity

Audacity is a free, open-source audio editing software that can be used to record and edit audio files. Audacity is perfect for recording sessions with supervisors or clients, and it is very simple to use. Check it out at <https://www.audacityteam.org>.

Coviu for telehealth

Coviu is an Australian-based collaboration platform that helps users communicate and work together remotely. It offers a range of features, such as videoconferencing, screen sharing, document sharing and virtual whiteboarding. Emphasising security and privacy, Coviu uses end-to-end encryption to protect user data and communication, ensuring that all conversations and documents shared through the platform are secure and confidential.

Therapists in Tech

Therapists in Tech is a free member organisation that provides a forum for those interested in digital mental health to upskill and network with like-minded colleagues. Learn more about Therapists in Tech at <https://www.therapistsintech.com>.

Key points

- ⊙ Technology allows psychology practices to be fully digital, enhancing efficiency and improving accessibility.
- ⊙ Use the business digital maturity tool to learn your strengths and weaknesses.
- ⊙ Paperless practices save costs on paper, printing, storage and file retrieval.
- ⊙ If you are responsible for the client intake process at your practice, set a goal to create a digital intake process within three months from today.

- ⊙ Automation can potentially improve efficiency and effectiveness.
- ⊙ Email and text correspondence with clients can be an efficient way to reinforce skills discussed in sessions and keep clients focused on their goals.
- ⊙ Transitioning from paper-based systems to digital alternatives can be time consuming, but it offers long-term benefits, such as improved file security, easier file retrieval, reduced costs and better organisation.
- ⊙ Take stock of your current paper usage to identify areas where digital alternatives can be implemented. Assess who currently uses paper and for what purpose in your practice.
- ⊙ A digital note-taking device, such as reMarkable 2, Microsoft Surface Pro or iPad, can improve your efficiency and productivity.
- ⊙ If you do not currently use a digital device for note-taking in your sessions, consider buying a reMarkable 2.
- ⊙ If you do not currently have a written procedure for how backing up your digital files, set a goal to create one within one week. Keep working on it until you can describe your procedure as excellent.
- ⊙ Consider a multiple-monitor desktop setup and electronic faxing.
- ⊙ Take out a 12-month subscription to ProWritingAid.

● CHAPTER 11 ●

Your website and social media

Your website

Your website is the single most important piece of digital technology in your practice. It is the primary avenue for clients to make their initial assessment of you and whether they wish to engage with you and your business. In the six months to November 2023, on average 254 calls a month to Mind Health Care came directly from the caller clicking on ‘call’ in Mind Health Care’s Google business profile. Each month, 151 people requested directions to Mind Health Care from the Google profile, and 309 per month accessed the Mind Health Care website from there as well. In total, 714 people per month had some type of interaction with Mind Health Care via the Google business profile.

How do we know those statistics? Google Analytics. We used Google Analytics to learn in great detail about how our website was performing. It was motivating to see that the information we were putting out to the world was being seen and used, and we were encouraged to continue improving the information we provided. Therefore, having a website presence matters, and having your business details correctly, clearly and comprehensively in your Google business profile matters.

Creating a website

Creating a website with an online digital company, such as Wix, has become incredibly easy. Many companies offer user-friendly website builders that simplify creating a professional-looking website. They have customisable templates, drag-and-drop functionality and a variety of features and apps that will allow you to customise your website to meet your specific needs. Many also offer hosting services, domain registration and tools for search engine optimisation. You can update the website as needed and maintain control of your web presence. Overall, such platforms have made it simpler for individuals and businesses to establish an online presence and create attractive, functional websites without extensive technical expertise.

Alternatively, for a moderate cost, you can employ a professional web design company to establish your site. You can then choose whether to maintain your site yourself or pay the company to do it. Like most things in life, you get what you pay for. Depending on how much time you wish to invest in your website and whether you want a basic site, a do-it-yourself option might be right for you. But if you want a high-quality website and to hand ongoing maintenance to a professional, then a web design company is likely the best option for you. Many companies are offering these services. Temerity Digital is a Melbourne-based company that has maintained the Mind Health Care website for the past 15 years. Check it out at <https://www.temeritydigital.com.au>.

Regardless of your arrangement, ensure that you have access to data on which pages of your website are being visited and how often. This is invaluable for knowing what your visitors are interested in and where you should concentrate your efforts on improving your website, which is something that definitely needs to be done. It is one of those jobs that is never finished, as you can always enhance

your website. By monitoring the number of visitors to your website and the particular pages they are accessing, you can better understand what your current and prospective clients are interested in, as well as what they are not.

When creating your website content, be mindful to adhere to all Australian Health Practitioner Regulation Board (AHPRA) requirements, particularly the guidelines for advertising a regulated health service. The AHPRA website has an excellent digital self-assessment tool to help ensure you comply with the national law. It can be found here: <https://www.ahpra.gov.au/Resources/Advertising-hub/Resources-for-advertisers/Self-assessment-tool.aspx>.

The areas where psychologists can run into trouble include:

- False, misleading or deceptive wording
- Offers of gifts, discounts or other inducements without the terms and conditions of the offer being stated
- Use of testimonials
- Creating unreasonable expectations of beneficial treatment
- Encouraging the indiscriminate or unnecessary use of a regulated health service.

Videos on your website

Video is a powerful medium for conveying yourself to prospective clients. It can help you to stand out from others as the psychologist clients want to see. Psychologists generally do not like writing or talking about themselves, and the idea of making a video is not always warmly welcomed. Unfortunately, clients *love* to view a video of a prospective psychologist. A video introduction is a quick and easy way to supercharge your website and improve the frequency with which you engage with new clients. If you are looking to attract more clients, then take the time to create a welcome video.

If you were to do a 1-2-minute introduction video, what would you say to the prospective client? This is a valuable exercise to clearly

state what you are about as a psychologist and what you want your practice to stand for. You can check out the Mind Health Care psychologists' welcome videos at <https://www.mindhealthcare.com.au/our-team>.

How to create your video

A variety of simple and easy ways to create a video will not cost you anything. You can record a short video using the webcam you use for telehealth video consultations, or you can ask a friend to use your phone to take a video of you. Upload and edit your video on a service like YouTube, where you can create your own channel for free. You can then insert the YouTube link into your website profile. This is how we did it on the Mind Health Care website. A professional video service could have added visual aids to improve the overall quality, but many of the psychologists' videos were recorded in their office using a mobile phone – and maybe they were better because of their authenticity.

Another advantage of making a video yourself is that you can update and adjust it easily. Your YouTube account will allow you to access statistics about the number of views your video has received. You can also ask some of your recent new clients whether they looked at your video and whether you should adjust anything. In our experience, clients look at several videos before deciding on the psychologist they are interested in working with.

As long as the visual and audio quality is adequate, you really do not need to overthink what you are going to say or how you are going to do your video. Clients just want to hear a few words from you. What do you look like? What do you sound like? Are you the sort of person they think they will connect with? Engaging with you is potentially a subjective decision by the client. You might be an expert in bipolar disorder, and they might have bipolar disorder, but if they do not gel with you, your expertise might not be enough.

If the client is to make that decision, as is their right, then it is best that they make that decision before booking with you for the first time than in the early minutes of your first session and then disengage after one or two sessions.

When Mind Health Care started introduction videos in 2014, each psychologist had a written profile and a head and shoulders photo on the website. The video was an optional extra. Over the subsequent 18 months, little changed. Those with videos did not change their videos, and those who decided against having a video did not change their minds. What played out was an unintended experiment. Those who had a video:

- Received far more views of their profiles than those who did not
- Received far more requests from clients to see them specifically
- Required fewer referrals because their clients had more sessions with them
- Had lower dropout rates (unplanned closures).

The evidence was overwhelming, so having a welcome video became one of the few mandatory requirements for psychologists at Mind Health Care. The clients were the ultimate bosses, and the bosses had spoken.

Recommendation #19: Welcome video

Create a welcome video for prospective clients and add it to your website profile.

It is also worth considering a practice welcome video for new clients. On the Mind Health Care website, you can see a general practice video, and at the top of the screen, you can click on a tab

that leads to a welcome video that is sent to new clients when their referral is first received.

LinkedIn

LinkedIn is a free social media site for professionals – unless you pay for a premium subscription, which is not necessary. LinkedIn has over 1 billion of the world's professionals registered on the site, including many psychologists from Australia. LinkedIn is an excellent way to share your work and view the work of and network with other psychologists. Traditionally, organisations such as the Australian Psychological Society were the only medium for broad networking among psychologists, but services like LinkedIn have created new options. If you are looking to recruit psychologists to your practice or looking to promote your work, then LinkedIn is well worth considering.

LinkedIn is also great for following the leaders in our field. If you are an early career psychologist, you should definitely be connecting with, or at least following, those psychologists who lead discussions on LinkedIn. It can help you feel engaged and connected to your professional community, and it is a terrific way to hear about the latest CPD opportunities, books, articles and commentaries relevant to our profession.

Recommendation #20: LinkedIn

Create a LinkedIn account and commit to making three posts and connecting with 500 Australian psychologists within three months.

Key points

- ⊙ Your website is crucial for clients to assess and engage with your private psychology practice.
- ⊙ Use Google Analytics to monitor website performance and tailor your profile to showcase your services effectively.
- ⊙ Online platforms such as Wix offer user-friendly website builders with customisable templates, making it simple to create a professional website without extensive technical knowledge.
- ⊙ Choosing a web design company like Temerity Digital, which has a proven track record in maintaining websites like Mind Health Care for over 15 years, can ensure high-quality website creation and ongoing professional maintenance.
- ⊙ Create a welcome video for prospective clients and add it to your website profile.
- ⊙ LinkedIn is a great free opportunity to connect, follow and network with other psychologists.
- ⊙ Create a LinkedIn account and commit to making three posts and connecting with 500 Australian psychologists within three months.

● CHAPTER 12 ●

Additional useful technology

Keyless locking systems

If you own a psychology practice, one security consideration is who has access to your building. If you are using a traditional key system, over time, you are likely to lose control of who has access to the building. People lose keys, and there is nothing to stop them from getting additional keys cut without your knowledge. So even if you have a very diligent system for recording who has a key, you still cannot be sure who has access. Hence, you have little oversight of who is accessing your building and when.

A digital system will allow you to regain control over who has access to your building and when. Each person is assigned a fob or a passcode/PIN to enter, which you can cancel or adjust. Your cleaner, for example, can be issued a fob that allows entry at specific times and days. You can also provide a code to your clients if you have a secure waiting area for them to sit in once they arrive. Such digital lock systems also allow you to access a record of who has entered and when via an app. There are many models on the market, such as the ML-Windsor-M-60, a commercial-grade system that is appropriate for weather exposure. We suggest you take a photo of the door you want to install the lock on and discuss your needs and options with a locksmith who can supply and fit a system for you.

Security cameras

Security cameras are becoming increasingly common across society, and there are many makes and models in the market. For many practice owners, getting security cameras to monitor their practice will be a decision they come to reluctantly. At first, we were reluctant to install security cameras, as we were concerned about people complaining. But when we installed them – initially one in the waiting room and one outside the reception entrance – nobody expressed any issues with them. Only a few people commented on them, although they were placed deliberately to be obvious.

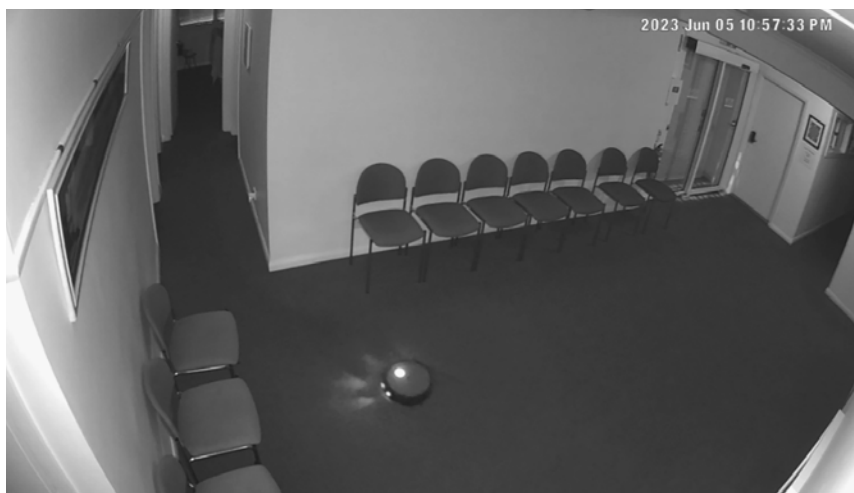
The considerations for private psychology practices when choosing a security system include:

- Are you prepared to pay for a cloud backup service of your recordings, or do you prefer a system where the data is saved to a local (on-site) hard drive? You will need to investigate the appropriateness of the data storage if you go for a cloud-based service.
- How many cameras do you need, and where will you put them?
- Will the system allow you to add additional cameras at a later date?

Graham the robot vacuum

The photo on the following page is taken by the Mind Health Care waiting room security camera of Graham, the robot vacuum, still working at 10:57 pm on a Monday. Graham starts work at 8 pm seven nights a week and does not rest until the job is done or his battery needs a recharge!

Graham is the perfect example of what private psychology practices should look for when they are attempting to better utilise simple and practical technology to save time and money. Nevertheless,



Graham is not as good as a human and sometimes needs a hand, as small amounts of visible dirt in high-traffic areas are a robot's bread and butter. If we had waited for a robot vacuum that performs as well as a human to become available, we would have been waiting a very long time. Graham *helps* humans, allowing our cleaner to do less vacuuming and, therefore, focus more on jobs that humans do better than robots. The result is a better overall cleaning job and a nicer, healthier environment for our staff and clients.

If Graham lasts four years and costs A\$500 (A\$2.40 per week plus electricity), can he be an investment in digital technology for your practice that pays for itself by freeing up the humans to do higher-level work? Graham is an iRobot Roomba i2 robot vacuum; there are many other models on the market, and we encourage you to take a little time to think about what your needs are and find the unit with the features and price that suit you.

A word of warning: if you think a robot vacuum works well in your practice, you probably will not want to go home to a house without a robot vacuum. iRobot allows you to link multiple units to its app so you can control your work and home robots from your phone from anywhere in the world with an internet connection.

Oculus Quest 3

If you are interested in exploring the use of virtual reality (VR) in your practice, you will be confronted with two initial questions. What hardware do you need? And what software do you need? A good place to start is a device like the Oculus Quest 3, a VR headset developed by Facebook Technologies, a subsidiary of Meta Platforms Inc. (formerly known as Facebook). It offers a full standalone VR experience, meaning it does not require a PC or external sensors to operate. You should be able to pick one up online for around A\$700.

The Oculus Quest 3 has access to a wide range of VR games, applications and experiences through the Oculus Store. Some are free, but most will require you to make a purchase. This type of VR may have value for clients via meditation apps. Some of the most popular meditation apps include Tripp, Maloka and Hoame. The Oculus Quest 3 offers an affordable opportunity to begin experimenting with VR.

Dreampad

The Dreampad is a therapeutic pillow designed to enhance relaxation and sleep quality. It features a built-in speaker that emits music or sounds engineered to be felt more than heard, activating the body's relaxation response. This can aid in falling asleep faster and experiencing deeper sleep. The gentle vibrations aim to reduce stress and promote calmness. Users can customise the audio with soothing melodies, white noise or guided meditations, making it suitable for individuals with stress, anxiety, PTSD, autism, ADHD, traumatic brain injury and other conditions. The Dreampad connects to a mobile device via Bluetooth and is controlled through an app. It comes in various sizes and materials to accommodate different preferences. You can visit the Dreampad website at <https://dreampadsleep.com>.

Key points

- ⊙ Digital locking systems with fobs or passcodes instead of traditional keys offer better control over who can access your building. It allows you to track entry and revoke access if needed, providing enhanced security and oversight.
- ⊙ Security cameras can improve the safety of your practice. Clients are now habituated to this technology.
- ⊙ Utilising technology like robot vacuums can save time and money for private psychology practices.
- ⊙ VR devices such as Oculus Quest 3 are an affordable opportunity to begin experimenting with how you might introduce VR to your practice.
- ⊙ Some of the most popular Oculus Quest 3 meditation apps include Tripp, Maloka and Hoame.
- ⊙ The Dreampad, a therapeutic pillow with soothing sounds and vibrations, enhances sleep and relaxation, especially for those with stress-related sleep issues.

● CHAPTER 13 ●

Artificial intelligence in mental healthcare

Throughout our journey of exploring the digital landscape in mental health resources, we have engaged with a multitude of pioneering products and companies at the forefront of integrating AI into mental healthcare. These include Florence, Sleepio, Woebot, Wysa, Osher, Lyssn, Ieso, SonderMind, Feel Therapeutics and Story Health. Beyond the realm of healthcare, we have delved into products and companies such as Otter AI and ProWritingAid, which offer AI-powered tools that enable psychologists to expedite and enhance note-taking and report-writing tasks. These shifts hint at profound changes on the horizon, but what do they all mean for the psychology profession?

We foresee AI having a transformative effect on the psychology profession akin to Microsoft Excel's impact on the accounting industry. In the late 1980s, there was widespread fear of job destruction in the accounting industry caused by Excel's release in September 1985. What actually happened was the number of accountants boomed, and they did more complex and valuable work for their clients. In 1979, there were 299,000 accountants in the US. By 1989, there were 524,000, and by 2023, there were approximately 1.4 million. Likewise, AI will make psychologists more efficient by allowing us to do more complex and valuable work for our clients and reducing the time spent on mundane, unskilled tasks that detract from the overall value of our output.

What is AI?

AI refers to computer systems capable of making decisions in an independent and flexible way. A calculator, for example, processes numbers with speed and precision with unvarying results, but it lacks the capacity for learning, adaptation and decision-making that are characteristic of AI systems. When you are typing a text message or email on your phone and the system offers a suggestion for the next word, it is intelligent because it is making decisions based on evolving inputs. You are using an AI system.

There are many tasks that AI can perform faster, better and more cheaply than humans, which is why it is already embedded in the background of our lives. Whenever you receive an alert about a potentially fraudulent or unusual purchase on your credit card, there is an AI system operating in the background. It can detect suspicious purchases because it is good at identifying patterns and evaluating options. Similarly, AI is hovering in the background when you watch Netflix, observing and learning about your preferences to be ready to provide you with suggestions of what to watch next.

What are generative AI and general AI?

ChatGPT is a well-known form of what is referred to as generative AI. Generative AI is a form of machine learning that can produce text, video, images and other types of content based on user-given prompts by relying upon massive amounts of decipherable data. Artificial *general* intelligence (AGI), on the other hand, is a significant step beyond generative AI. While generative AI is focused on solving specific problems, AGI is designed to solve any problem that a human can.

Imagine when future digital assistants evolve to demonstrate a level of general intelligence – a capacity to demonstrate empathy towards others and respond using a functional contextual approach

(i.e. ‘I’ in the context of ‘you’). It was speculated that AGI would not arrive before the 2040s, but such is the rate of development in this area that in recent years, speculation has moved towards an arrival in the late 2020s or early 2030s. There is a saying in technology: what is supposed to take 10 years takes three, and what is supposed to take three years takes 10. While autonomous driving seems to be an example of the latter, the pace of progress in AI and its real-world applications already deployed indicate that AI is set to impact our work lives as psychologists at a much faster rate than previous transformative technologies.

AI as your digital assistant

One big AI change for psychologists will be in note-taking. It will become standard to generate session transcripts; however, this is not an endpoint. Session transcripts will be a key starting point to allow AI to flourish in a psychology practice setting. Once there is a transcript of a session, AI can easily:

- Create an accurate first-draft summary of your session notes and supply it to you instantly
- Quickly analyse large texts (such as a large file of a new client), identify key points and provide you with a concise summary
- Generate treatment planning recommendations
- Create a draft of your letter back to the referrer
- Generate summaries of your peer consultation sessions and CPD activities
- Enhance your treatment planning and research by quickly gathering information and understanding concepts when exploring a new topic (think Google on steroids)

In addition, AI can write and polish your writing, producing content that remains unique and personal to you but at a much quicker speed than by traditional means. We are already seeing this

through products such as ChatGPT and ProWritingAid. This trend is going to continue to accelerate exponentially.

AI in quality control

AI is revolutionising the delivery of care in medical settings right now. Hospitals are buying AI systems to improve care and streamline administration processes – not to replace humans. AI systems are being used to scan millions of electronic medical records to find symptoms of otherwise unidentified diseases in a fraction of the time required by a human doctor. These systems will likely be used in the future to find otherwise untraceable signs of infection as early as possible in a hypothetical pandemic. Similarly, imagine when you can routinely have AI analyse your client files to identify diagnoses you may have missed or signs of deteriorating mental health before you are aware. Your digital assistant can scan through all your files in the blink of an eye and never get overwhelmed by the volume of data.

AI is also excellent at predicting health events and determining which data are relevant to treat a specific client's condition. Using AI in private psychology practice for this purpose will be a standard practice in a decade, as using email is now. These types of developments in the coming years will turn paper-based notes from antiquated to inappropriate because paper-based notes will not allow for best practices to be applied. If you have digitalised files, you will have a distinct advantage over those using paper files. You need to be digitalised to access the benefits of AI.

AI and productivity

AI is already transforming other consulting industries by minimising repetitive tasks, improving the accuracy of predictions and making it possible to create entirely new business models. Although this change offers many benefits, it also poses a threat to

the traditional consulting business model of high fees for individual services. AI allows start-ups to offer results similar to traditional consulting businesses at a much lower cost.

The legal industry is similar to the psychology profession in terms of fee-for-service consulting. It is currently undergoing major changes as new business models appear in the market, driven by technology companies creating products and services for the legal industry as opposed to the legal industry utilising technology. It is almost certain that technology companies will increasingly disrupt the psychology profession. We have explored many examples in this book. What is not so certain is what their role will be and how much opportunity we will allow them.

- Will we utilise technology companies' solutions to adapt our businesses and offer greater value to clients?
- Will we resist these opportunities?
- If we resist, will technology companies go directly to consumers with comprehensive products that bypass traditional psychology providers entirely?

We will see this in due course, and the outcome will depend on how traditional psychology providers respond to new technology opportunities in the coming years. If we are lean and efficient and provide excellent value to clients, we will not make ourselves an easy target. Resistance risks being superseded rather than facilitated. Traditional psychology practices will need to utilise the available AI technology to drive improvements in efficiency and lower costs. One such tool that has made enormous waves in the media and has started to appear in psychology practices is Open AI's ChatGPT.

ChatGPT

Chat Generative Pre-trained Transformer, also known as ChatGPT, has taken the world by storm since its release on 30 November 2022. It is designed to assist with various text-based tasks, such as drafting

emails, answering questions and creating written content. It has been trained on a vast amount of text from the internet, which equips it to generate human-like responses to user prompts. Hence, ChatGPT has many uses that are relevant to the work of psychologists. If you are contemplating the integration of ChatGPT into your workflow but are unsure where to begin, here are some suggestions:

Invest in ChatGPT Plus	Subscribe to ChatGPT Plus, the paid version. Currently, there are two versions: GPT-3.5, which is free, and GPT-4, which requires a payment of A\$34 per month to use. Your time is too valuable to waste on the inferior free version. Why use a shovel when you can use a bulldozer? The cost is well worth it for the superior outputs.
Incorporate ChatGPT into your daily routine	Develop a habit of keeping ChatGPT active during your working hours alongside your email and practice management software. You need to engage with ChatGPT often, so embed it as a tool you routinely use to solve challenges during your workday. A new habit of thinking routinely about how ChatGPT can help you should be formed.
Master the art of prompting	If Google were a horse, then ChatGPT is a car capable of taking you further and faster, but only if you know how to drive! The key to unlocking its full potential lies in your ability to ‘drive’ it effectively. Your breakthrough moment will arrive when you master crafting detailed prompts. Tailor your prompts with specific personas, specialisations and desired outcomes, and let ChatGPT ask you for contextual information that can enhance its responses. If you prompt ChatGPT with ‘give me a paragraph explaining CBT’, you will not get as good a response as if you are more specific: ‘I’m an expert psychologist

	consulting with a young adult with depression. Please explain simply in one paragraph what CBT is and why it is helpful with depression.’ Remember that the quality of the output is directly proportional to the quality of the input (prompt). If you give ChatGPT lazy prompts, ChatGPT will give you lazy outputs.
Foster a collaborative relationship	Treat ChatGPT as a personal assistant and engage with it as you would with a human. Training, encouragement and clear instructions are vital to harnessing its capabilities fully. You would not bark six words at a human assistant on their first morning at work and expect a good response. It is the same with ChatGPT.
Prioritise privacy and security	While ChatGPT is a powerful tool, it is essential to remain cautious about the information you share with it. Always de-identify sensitive data, and do not input information that you would not want to be viewed in a public forum.

ChatGPT offers an exceptional opportunity for the tech-savvy psychologist to improve their efficiency. Some people’s current reluctance to embrace AI, such as ChatGPT, is a strategic opportunity for the rest of us to seize this new tool and improve our practices. AI can ultimately be viewed as a threat or an opportunity, but regardless, in the coming years, AI will not take psychologists’ jobs. Rather, psychologists who use AI will take the jobs of psychologists who do not use AI.

Recommendation #21: ChatGPT Plus

Purchase a one-month subscription to ChatGPT Plus and use it every workday for one month.

A real-world example of ChatGPT saving time

We wanted to produce a flyer for clients about joining the Halaxy (our practice management software) client portal so that they could make, cancel and reschedule appointments themselves online. We cut and pasted several Halaxy how-to articles related to the client portal onto ChatGPT and provided a detailed description of what we wanted, which was a very simple one-page flyer for clients explaining how to join the portal. What ChatGPT produced was not perfect, but it was a very good draft. The time saved by getting it to condense the information into a few short and simple instructions easily paid for the month's subscription.

We will now explore some real-world examples of companies using AI to improve mental healthcare.

AI improving mental healthcare today

Ieso is a UK company pioneering a new approach to mental healthcare. It uses AI to analyse the language used in therapy sessions to identify which parts of a conversation between client and practitioner and which words and themes are most effective in treating different disorders. This technology aims to provide psychologists insight into what they do, thus helping them improve. Like Lyssn, which we discussed in Chapter 8 on outcomes measures, Ieso's technology gives psychologists feedback on how to adapt their approach to improve outcomes. This is an automated form of quality control, and automation is the key here, as manually analysing session scripts is highly impractical because of the time and cost involved.

Ieso used its dataset of over 90,000 hours of transcripts of CBT sessions and the associated outcome measures to identify the relationship between different aspects of CBT and clinical outcomes. It found that a higher quantity of change methods (i.e. CBT techniques) was associated with a greater likelihood of

reliable improvement in client symptoms. Conversely, a higher quantity of non-therapy-content was associated with a reduced likelihood of symptom improvement. This type of analysis can potentially be used in the future as a tool for psychologists to analyse their practice and receive feedback on the balance they are achieving between therapy- and non-therapy-related content in their sessions. The study citation can be found in the further reading section.

The insights from this study were distilled into a decision support tool that provided live feedback on therapists' work within a session, nudging them toward techniques shown to improve outcomes. This system achieved recovery rates of 12 per cent and 15 per cent above the UK national average in 2021 for depression and generalised anxiety disorder, respectively.

Imagine having an Ieso-like training tool in university settings and a virtual client like Florence for trainees to interact with. Trainees would be able to practice applied skills in a safe, evidence-based training simulator. It has been suggested that this type of innovative digital training experience would be particularly important in low-income and middle-income countries, where it can help non-specialists rapidly develop basic psychotherapeutic skills. We believe this training technology would be an invaluable tool in *any* setting for all mental health professionals to continue honing their skills. While truly clinically integrated solutions such as Ieso's are rare now, they will become more prominent in the coming years.

Beyond providing feedback to psychologists, this technology also has amazing potential for research exploring our understanding of therapy's active ingredients by identifying connections that humans have not yet discovered. AI can mine vast amounts of data, including those from previously untapped sources, and it can potentially reveal insights into how psychotherapy works beyond what is currently known to science.

A practical example is the automated analysis of transcribed speech. Disorganised speech is a powerful predictor of later psychotic illness in high-risk individuals. Technology has been used to quantify a variety of elements related to incoherent speech, such as semantic coherence, speech graph connectivity and a measure of where speech was on-topic, which can differentiate between subjects identified as high risk for psychosis and healthy controls.

Lyssn, from Chapter 8, is also using AI technology to support healthcare providers in improving client outcomes. For example, it developed an AI-enabled quality assurance platform that is being deployed to assist the US-based Protocall Services, a national provider of crisis response and suicide prevention services, including 988, the American equivalent of Lifeline in Australia. The technology focuses on empathetic suicide risk assessment and safety planning, helping those delivering services to more frequently provide services consistent with best practice guidelines. How long until we utilise similar technology to drive improvements in our crisis support services?

Precision psychology

The term precision medicine gained recognition when the Precision Medicine Initiative was announced by former US President Barack Obama in his State of the Union address on 20 January 2015. Instead of a one-size-fits-all approach, precision medicine aims to tailor medical decisions, treatments and interventions to the specific characteristics of each patient. AI holds the key to the development of a precision medicine approach to psychotherapy modalities. As there are many types of psychotherapy, affective computing biomarkers may be used to monitor responses to psychotherapy and determine which type of therapy a client is most likely to respond to. Clients currently receive either the modality that experience tells the psychologist is best, or, more commonly, the client gets a

one-size-fits-all approach of whatever modality their psychologist has come to adopt. In the future, the client will be advised by AI about which modality they are best suited to respond to.

The digital assistant's voice: your language, your accent

Technology that changes call centre workers' accents to sound more like the local dialects of those they are speaking with is already being deployed. The software is being used to change how people sound in real time. Although this technology has been condemned by some as racist, it has been used to reduce verbal abuse towards call centre workers. In a similar fashion, the line judges replaced by machines during the 2021 Australian Open tennis championship were programmed to speak with an Australian accent. Sanas, the company that developed the technology, says it can help improve connections between us, no matter who we are talking to or where we are calling from. Thus, when we interact with digital agents in the future, we can expect a familiar voice tailored to our geographical location.

AI will make us better

AI is a fast-evolving technology, and psychology practice is ripe for AI innovation. Indeed, a better name for AI is *enhanced* intelligence. AI is all about using the intelligence of technology to enhance our work. AI will do many of the things we and our administration team find boring, such as writing up session notes, putting administrative details into doctor letters and generating drafts of letters and reports, allowing us to do more high-value work and less of the tasks that do not need human thought processes.

The threat of AI revolutionising the workplace and eliminating large numbers of workers has been on the horizon for decades. Following the emergence of OpenAI's ChatGPT and the various

incarnations that have followed, the media coverage has heightened that anxiety, but it is highly overblown. AI will eliminate some tasks, but it will not replace psychologists in any great numbers in the next two decades. But just as psychologists who use email have replaced those who do not use email, psychologists who use AI will replace those who do not use AI.

Although AI will not replace many of the core elements of the psychologist's role anytime soon, it will make us better. AI will serve as our personal assistant, working in the background, collecting and organising multiple data sources and summarising them clearly so that we can focus on the therapeutic work and the relationship with the client. AI will deliver more efficient and equitable healthcare, where data will become embedded in mental health treatment providers' clinical decision-making and the culture of professional psychological practice.

Key points

- ⊙ AI is likely to have a similar impact on the psychology profession that Excel had on the accounting industry. AI will allow you to spend more time working at the top of your scope to deliver higher-value work for your clients.
- ⊙ AI will be your digital assistant, playing a critical role in your note-taking, report drafting, treatment planning and many other tasks.
- ⊙ AI is excellent at analysing large datasets to detect patterns much faster than humans can.
- ⊙ AI will operate in the background to alert you to missed diagnoses and guide your clinical work to be more efficient and effective for your clients.
- ⊙ Precision medicine aims to customise medical treatments based on individual patient characteristics, and AI has the potential to bring a similar approach to psychotherapy.

● CHAPTER 14 ●

The exciting future

We are on the cusp of technology revolutionising the delivery of mental health services, but as we have explored, the demise of the human therapist has been highly overstated. As mentioned, psychologists will not lose their jobs to AI chatbots, virtual therapists, digital therapeutics, data coaches or any of the other innovative products coming to market. The technology to create a psychotherapy chatbot of a quality comparable to that of a real-life psychologist is unlikely to arrive before the mid-2030s at the very earliest. Even then, will every consumer choose a machine over a human interaction? Of course not. The smartest minds in the field of digital health technology and the leading health technology companies are focused on developing technology to complement and enhance mental health practitioners, not replace them. It will liberate us from what can be automated or otherwise accomplished via technology to do more complex and value-adding work for our clients, just like how accountants benefited from the creation of the Excel spreadsheet. To remain competitive in the long term, we must harness the help that technology can provide to add value for our clients.

The client experience of engaging with a private psychology practice that has fully embraced digital technology will be significantly different from the traditional experience. Digital technology will revolutionise the field of psychology, providing new tools and opportunities to support mental health and well-being.

Like all healthcare businesses, our psychology practices are now operating in a digital economy. We will be challenged to adapt to deliver an optimal digital experience to our clients, combining the human touch with the power of technology. This will require us to place increasing importance on staying abreast of technological developments.

The benefit and great hope of digital technology in mental health treatment is that it will overcome the major issues outlined in Part 1. Digital technology is crucial in scaling up access to mental health services. It allows us to extend beyond brick-and-mortar settings, particularly for those in geographically isolated locations. It can improve the efficiency of care, increase client engagement, reduce costs and engage those who might not be willing or able to use face-to-face care. Thus, digital technology is democratising access to efficacious interventions.

Clients are becoming increasingly informed about their conditions and the evidence-based treatment options available. Via a digital gateway, they will have completed a thorough assessment process and identified their likely diagnosis before engaging with a psychologist. This information will be held in the digital gateway to assist in treatment planning. They are also likely to have uploaded information from their wearable devices, including years of data, which will provide health metrics on a range of variables and allow the system to make an informed assessment of the likely trajectory of their mental health. This system will use all this information to create an in-depth portrait of the client, including their mental health history and current needs.

The digital gateway will also have extensive information about mental health providers within the client's geographical location and further afield via telehealth. The system will know each provider's previous performance via outcome measures and match the client being referred to the provider whose clients match their

description. The system will also know the suitability of the client for an intervention delivered through telehealth and, if suitable, will offer matching recommendations both within and outside their geographical location.

The psychology profession has spent the past 60 years asking which therapeutic approach is best suited to the individual client. Big data and machine learning will provide us and our clients with data-informed guidance on this question – namely precision psychology. The digital gateway will use AI to take into account all the data within the system to make informed choices about connecting consumers with psychologists. Over time, the AI's performance will continue to improve on the outcomes it can obtain for clients. This is because it will be fed more and more information as more and more clients and psychologists utilise the system.

Precise referral allocation advice will result from this thorough assessment process and detailed provider information, boosting clients' confidence in the system. The days of having a brief assessment of their mental health condition from a doctor with minimal psychometric testing and then being referred to any available provider will be a distant memory.

This system will place much more responsibility on the mental health provider to transparently deliver good client outcomes and provide (de-identified) client outcomes to the system to continue receiving referrals. Providing VBC and MBC, while not mandatory, will be necessary to continue receiving referrals for which the government provides funding. Therefore, the system will serve as an important quality assurance mechanism for clients and funding bodies.

It will also lead to the best-performing psychologists being able to charge far more than their colleagues. Just as the highest-performing sports stars earn more than their average-performing colleagues, all healthcare providers, including psychologists, will

experience the same, as performance will become as clear and transparent as it currently is in sports. When the game was on the line, the Chicago Bulls wanted the ball in Michael Jordan's hands. We do not know who the Michael Jordan of Australian psychologists is yet, but when we do, the wealthiest people in our society will want that psychologist to look after their loved ones. Money will not be an obstacle.

While there has been considerable debate within the mental health profession about which type of mental health provider should deliver services, such as mental health nurses, mental health-accredited social workers, counsellors, psychologists or clinical psychologists, this debate will be muted by the digital gateway system. In this truly integrated stepped care model, the client will be directed to a provider with a proven track record of delivering outcomes with the client's presenting issue.

The tech-savvy psychologist of the exciting near future will be AI-powered. When we hear projections about AI, we think of incremental advances in the current technology and may be inclined to dismiss the projection. But with AI, we need to think exponentially to comprehend its development. AI is *not* advancing incrementally; it is advancing *exponentially*, and there is no reason to suspect that we are reaching the limits of what it can do to assist us. Hence, the tech-savvy psychologist expects magnitudes of improvement in AI soon and is getting ready to take advantage of opportunities as they arise. It is because of this exponential rate of improvement in AI technology that we are on the cusp of a revolution in the delivery of mental healthcare.

We are in the age of technology-driven mental healthcare. The future is blended care, which involves a combination of traditional therapeutic techniques and new digital technologies. Just as planes that can technically fly themselves still have pilots in the cockpit, psychologists will play an important role in piloting

the delivery of cutting-edge blended mental healthcare. Technology can improve the care of people with mental illnesses, but it cannot replace actual care for most mental health consumers. The coming years will be very exciting and promise a massive leap forwards for mental healthcare consumers in Australia and around the world. Digital technologies and the work of technology innovators will break the mould of traditional mental healthcare services, and we will all benefit immensely.

● THE TECH-SAVVY PSYCHOLOGIST ● MODEL – RECOMMENDATIONS

Recommendation #1: PsychProfiler (page 35) *Use PsychProfiler with one client whose diagnosis you are uncertain of to experience the tool. Then, consider whether PsychProfiler can assist in your work with other clients.*

Recommendation #2: Florence (page 49) *Visit the Florence website to experience interacting with a virtual agent: <https://www.who.int/campaigns/Florence>.*

Recommendation #3: Soul Machines (page 49) *Visit Soul Machines website to experience interacting with a virtual person providing answers to your questions, powered by ChatGPT: <https://www.soulmachines.com>.*

Recommendation #4: Made4Me (page 51) *Encourage one client who is particularly proactive and wants to learn more about their condition to use the Made4Me program: <https://www.mentalhealthonline.org.au/pages/about-the-made-4-me-program>.*

Recommendation #5: One Mind PsyberGuide (page 58) *Visit the One Mind PsyberGuide website to search for an app and get clear information about its credibility, user experience and transparency, as well as read reviews about the app's advantages and disadvantages: <https://onemindpsyberguide.org>.*

Recommendation #6: VA App Store (page 60) *Visit the VA App Store to get a sense of what is available that you may want to use with clients: <https://mobile.va.gov/appstore>.*

Recommendation #7: Sleep Cycle (page 70) *Use Sleep Cycle yourself for at least one week and consider whether this may be something that your clients can benefit from: <https://www.sleepcycle.com>.*

Recommendation #8: Wysa (page 83) *Use Wysa yourself for at least one week and consider whether this may be something your clients can benefit from: <https://www.wysa.com>.*

Recommendation #9: deprexis (page 92) *Visit the deprexis website to learn about the type of digital therapeutic Australian mental health consumers may have access to in the near future: <https://www.deprexis.com>.*

Recommendation #10: NovoPsych (page 99) *Utilise NovoPsych's free trial to experience it and consider whether it can help you and your clients: <https://novopsych.com.au>.*

Recommendation #11: 'Empathetic Understanding' podcast (page 104) *Listen to season one, episode one of the Learn Psychotherapy podcast, titled 'Empathetic Understanding': <https://open.spotify.com/episode/2mIibivZBtouZZTCi9hSSu?si=quoO8IXATneyiLsdUINVew>.*

Recommendation #12: Outcome measure graph (page 105) *Work out a strategy that will allow you to include some form of outcome measure graph in your referrer letters.*

Recommendation #13: Wearable device data (page 120) *Identify one depressed client who is willing to share their wearable device data and see whether the data can benefit your work with the client.*

Recommendation #14: Digital maturity tool (page 128) *Use the business digital maturity tool to learn your strengths and weaknesses: <https://business.gov.au/online/what-is-your-business-digital-maturity>.*

Recommendation #15: Digital intake process (page 131) *If you are responsible for the client intake process at your practice, set a goal to create a digital intake process within three months from today.*

Recommendation #16: reMarkable 2 (page 139) *If you do not currently use a digital device for note-taking in your sessions, consider buying a reMarkable 2.*

Recommendation #17: Backup procedure (page 142) *If you do not currently have a written procedure for backing up your digital files, set a goal to create one within one week. Keep working on it until you can describe your procedure as excellent.*

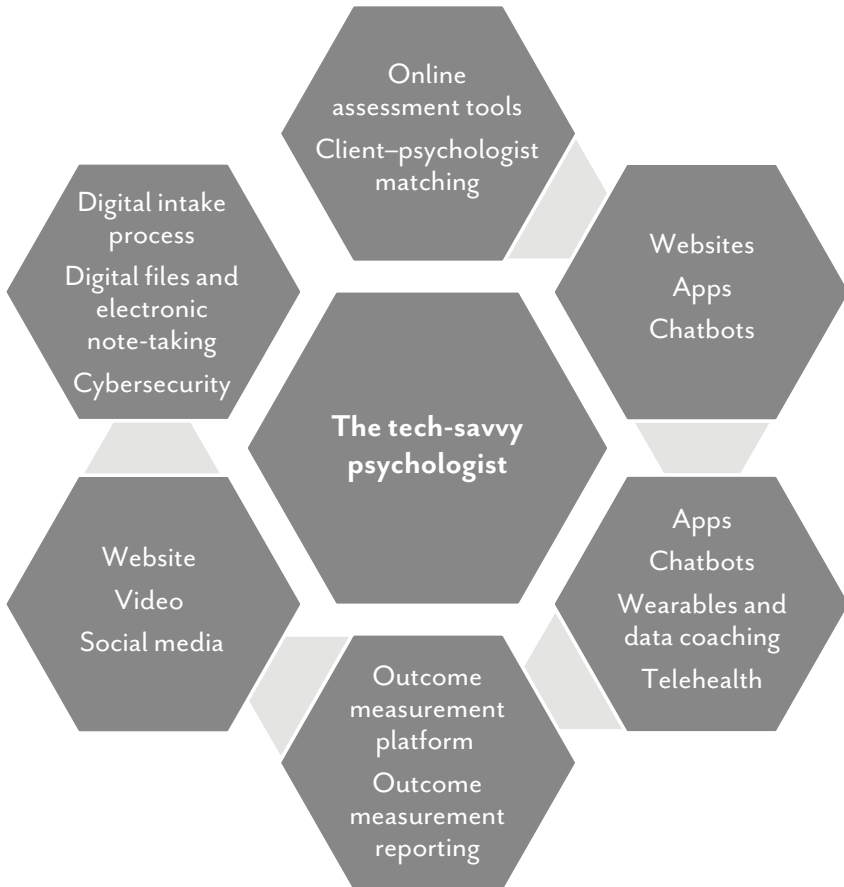
Recommendation #18: ProWritingAid (page 148) *Take out a 12-month subscription to ProWritingAid.*

Recommendation #19: Welcome video (page 155) *Create a welcome video for prospective clients and add it to your website profile.*

Recommendation #20: LinkedIn (page 156) *Create a LinkedIn account and commit to making three posts and connecting with 500 Australian psychologists within three months.*

Recommendation #21: ChatGPT Plus (page 169) *Purchase a one-month subscription to ChatGPT Plus and use it every workday for one month.*

● THE TECH-SAVVY PSYCHOLOGIST ● MODEL – EXAMPLES



● ACKNOWLEDGEMENTS ●

Over the past two years working on this project, we have been blessed by the support and encouragement of our colleagues, who have given so generously to make this book better than we ever could have done alone. Without the random good fortune of Brendan being seated next to Chris Mackey on a flight home from the Brisbane APS Clinical College Conference in 2022, as well as the many hours of discussions that followed, this book either would not exist or would be a poor version of the final product. Thank you, Chris, for all your support and encouragement. Special mention also goes to Dr Steve Carroll, who has been a patient and thoughtful sounding board throughout this project. Others who have gone above and beyond to offer feedback, encouragement and guidance include A/Prof. Kaye Frankcom, Martin White, Ros Knight, Sharon Southwell, Sangita Mishra and Dr Aaron Frost.

● FURTHER READING ●

Introduction

The youth mental health crisis

<https://thepolicymaker.jmi.org.au/digital-solutions-to-australias-youth-mental-health-crisis>
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Barriers to mental healthcare

<https://doi.org/10.1016/j.ssmph.2021.100847>
<https://www.theguardian.com/australia-news/2021/apr/19/like-hunting-for-unicorns-australians-on-the-search-for-adequate-affordable-mental-healthcare>
<https://www.socialsolutions.com/blog/barriers-to-mental-healthcare-access>
<https://www.theguardian.com/australia-news/2022/sep/18/mental-health-outcomes-are-worse-in-the-bush-partly-because-its-easier-to-get-a-gun-than-get-help>

Improving our mental healthcare system

<https://sciencebusiness.net/report/strengthening-prevention-and-treatment-mental-health-sweden-leads-way>
<https://theconversation-com.cdn.ampproject.org/c/theconversation.com/amp/we-cant-solve-australias-mental-health-emergency-if-we-dont-train-enough-psychologists-here-are-5-fixes-190135>

Stepped care

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<https://www.health.gov.au/sites/default/files/documents/2021/04/primary-health-networks-phn-primary-mental-health-care-guidance-stepped-care.pdf>

The future of mental healthcare and emerging technologies

<https://www.healthtechmagazines.com/addressing-the-healthcare-paradigm-with-population-health-emerging-technologies>

<https://www.frontiersin.org/articles/10.3389/fpsy.2020.00523/full#B21>

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Chapter 1

Technophobia in mental health professionals

<https://doi.org/10.1007/s41347-022-00273-3>

<https://whatfix.com/blog/technology-adoption-curve>

Chapter 2

Practitioner perceptions of Head to Health

<https://doi.org/10.1111/ajr.12574>

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IAR-DST <https://iar-dst.online>

PsychProfiler <https://www.psychprofiler.com>

Mental Health Online <https://www.mentalhealthonline.org.au>

Chapter 3

Client–psychologist matching

<https://bhbusiness.com/2023/04/05/patient-matching-sets-providers-and-patients-up-for-success-if-done-right>

Guide to NHS waiting times

<https://www.nhs.uk/nhs-services/hospitals/guide-to-nhs-waiting-times-in-england>

Websites:

SonderMind <https://www.sondermind.com>

LifeStance <https://lifestance.com>

TalkSpace <https://talkspace.com>

Alli Connect <https://alliconnect.io>

Clearing <https://www.clearing.com>

Mindoula <https://www.mindoula.com>

Chapter 4

Effectiveness and cost-effectiveness of online interventions

<https://doi.org/10.1186/s12888-018-1639-5>

<https://doi.org/10.1503/cmaj.150007>

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Efficacy of myCompass

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Soul Machines <https://www.soulmachines.com>

myCompass <https://www.mycompass.org.au>

Mental Health Online Made4Me Program <https://www.mentalhealthonline.org.au/pages/about-the-made-4-me-program>

This Way Up <https://thiswayup.org.au>

Chapter 5

Patterns of real-world usages of apps

<https://doi.org/10.2196/14567>

Regulation and evaluation of apps

<https://medium.com/therapists-in-tech/the-big-blunder-happening-right-now-in-digital-mental-health-b4ab4cd78609>
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APA AEM

<https://www.psychiatry.org/psychiatrists/practice/mental-health-apps/the-app-evaluation-model>

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Department of Veterans Affairs VA App Store <https://mobile.va.gov/appstore>

Organisation for the Review of Care and Health Apps <https://orchahealth.com>

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One Mind Psyberguide and evaluating apps

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Woebot <https://woebothealth.com>

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Chapter 7

Efficacy of a digital CBT program – Daylight

<https://doi.org/10.1002/da.23079>

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Digital CBT for children

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Digital therapeutics

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Websites:

Global Governance Toolkit for Digital Mental Health

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National Safety and Quality in Digital Mental Health Standards

<https://www.safetyandquality.gov.au/standards/national-safety-and-quality-digital-mental-health-standards>

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Chapter 8

Identifying clients at risk of treatment failure

<https://doi.org/10.1002/jclp.20108>

Websites:

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myOutcomes <https://myoutcomes.com>

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Wellify <https://wellify.com>

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Latest trends in wearable health technology

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Digital coaching

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Be Connected <https://beconnected.esafety.gov.au>

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iPad <https://www.apple.com/au/ipad>

Otter AI <https://otter.ai>

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Microsoft Teams <https://www.microsoft.com/en-au/microsoft-teams/log-in>

Cybersecurity – secure your data <https://www.cyber.gov.au/protect-yourself/securing-your-devices/how-backup-your-files-and-devices>

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Temerity Digital <https://www.temeritydigital.com.au>

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Chapter 13

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● ABOUT THE AUTHORS ●

Dr Brendan Meagher is the founder and principal clinical psychologist at Mind Health Care, a private psychology practice in Geelong, Australia. Brendan was the national chair of the Australian Psychological Society College of Clinical Psychologists from 2019 to 2021. He has received numerous awards for his contributions to the field of psychology, such as a fellowship from the Australian Psychological Society in 2019 and the Significant Contribution Award from the Australian Psychological Society College of Clinical Psychologists (Victoria) in 2023. Brendan is a thought leader on topics related to clinical psychology practice, particularly, the application of AI and digital technology to psychology practice. Brendan regularly posts content relevant to psychologists on LinkedIn. To follow Brendan: <https://www.linkedin.com/in/dr-brendan-meagher-b69b541a2/>



Tamara Cavenett is a renowned clinical psychologist and a leader in the health sector. She is a former president of the Australian Psychological Society and past chair of the APS College of Clinical Psychologists and has held board director roles at Mental Health Australia and the Adelaide Primary Health Care Network. Tamara has also held positions on numerous Australian State and Federal Department of Health advisory committees on areas such as workforce, primary care, NDIS and mental health. She has a proven track record of advancing mental health reform to ensure that evidence-based, innovative and person-centred care is at the heart of mental health policy. Tamara is a passionate advocate for digital technology's potential to have a transformative impact on mental healthcare, improving accessibility, affordability and clinical outcomes. With extensive experience as a practitioner and an approved supervisor of other psychologists, she regularly provides trusted commentary in the media across television, radio, podcasts and newspaper articles, where she imparts her professional insights and perspective on the latest updates and advancements in psychology.



● **APPENDIX OF ACRONYMS AND ABBREVIATIONS** ●

ADHD	Attention-deficit/hyperactivity disorder
AGI	Artificial general intelligence
AHPRA	Australian Health Practitioner Regulation Board
AI	Artificial intelligence
APA AEM	American Psychiatric Association App Evaluation Model
CBT	Cognitive behaviour therapy
CBT-I	Cognitive behaviour therapy for insomnia
CPD	Continuing professional development
dB	Decibel
DBT	Dialectical behaviour therapy
DTAC	Digital Technology Assessment Criteria
EMA	Ecological momentary assessments
EMDR	Eye movement desensitisation and reprocessing
FDA	US Food and Drug Administration
FIT	Feedback-informed treatment
GP	General practitioner
IAR-DST	Initial Assessment and Referral Decision Support Tool
IPT	Interpersonal therapy
MBC	Measurement-based care
MIND	M-Health Index and Navigation Database
NHS	National Health Service
NDIS	National Disability Insurance Scheme
NICE	National Institute for Health and Care Excellence
NSQDMH	National Safety and Quality in Digital Mental Health Standards

ORS	Outcome rating scale
PTSD	Post-traumatic stress disorder
ROM	Routine outcome monitoring
SRS	Session rating scale
ST	Schema therapy
VA	US Veterans Administration
VBC	Value-based care
VR	Virtual reality
WHO	World Health Organization

‘an indispensable guide’

Matt Berriman

**‘be an early adopter of this book –
you won’t regret it’**

Kaye Frankcom

Psychology practice is ripe for artificial intelligence (AI) and digital technology innovation, and we are on the cusp of a revolution in the delivery of mental healthcare services. AI and digital technology are about to break the mould of traditional mental healthcare services, and we will all benefit immensely. Psychologists will be liberated from what can be automated or accomplished by technology to do more complex and valuable work for their clients. Clients will be more likely to receive the right care at the right time in the right place.

Brendan Meagher and Tamara Cavenett take the reader on a journey exploring how and why this revolution is about to occur. The coming wave of AI and digital technology is good news. AI and digital technology will not replace psychologists. Rather, psychologists who use AI and digital technology will replace psychologists who do not because AI and digital technology will allow psychologists to better serve their clients.

The Tech-Savvy Psychologist is an essential and practical guide for psychologists wanting to integrate AI and digital technology into their practice. All psychologists can become tech savvy and deliver an optimal experience to their clients by combining the power of technology with the human touch.

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