Al Note-Taking.

Safely implementing new technology and an introduction to NovoNote













NovoPsych was founded in 2012.

Our mission is to help mental health clinicians use psychometrics and AI to improve client outcomes.

75,000

Clinicians using NovoPsych

40,000

Clients Assessed / Week

900

Practices

150

Psychometric Scales Available











Dr Ben Buchanan



NovoPsych CEO & Co-Founder
Clinical Psychologist
Board Approved Supervisor
Principal Psychologist, Foundation Psychology Victoria
Adjust Research Fellow, Monash University

Psychometric Scales and Al Scribe for Mental Health Practitioners in One Platform



- Access to Over 150 Assessments
- ✓ Instant Scoring and Metrics
- ✓ Graph Symptoms Over Time



- ✓ Al-Generated Progress Notes
- ✓ One-Click Session Notes
- ✓ Secure Data Storage

Activate Free Account

Trusted by 75000+ Mental Health Professionals

NovoPsych



Step 1

Access a vast library of over 150 validated psychological assessments to evaluate and monitor your clients' progress effectively.



Step 2

Send assessments to clients via email so they can complete on their device. Once complete results are instantly scored and sent back to you their clinician.



Step 3

Review results and track symptom trajectories over time with intuitive graphs, facilitating transparent discussions about improvement.

NovoNote



Step 1

Press "Record Session" during your session.

NovoNote works in the background to securely capture the important details, ensuring your focus remains on your patient, not paperwork.



Step 2

NovoNote generates comprehensive, clinical notes tailored to your preferred style. Quickly review, edit, or add any details to make the notes your own.



Step 3

With a single click, save your completed notes and seamlessly integrate them into your practice management system or patient health records.

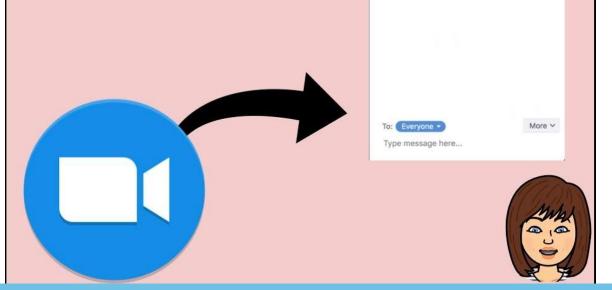
Summary

- 1. An overview of what Artificial Intelligence (AI) and technology in mental health setting generally.
- 2. Identify and manage the strengths and limitations of Al in note-taking.
- 3. Identify how AI note-taking can enhance efficiency, reduce administrative burdens, and improve clinical documentation quality.
- 4. We'll evaluate risks and recognise ethical implications.
- 5. Discuss best practices, including client consent.
- 6. Explore ways NovoNote can free up cognitive bandwidth, allowing practitioners to focus more fully on their clients during sessions.
- 7. Learn how to create custom templates



ZOOM CHAT BOX

Chat





Dr Carla Smyth, Research Fellow, Clinical Liaison, and Clinical Psychologist

Poll

Are you a current user of NovoPsych Psychometrics or NovoNote Al-Scribe?

If you do use an Al Scribe, how often do you use it?

What AI tools have you used for work?

Do you have any of the below concerns about the risk of using AI in mental healthcare?



NovoNote



Technology's Impact on Today's World

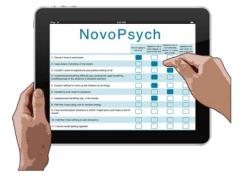


Impact of the internet on clinical practice

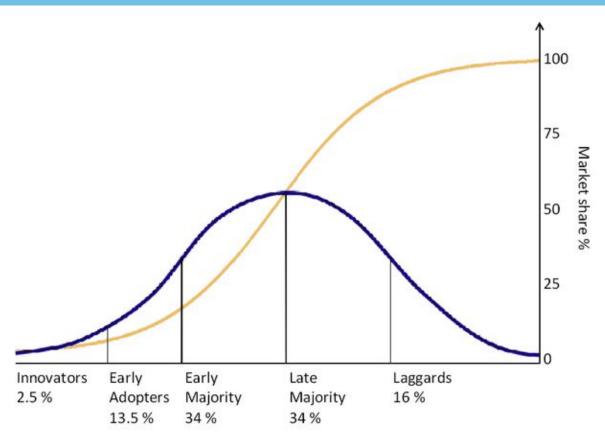






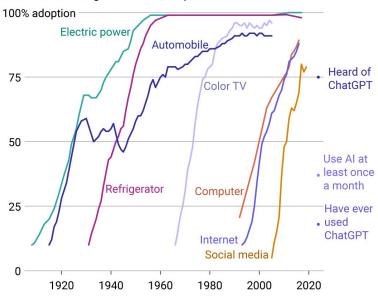


PSYCHOLOGY**TO*LS**



Modern technologies are quicker to be adopted

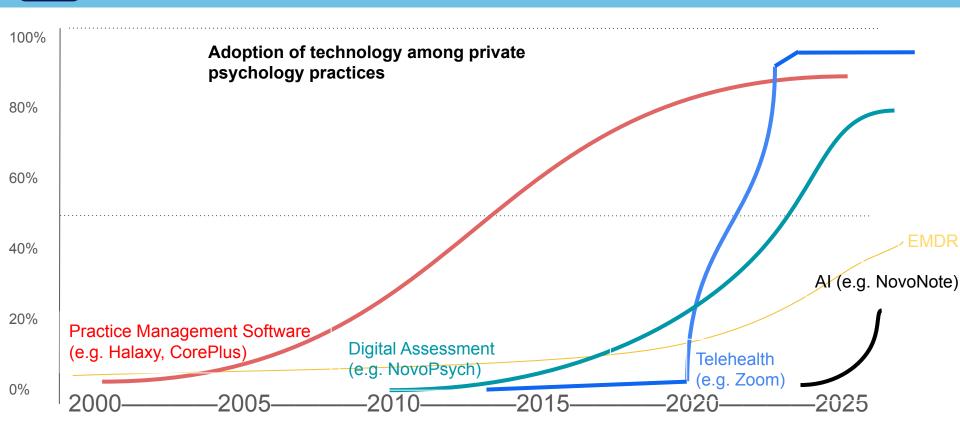
It took five decades for U.S. households to go from 10% adoption of electricity to 99%. In contrast, it took just 15 years for social media to go from 5% adoption to 79%.



Note: The 2023 survey results are for American adults, while the historical data are for American households.

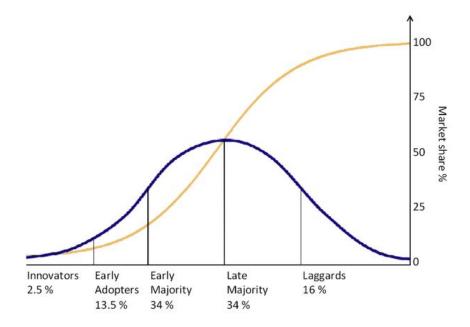
Data source: Our World in Data, Pew Research Center, YouGov

N NovoNote



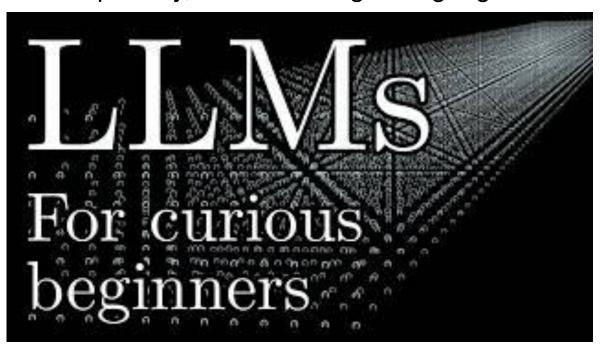
Poll

Where would you put yourself on the technology adoption curve generally, when a new technology comes along?



N NovoNote

What is artificial intelligence (AI)?
More specially, what is a Large Language Model?





Large Language Models (LLMS)



Released in November 2022, had one million users in the first five days.

NovoNote

The earliest chatbot was created in 1966 at MIT.
Called ELIZA, it is the earliest example of natural language processing program designed to simulate a conversation with a human, specifically emulating a Rogerian psychotherapist.

```
Welcome to
                    EFFFFF
                                    IIII
                                           777777
                                                     AAAAA
                    EE
                    EEEEE
                                     II
                                            777
                                                    AAAAAAA
                                                         AA
                                    IIII ZZZZZZ
                                                    AA
                                                         ΔΔ
 Eliza is a mock Rogerian psychotherapist.
 The original program was described by Joseph Weizenbaum in 1966.
 This implementation by Norbert Landsteiner 2005.
ELIZA: Is something troubling you?
YOU:
       Men are all alike.
ELIZA: What is the connection, do you suppose?
YOU:
      They're always bugging us about something or other.
ELIZA: Can you think of a specific example ?
YOU:
      Well, my boyfriend made me come here.
ELIZA: Is it important to you that your boyfriend made you come here ?
YOU:
      He says I'm depressed much of the time.
ELIZA: I am sorry to hear that you are depressed.
YOU:
      It's true. I am unhappy.
ELIZA: Can you explain what made you unhappy?
YOU:
```



NovoNote

Computers

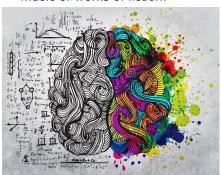
- Memory: Computers can store vast amounts of information and retrieve it almost instantaneously, far beyond human capacity.
- Maths: Performing complex mathematical operations with speed and precision.
- Repetitive Processing: Executing repetitive tasks consistently without fatigue.



IBM's Deep Blue beats humans 1997

Humans

- Pattern Recognition: Predictions and insights from patterns.
- Understanding Language:
 Understanding and generating language to facilitate seamless interactions.
- Learning and Adaptation: Learning from seeing examples of things, without explicit instruction.
- **Creativity:** Creating new works of art, music or works of fiction.

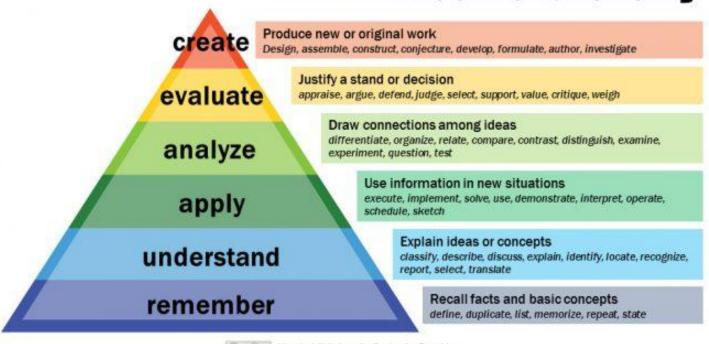


- Emotional Intelligence:
 Understanding and responding to complex emotional cues.
- Moral and Ethical Reasoning: Navigating situations that require subjective judgment and ethical considerations.
- Innovation: Generating original ideas and thinking outside the conventional paradigms.





Bloom's Taxonomy



NovoNote

[Submitted on 9 Oct 2024]

The Cognitive Capabilities of Generative AI: A Comparative Analysis with Human Benchmarks

Isaac R. Galatzer-Levy, David Munday, Jed McGiffin, Xin Liu, Danny Karmon, Ilia Labzovsky, Rivka Moroshko, Amir Zait, Daniel McDuff

There is increasing interest in tracking the capabilities of general intelligence foundation models. This study benchmarks leading large language models and vision language models against human performance on the Wechsler Adult Intelligence Scale (WAIS-IV), a comprehensive, population-normed assessment of underlying human cognition and intellectual abilities, with a focus on the domains of VerbalComprehension (VCI), Working Memory (WMI), and Perceptual Reasoning (PRI). Most models demonstrated exceptional capabilities in the storage, retrieval, and manipulation of tokens such as arbitrary sequences of letters and numbers, with performance on the Working Memory Index (WMI) greater or equal to the 99.5th percentile when compared to human population normative ability. Performance on the Verbal Comprehension Index (VCI) which measures retrieval of acquired information, and linguistic understanding about the meaning of words and their relationships to each other, also demonstrated consistent performance at or above the 98th percentile. Despite these broad strengths, we observed consistently poor performance on the Perceptual Reasoning Index (PRI; range 0.1–10th percentile) from multimodal models indicating profound inability to interpret and reason on visual information. Smaller and older model versions consistently performed worse, indicating that training data, parameter count and advances in tuning are resulting in significant advances in cognitive ability.

Subjects: Artificial Intelligence (cs.AI)
Cite as: arXiv:2410.07391 [cs.AI]

(or arXiv:2410.07391v1 [cs.AI] for this version) https://doi.org/10.48550/arXiv.2410.07391

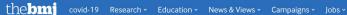
.

https://novopsych.com.au/pricing/

Summary of WAIS-IV results: Source: arXiv:2410.07391 (Oct 2024)

	Humans		AI	
Scale	Percentile	Descriptor	Percentile	Descriptor
Verbal Comprehension (VCI)	50	Average	98	Very Superior
Perceptual Reasoning (PRI)	50	Average	99	Very Superior
Working Memory (WMI)	50	Average	99.5	Superior
Processing Speed (PSI)	50	Average	NA	NA
Full Scale IQ	50	Average	99	Very Superior
			Open AI O3 model. \$3000 per question	

Al and LLMs fail in strange ways!



Research » Christmas 2024: Could We Start Again, Please?

Age against the machine—susceptibility of large language models to cognitive impairment: cross sectional analysis

BMJ 2024; 387 doi: https://doi.org/10.1136/bmj-2024-081948 (Published 20 December 2024) Cite this as: BMJ 2024;387:e081948

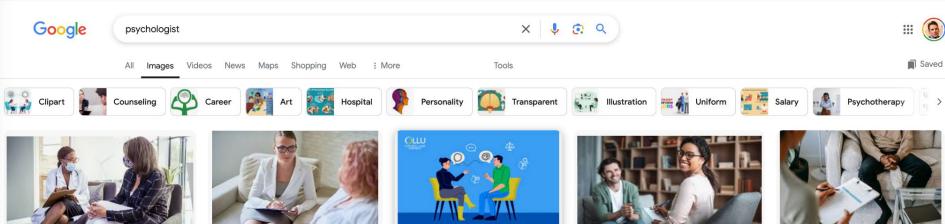
Cognitive assessment of Al models

How leading large language generative AI models respond to The Montreal Cognitive Assessment test



Darker red boxes show greater errors as a percentage of maximum scores. Hover boxes to show scores and click them to show details of responses







Psychiatrist vs. Psychologist: Which ...



Monash Online - Monash University What does a psychologist do? - Monash ...



Our Lady of the Lake University Top 10 Psychologist Skills You Must Have



UTS Online - University of Technology Sydney a Psychologist in Australia ...



Ω Insight Body and Mind Exploring Psychologists' Varied Roles ...



JCU Online - James Cook University Career Path to Become a Psycholo...

US News Money - USNews.com



Rowan Center for Behavioral Med... What Does a Psychologist Do?...



T Breakfree Psychology Services Seeing a Male Psychologist



CareerAddict How to Become a Psychologist (Caree...



W Verywell Mind 20 Psychologist Specialties and Jo...



Psypathy Clinical Psychologists - Psypathy



O PeopleSense







Monash Online - Monash University

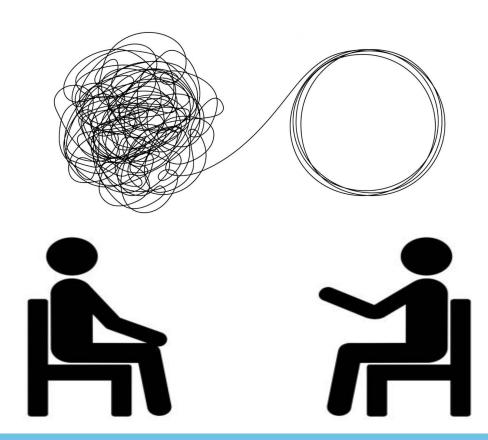


National University

Why we take notes?

To help our client To protect ourselves **Memory**: So we remember the content **Legal Documentation:** Accurate records provide a factual account of therapeutic to help us orientate ourselves for the interactions, serving as evidence in legal next session. situations to demonstrate appropriate care and **Reflection:** Writing and reviewing adherence to professional standards. session notes allows therapists to reflect **Ethical Accountability:** Maintaining thorough on discussions and insights. notes helps ensure that the therapist's actions align with ethical guidelines. Track progress: Detailed notes enable **Risk Management:** Documenting any therapists to monitor a patient's discussions related to potential risks, such as development over time. harm to self or others, enables therapists to demonstrate that appropriate assessments and interventions were conducted.















Effortless

Press record, and NovoNote automatically transforms your patient conversations into accurate and detailed clinical notes or summaries.

Personalised

NovoNote adjusts to your style when you review and edit notes. Your comprehensive notes are ready in moments, improving the quality of notes as well as saving you time.

Integration

With a single click, copy your completed notes into your practice management system or patient health records.







Security Protocols and Compliance

Industry-Leading Compliance Standards

NovoNote is compliant with HIPAA, AHPRA, and the Australian Privacy Principles (APP), ensuring that all personal and patient data is handled with transparency and care. Read our Privacy Policy here.

Data Encryption and Protection

All data is encrypted both in transit (TLS 1.2 or higher) and at rest (AES-256 encryption). Our security protocols ensure that no unauthorised individuals can access your sensitive information. Read about our security protocols here.

Role-Based Access Control (RBAC)

Clinicians can set up role-based access controls, so team members only access the data and functions they need, ensuring patient confidentiality and operational efficiency.

Secure Cloud Infrastructure

NovoNote operates on secure servers located in **Australia** that meet ISO 27001 and SOC 2 Type II standards. All data is stored safely, and automatic backups ensure it remains protected even in unforeseen circumstances.

No Data Used for Al Model Training

We use established Large Language Models (LLMs) and have data processing agreements that ensures data is not used for secondary purposes. Personally identifiable information is redacted to ensure LLMs never have access to identifiable information.

No Audio Recordings Saved

Audio recordings are **never saved**. Rather, audio is immediately converted into a redacted text based transcript. Only the **session summary** is retained as part of the patient's file, and our default settings are for transcripts to be deleted after use.

Downloadable Resources

The **NovoNote Taker Consent Form** provides transparency about how your sessions are documented. It outlines how NovoNote converts session audio into clinical summaries, ensures no audio is stored, and complies with industry standards such as HIPAA, AHPRA and APP.

The **NovoNote Fact Sheet** is designed to give clients a clear understanding of how NovoNote supports clinical documentation. It explains the purpose of the tool, how consent is managed, and reassures patients that their privacy is protected. Clinicians can provide this fact sheet to clients to foster transparency and trust.



Client Consent

Both the Australian Psychological Society (APS) and the Australian Health Practitioner Regulation Agency (AHPRA) emphasise the necessity of obtaining informed consent from clients when integrating Artificial Intelligence (AI) into psychological practice.

AHPRA's Guidance:

AHPRA underscores that when using AI tools, especially those involving personal data—such as AI scribing tools that record private consultations—practitioners must secure informed consent from clients. This practice ensures compliance with privacy laws and maintains ethical standards.

APS's Perspective:

The APS highlights that incorporating AI into psychological services necessitates a reevaluation of informed consent processes. Clients should be thoroughly informed about the use of AI technologies, the nature of data collection, storage practices, and the implications for their confidentiality.

Does the transcript make up part of the client file?

The Psychology Board of Australia published its Code of Conduct on 25 November 2024, (which will come into effect from December 2025). It provides more guidance in relation to record keeping at Clause 8.5. It is extracted below: 8.5 Client records

Maintaining clear and accurate client records is essential for continuing quality service provision and good governance. The form and content of your records will depend on the nature of the services you provide, your work setting and other factors such as legal and organisational requirements.

Effective practice nevertheless includes that you:

- a. keep accurate, up to date, factual, objective, legible and accessible records that report **relevant details** of the service provided in a form that can be understood by other practitioners and colleagues,
- b. ensure that records are held securely and are not subject to unauthorised access. This includes protecting the privacy and integrity of electronic records (see also section 3.3 Privacy and confidentiality)
- c. ensure that your records show respect for clients and associated parties, and do not include demeaning or derogatory remarks,
- d. ensure that records are **sufficient** to facilitate continuity of the service provided,
- e. make records at the time of events or as soon as possible afterwards,
- f. promptly facilitate the transfer or management (including disposal) of client information in accordance with relevant legislation when requested by clients, or when closing or relocating a work setting, and
- g. retain client information consistent with relevant legislative or organisational requirements, but at least:
 - i. seven years since the last entry was made in adult clients' records; and
 - ii. after the 25th birthday of clients who were younger than 18 years when the last entry was made in their records





Write messy notes in session \rightarrow Record key information into clinical record \rightarrow



Discard written notes







3 Full transcript created NovoNote makes Clinician edits Transcript discarded draft summary summary and decides information to enter into final clinical record Transcription is about 90% This is only a draft and Make it yours, and NovoNote default = 3always needs to be accurate months reviewed



NovoNote Demo



AI-Powered Case Notes: Recording Sessions

PROS

Passive Integration

All operates in the background, capturing the entire conversation without disrupting the flow of the consultation, allowing you to maintain eye contact and human connection.

Comprehensive Documentation

As the entire conversation is captured, recording has the potential to provide a more comprehensive, detailed and accurate record compared to the dictation approach.

Time Savings

A clinical case note summary is generated automatically, saving time otherwise spent manually creating a case note from scratch or dictating after the consultation.

CONS

Accuracy and Interpretation

While AI tools are rapidly improving in transcription accuracy, there's still a chance for errors, meaning that clinicians need to review and edit the generated notes carefully.

Potential For Missed Nuance

While recording captures spoken details, it can no integrate information that is not explicitly discussed, such as non-verbal cues or the clinician's professional judgment, which is important clinical detail for case notes.

Privacy Considerations

Recording patient conversations requires strict adherence to privacy laws like APP, HIPAA and GDPR. Patients must be informed and give consent before using recording tools.

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AI-Powered Case Notes: Using Dictation

PROS

Clinician Control

Clinicians specify exactly what information is included in the notes, ensuring that only relevant data forms part of the health record and that key clinical insights are captured.

Privacy and Consent

As dictation occurs after the consultation and involves the clinician summarising rather than directly recording the patient, it does not require explicit patient consent in the same way that live recording does. However, it's still essential to handle all patient information with the same level of confidentiality and to be aware of any specific guidelines within your practice or jurisdiction.

Integration of Clinical Judgement

Important additional details, such as clinical judgement and observations, are integrated during dictation and into the written summary from the outset, rather than requiring the clinician to integrate this after a recording has been transcribed

CONS

Disruption to Patient Interaction

As Al is used post-consultation, the clinician must still pause during the consultation to engage in manual notetaking. This may disrupt patient engagement and the natural flow of the consultation.

Timing

Though dictation reduces the need for manual note-taking during the consultation, additional time is required afterwards to perform the dictation and then refine notes. While dictation may still have advantages compared to typing notes, it isn't as fast as recording the entire session.

Disruption to Patient Interaction

Because dictation relies on clinician memory and collection of notes during the consultation, there's a risk of omitting key information.

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Session Note Templates

Comprehensive Psychology Note

This note template covers many aspects of client presentation, using the following titles: Current Presentation, Past Medical & Psychiatric History, Mental Status Examination, Session Content, Obstacles, Setbacks and Progress, Interventions, Risk Assessment and Management, Session Summary, Next Steps.

First Session

This initial session template is designed for psychologists, psychiatrists and other mental health clinicians conducting thorough assessment appointments with general mental health clients. It covers a comprehensive range of topics including presenting problems, current functioning, psychiatric history, developmental and social history, risk assessment, and mental state examination. The template provides a formulation based on the 5P and biopsychosocial models.

Clinical Supervision Template

A template for individual supervision, in the context of psychology or mental health care practice.

EMDR session

This Eye Movement Desensitization and Reprocessing structured template is for standardised documentation of EMDR sessions, aligned with the 8-phase protocol. It also provides a clear record of progress and therapeutic outcomes.



Letter Templates

GP Letter - Progress Update or Mental Health Care Plan Review

Generate a GP letter after psychological treatment with a summary of the presenting issue, treatment, goals, progress and plan for future management. This template will work best when the content of a session explicitly addresses these matters.

Therapeutic Letter for Client

This template creates a warm, affirming summary of a therapy session to give to a client. It can be used after each session to reinforce insights, validate progress, offer encouragement, and summarise a session. It is designed as a draft of a letter that can be sent to the client.

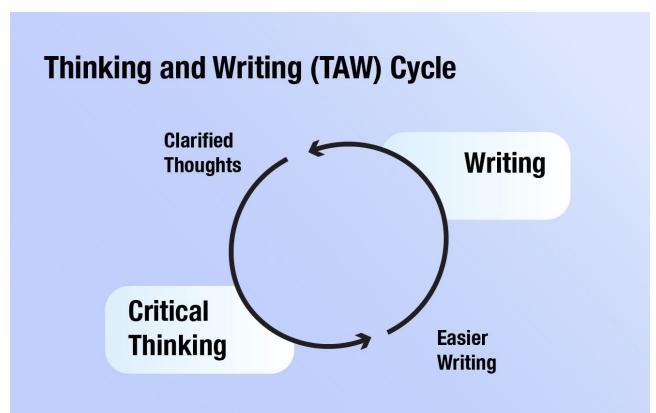
Write you own prompt.

When crafting AI prompts for NovoNote, clinicians can enhance the quality and relevance of generated content by following these guidelines:

- 1. **Define the Objective Clearly**: Specify the desired outcome of the prompt. For example, "Summarise the client's presenting issues discussed in today's session."
- 2. **Specify the Desired Format**: Indicate the preferred structure for the output. For example, "Provide the summary in bullet points."
- 3. **Use Clear and Concise Language**: Avoid ambiguity by using straightforward language. For instance, "List coping strategies discussed during the session."
- 4. **Iterative Refinement**: Review NovoNote's output and adjust the prompt as needed to improve accuracy and relevance.



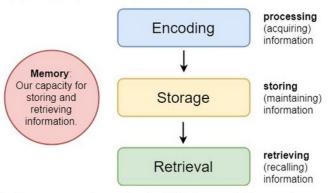
If notes are semi-automated, clinicians will need to be **intentional** with their reflection on clients.



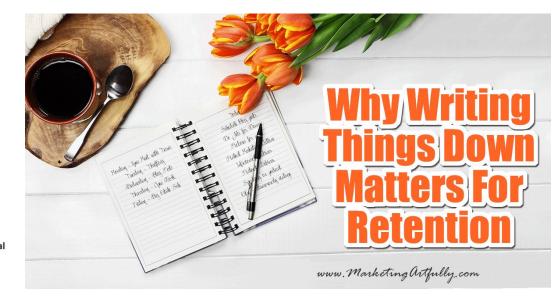


Memory

How do we form memories?



We **encode** what we pay attention to, otherwise it fades in seconds. Then, our short-term memory lets us work with information long enough to **store** it in long-term memory. **Retrieval** involves getting information from long-term memory and using it.





Automation Bias

Automation bias refers to the human tendency to over-rely on automated systems, often accepting their outputs without sufficient critical evaluation, even when those systems may be flawed or incorrect.





Investigation into the use of ChatGPT by a Child Protection worker

Events and education

Search P

For individuals

In December 2023, the Department of Families, Fairness and Housing (**DFFH**) reported a privacy incident to the Office of the Information Commissioner (**OVIC**), explaining that a Child Protection worker had used ChatGPT when drafting a Protection Application Report (**PA Report**). The report had been submitted to the Children's Court for a case concerning a young child whose parents had been charged in relation to sexual offences.

Despite its popularity, there are a range of privacy risks associated with the use of generative artificial intelligence tools such as ChatGPT. Most relevant in the present circumstances are risks related to inaccurate personal information and unauthorised disclosure of personal information.

N

NovoNote



marketoonist.con

NovoNote Best Practice

- Can use on Laptop, Phone or iPad.
- A laptop with Chrome is most reliable
- Place device in position where it can hear clearly
- Check device settings so it does not go to sleep
- Telehealth (Zoom, Google Meet)
 - If your telehealth software is within a browser, open a separate session of the browser to run NovoNote (rather than just a separate tab)
 - Do not use headphones (sorry, we are working on it)
 - Ensure NovoNote is picking up both sides of the conversation
- Save and finalise your notes into separate practice management software.

What's next for NovoNote?

- Connect multiple sessions to write letters and reports
- Expand the template library
- Integrate NovoPsych Psychometric results into session notes
- Function for digitally assistant reflective practice



Free tier ends in March

Free Pro For Individual Practitioners Psychometrics & Al Note-Taking Free Monthly, or \$300 paid annually Activate Free Account Access to Over 150 Assessments Access to Over 150 Assessments Advanced Psychometrics & Instant Scoring Advanced Psychometrics & Instant Scoring Graph Symptoms Over Time ✓ NovoNote Al Scribe Smart Dictation Access All Mental Health Note Templates Access All Mental Health Note Templates 30 Notes per Month with up to 50 Clients Activate Free Account Activate 15 Day Free Trial *Unlimited 'til March 2025. Higher plans below

Pro Plan \$25 monthly or 300 annually
Access to over 150 psychometric assessments for use with unlimited clients, 50 monthly administrations and 50 $^{\circ}$ Al-generated session notes. $^{\circ}$ Unlimited Al Notes until March 2025.
Pro Plus with Insights \$60 per month or 720 annually
100Al-generated notesand100monthlypsychometricassessments.Includesoutcomedataanalytics'lnsights'
Platinum \$99 per month or 999 annually
Unlimited AI-generated notes and unlimited psychometric assessments. Includes data analytics 'Insights'. Suitable for individual practitioners only.
Practice Plan \$20 per Practitioner
EnjoyNovoPsychPsychometricswithaccesstoover150psychometricassessments.Unlimitedclients, UnlimitedAssessments.
Practice Plan + NovoNote \$30 per Practitioner
Have all your team in one account with access to all the benefits of NovoPsych Pro which includes NovoPsych Psychometrics and NovoNote Al Scribe. (Minimum 2 practitioners)
Practitioner in Training Free
$Available\ to\ individual\ Provisional\ Psychologists\ or\ other\ practitioners\ in\ training, not\ in\ association\ with\ employer\ or\ training\ institution.\ Total\ 20\ clients\ and\ 20\ monthly\ assessments\ included.$
Enterprise Plan From \$2000 per month

For large providers and government organisations. Contact us today to discuss possibilities.

Pro Plan \$25 monthly or 300 annually

What NovoPsych Users Say

See how mental health professionals have transformed their practice with NovoPsych.

I'm so impressed with NovoNote! The way it organises information, especially around interventions and progress, is incredibly efficient. It makes managing my notes so much easier.

\$\$\$\$\$\$



Dr Robyn BrownClinical Psychologist

NovoNote is amazing! I love how much easier it makes my workflow. It's so simple to use. I can focus more on my patients and less on paperwork. I absolutely love it!



Emma Vaughan Clinical Psychologist





I really love using NovoPsych and NovoNote. My clients love that it enables me to be more present with them in the session and provide them a summary and next steps so they can continue to keep working in between sessions!



Deborah Ann FlowerPsychologist, Sydney
Australia

NOVOPSYCH.COM.AU



Using AI in Mental Healthcare Responsibly

DO



Seek patient consent if an AI tool will directly capture their data (such as voice-to-text)



Apply your clinical judgement to Algenerated documentation



Ensure data privacy by using tools compliant with healthcare privacy



Limit data usage to what is necessary to avoid over-collection



Use AI to streamline note-taking and augment clinical decision-making



Incorporate updates in AI technology, privacy standards, and ethical guidelines



Regularly audit and update Al systems to maintain accuracy and security

DON'T



Record patient sessions without patient consent



Rely solely on AI without human oversight



Use tools that do not demonstrate compliance with privacy regulations



Collect or save excessive patient



Rely on AI as a diagnostic tool or substitute for clinical judgment

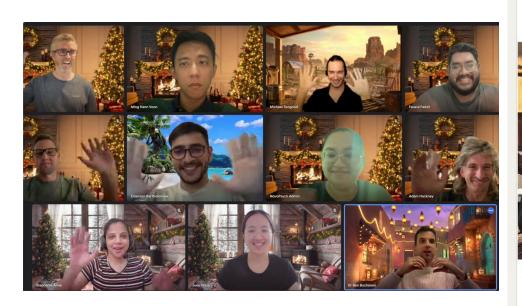


Ignore updates to ethical and legal quidelines



Ignore ongoing maintenance

N NovoNote





Dr Ben Buchanan · You

NovoPsych helps mental health services use psychometric science to im... 6d · 🕥

A great time connecting with psychologists using NovoPsych Psychometrics at the Australian Clinical Psychology Association Conference



CC David Hegarty and 38 others

5 comments · 1 repost

Reactions

















Psychometric Scales and Al Scribe for Mental Health Practitioners in One Platform



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Dr Carla Smyth, Research Fellow, Clinical Liaison, and Clinical Psychologist

Questions info@novopsych.com

Dr Ben Buchanan



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