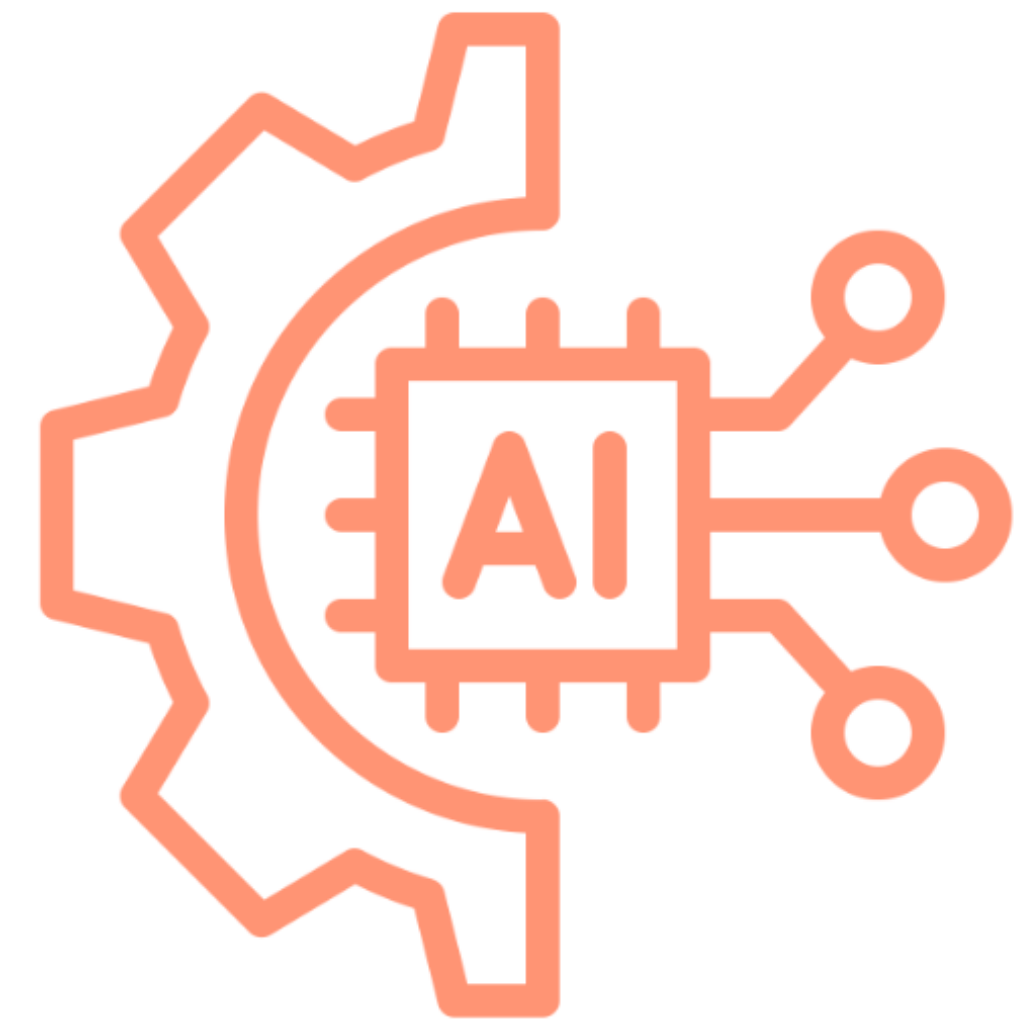


Learn to control AI before it controls you:

Increased Efficiency in Research,
Clinical Practice, and Education



Talk of AI is Everywhere



One core question: Are they coming to replace us?

Takeaway #1: **AI is already here**

AI Definition

- + Computational tasks commonly associated with intelligent beings

"The AI Effect"

- + Moving goalposts of what is "real thinking"
- + Computation quickly gets un-magical



EXPIRATION
DATE **01/01/26**

"But psychotherapy is a 'very' human...
... so we're safe from robotic uprising of the 2030's!"

- Every therapist in the 2020s



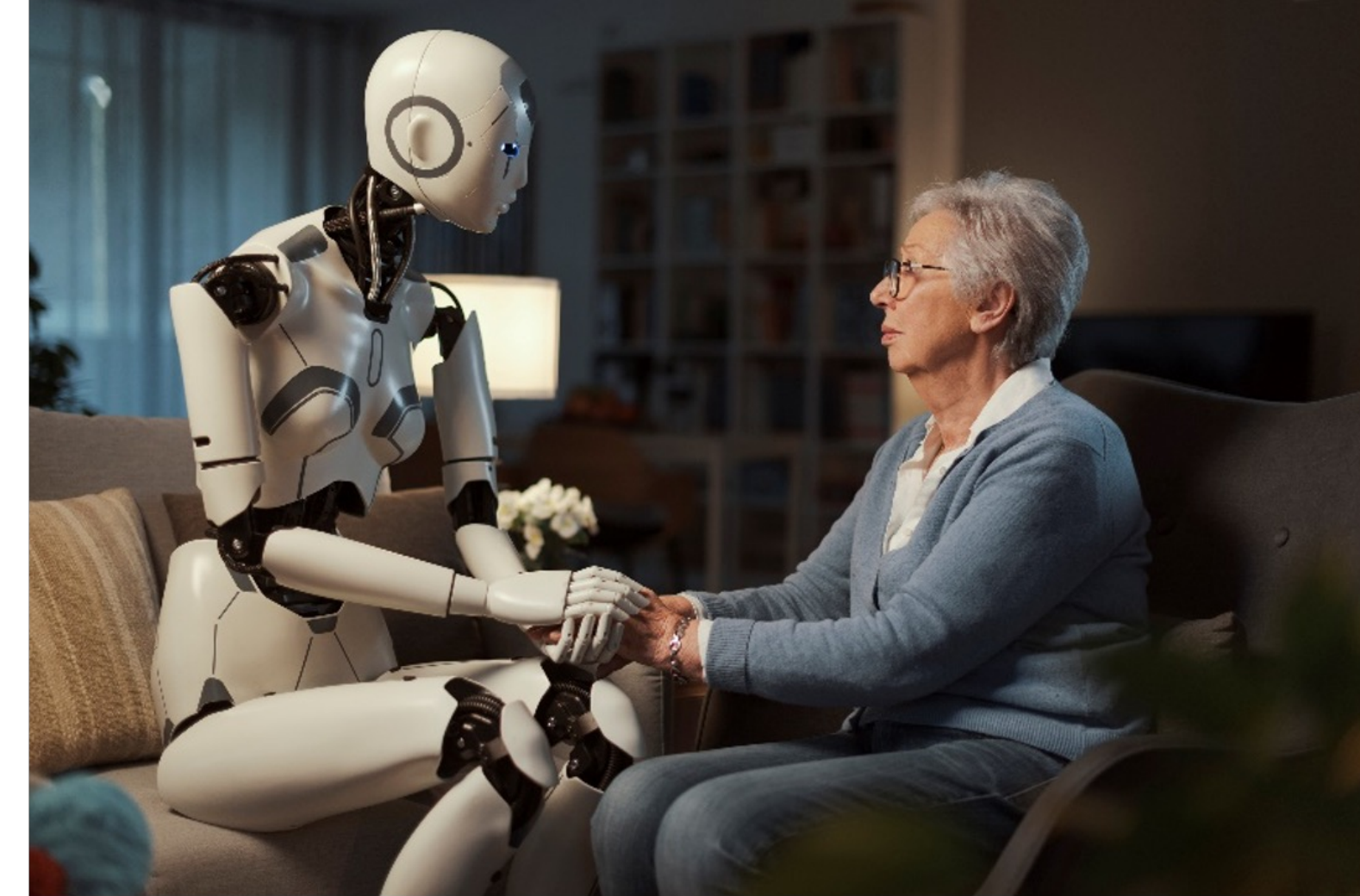
AI Taking Over Psychotherapy?

It is taking over some tasks already:

- Salesforce
- Electronic medical records
- Scheduling
- Dictation
- Writing partner
- Exposure stimuli generator

It's targeting low-severity populations

- Clinical chatbots
- Self-help apps



But will this tech
take my job?



Takeaway #2: AI can be a clinical teammate (not just a tool)

AI to enhance HI

+ think of as "augmented intelligence)

AI with capacity to interact:

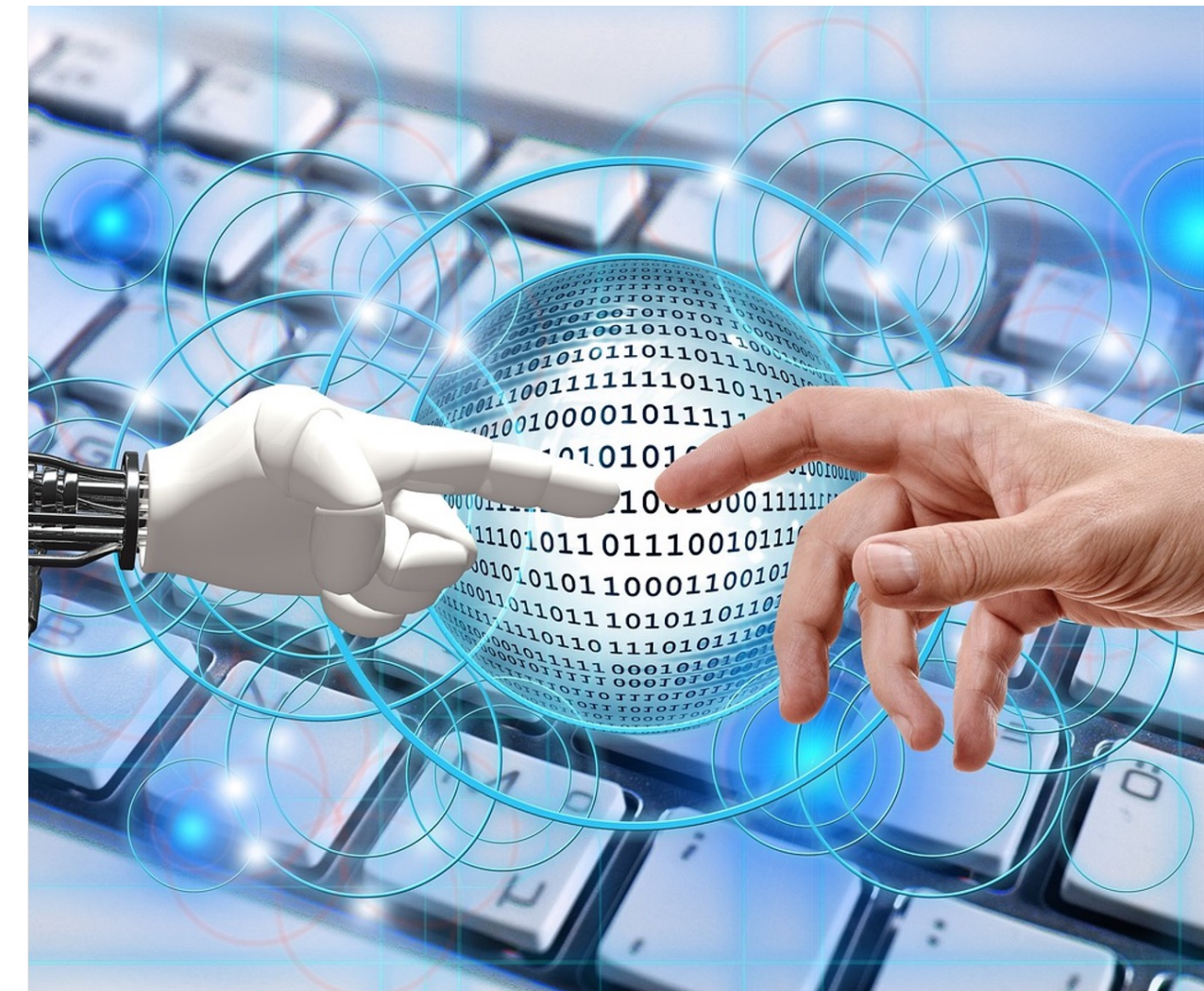
+ "the machine influences me"

+ "I influence the machine"

Big questions

+ how do we integrate?

+ how do we ethically divide responsibilities?



Takeaway #3: We can all participate in clinical AI development

Clinical AI tools are coming with or without you

Only you can determine

- + is it useful?
- + is it useable?

AI developers need our expertise

- + clinical psychology
- + I/O psychology

What is it good at?

Improve writing

E.g., literally everything

Summarize information

E.g., articles, qualitative responses, generate abstracts, bios

Structure information

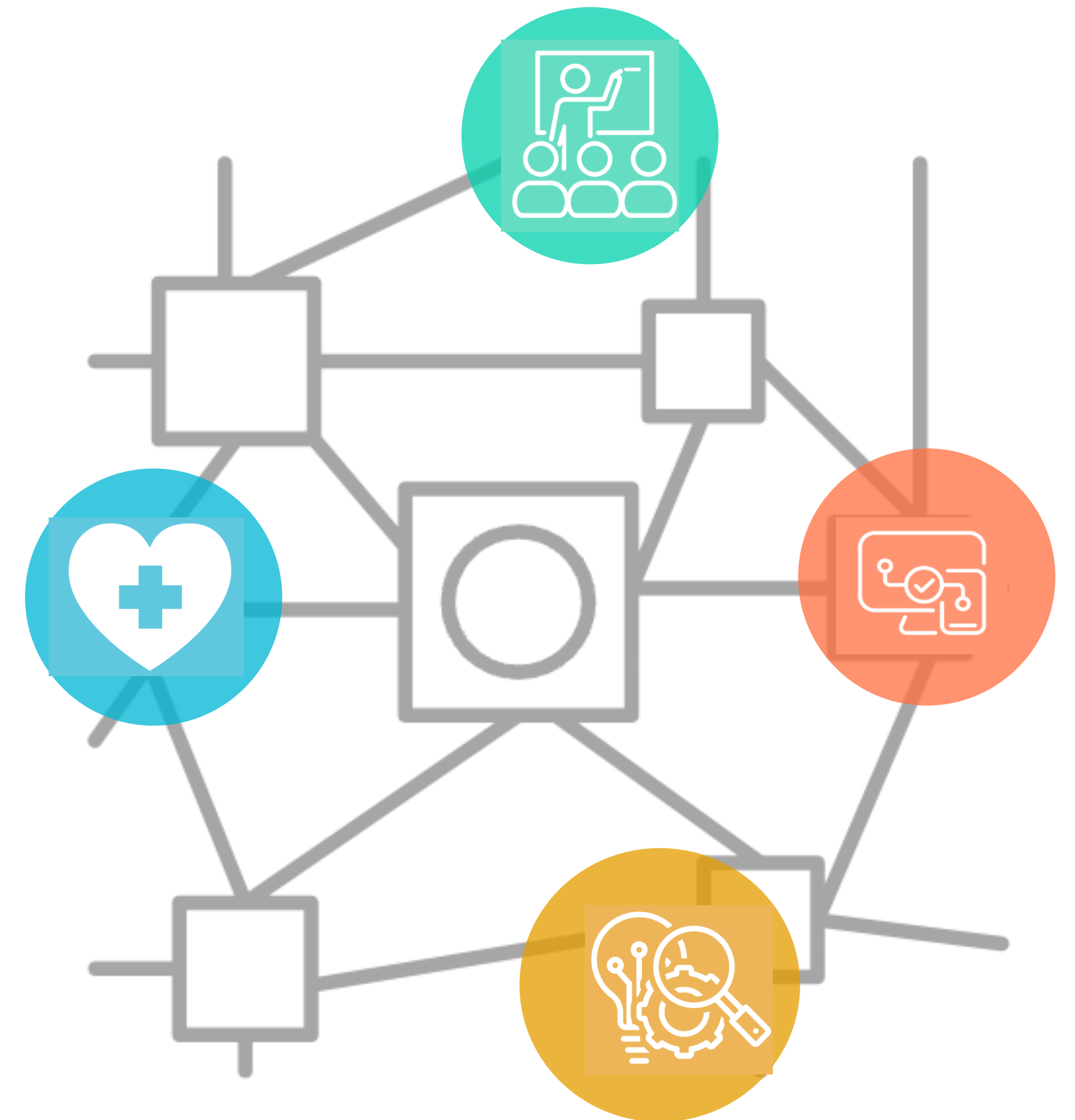
E.g., donor reports, recruitment flyer, initial evaluations, 504 recommendations, write progress notes and clinical documentation

Tailor information

E.g., IRB consents, lay summaries, therapy concepts w/in patient interest

Idea generation

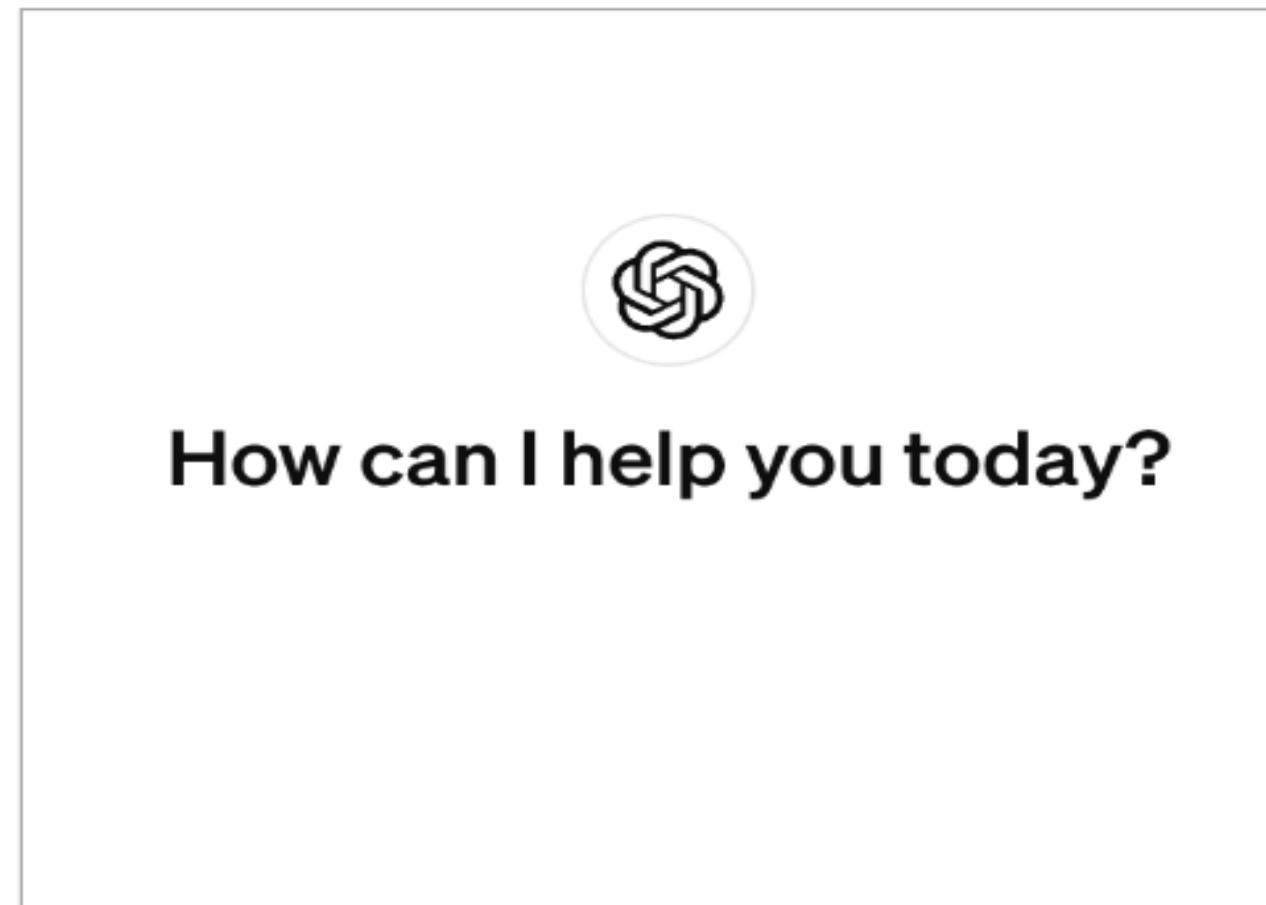
E.g., conference themes/titles, group therapy activities, exposure content



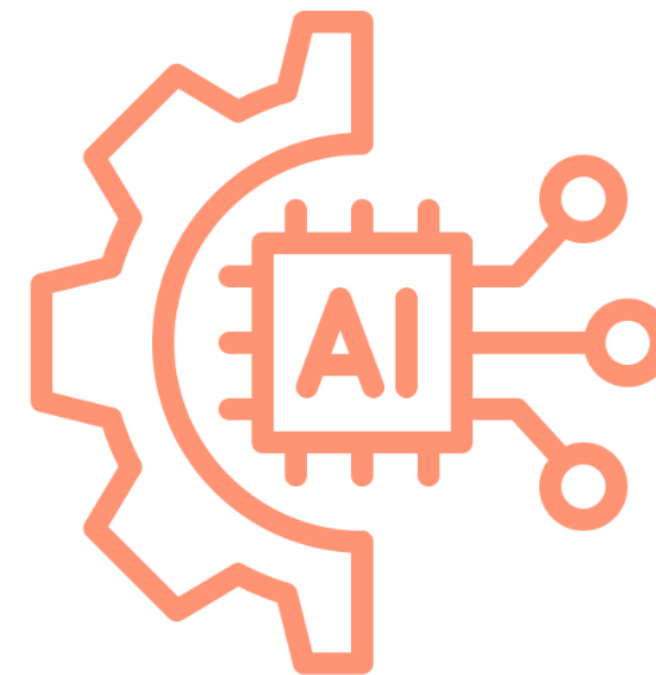
What's out there?

Generative AI

chatGPT



Microsoft Copilot :



Source-Grounded AI

≡ **NotebookLM** **EXPERIMENTAL**

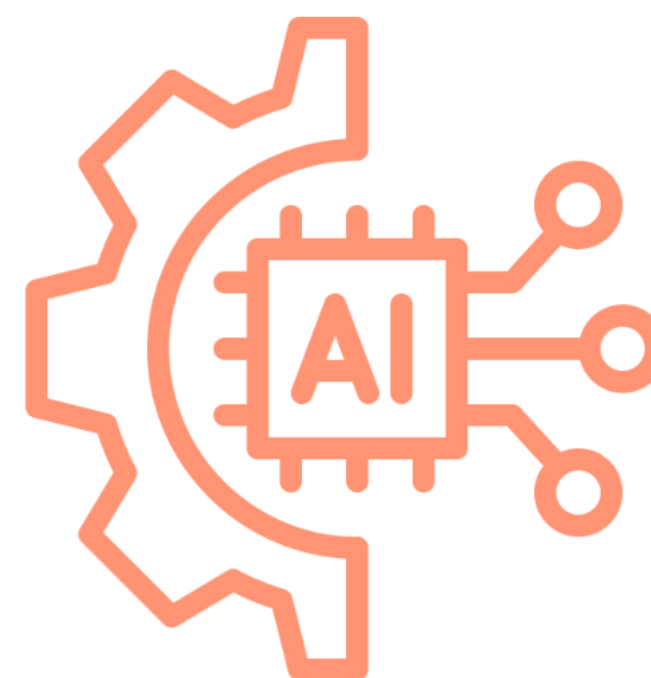
“Ground” the language model in your notes and sources.

Virtual research assistant that can summarize facts, explain complex ideas, and brainstorm new connections — all based on the sources you select.

Non-Clinical Transcription & Summary Services AI



Summarizer app



AI-powered **provider tools**

E.g.,

Doximity GPT

Charting

Progress Notes

- 🗨 Note Template for Family M...
- 🗨 Assessment and Plan
- 🗨 ESRD Dot-Phrase Creation
- 🗨 Dermatitis Dot-Phrase Crea...
- 🗨 Physical and Neurological E...
- 🗨 Endocrinology Progress Note
- 🗨 Note Template for Knee Ex...
- 🗨 Note Template for Otolaryn...
- 🗨 SOAP Note

Doximity GPT

A HIPAA-compliant medical writing assistant that can compose chart notes, grant proposals, odes to being post-call—basically any writing task you can think of.

Powered by GPT-4o

What does a trained Psychiatry do
Describe to a patient with a fourth grade education what a doctor ...

Draft a brief procedure note template in Psychiatry
Draft a brief procedure note template for a common procedure in ...

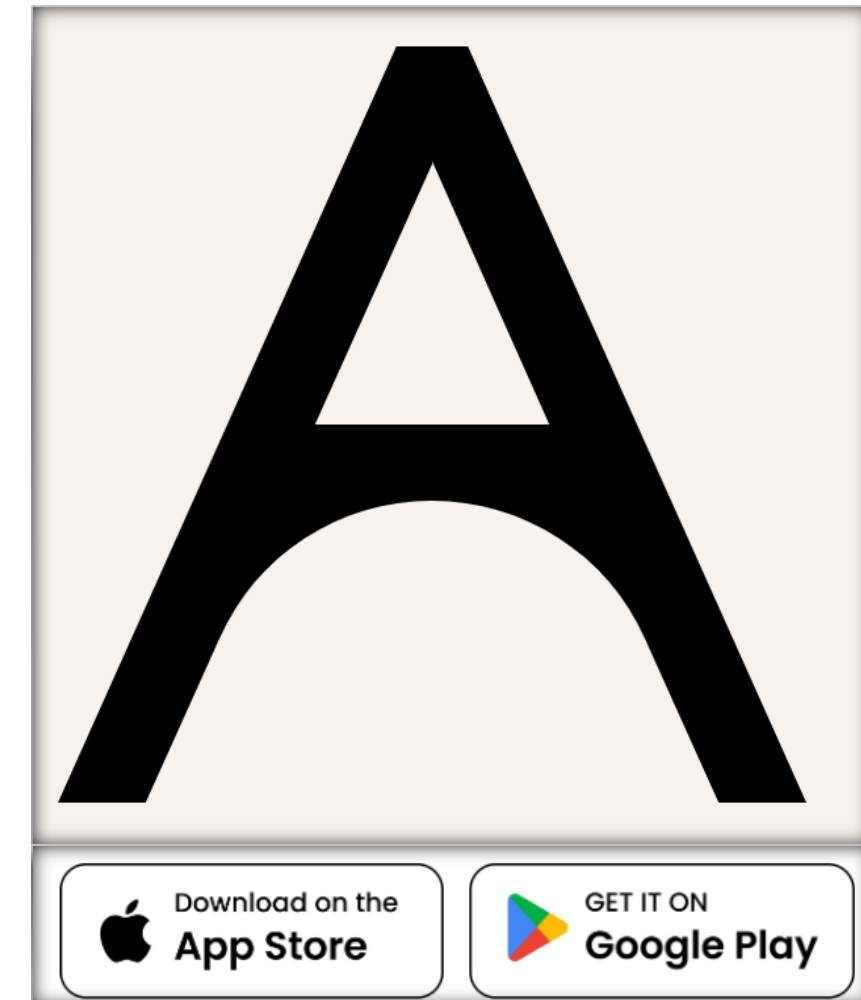
Example: **Abridge**

Provider **DO NOT RECOMMEND**

- Excels at summarizing what is said to create a brief, efficient, generic note
- Trained to recognize medical terms, but not relevance to current conversation/complaint
- Assessment/Plan section is created independently of the HPI section, makes inferences/assumptions based on other information in the EMR
- **Not specialty-specific**
 - Does not identify/document diagnostic criteria (e.g. SIGECAPS)
 - Unclear whether it was trained to differentiate “depression” from MDD/MDE
- Physical exam must be narrated - no ability to record a MSE

Patients **RECOMMEND**

- Ambient recording of medical visit
- Summarizes visit, including medication instructions
- Can make available to family members



Purported Features of AI-powered **provider tools**



Speech Recognition

ASR technology transforms spoken language into written text



Session Content Analysis

Natural language processing models sift through conversations to identify key points and themes



Documentation Automation

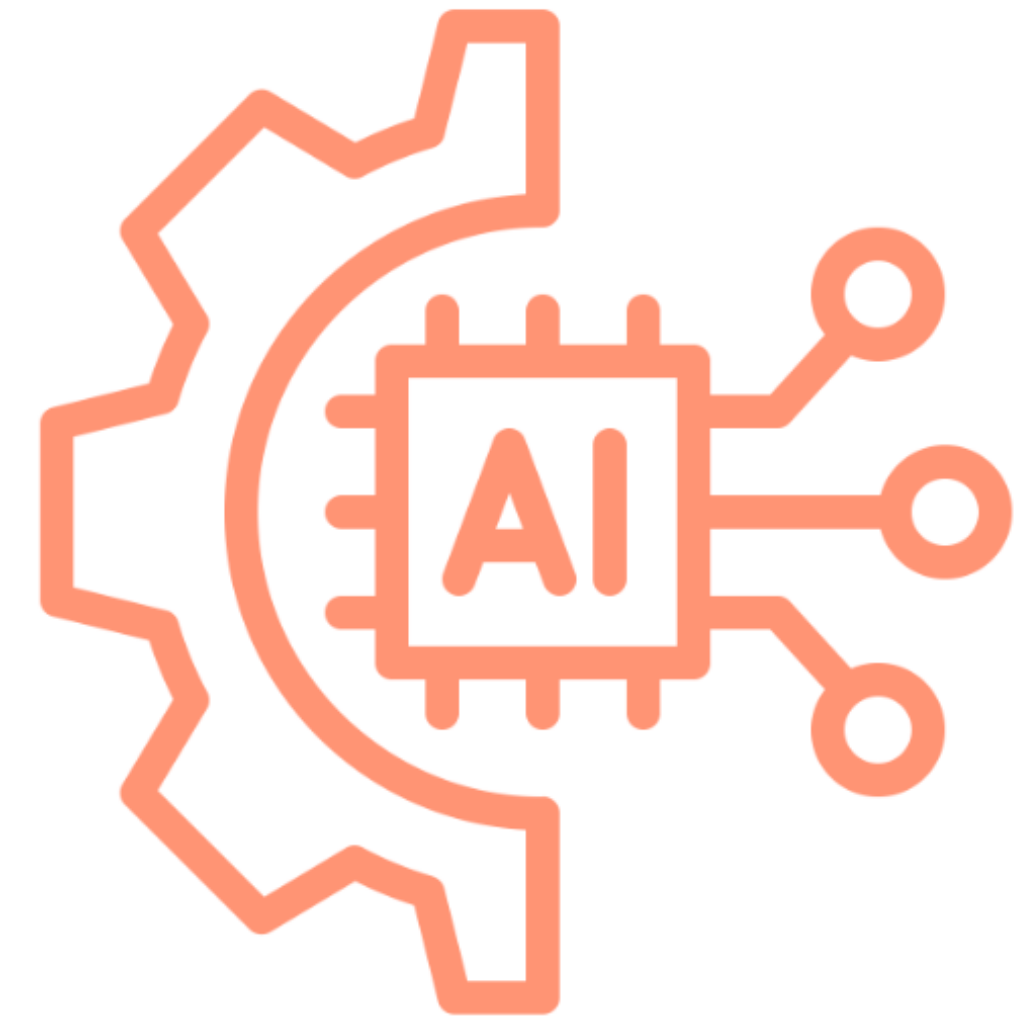
Natural language understanding models interpret information to draft compliant, relevant notes



Session Intelligence

Identify key themes, therapy techniques, and dialogue rations to generate session insights

Prompt Engineering + Custom GPTs



Prompt Engineering

Be Clear and Specific

"Tell me about the latest OCD research" VS. "Summarize the key findings of the past 10 years in OCD research regarding improving implementation of exposure and response prevention."

Provide Context

"What are some helpful homework tasks for a patient with OCD?" VS. "From the perspective of exposure and response prevention, provide a list of 10 exposures for a patient who has intrusive thoughts about running over a pedestrian."

Iterate and Refine

+ First prompt: "What is the prevalence of OCD?" > The prevalence of Obsessive-Compulsive Disorder is about 2% of the global population."

+ Prompt refined for explainability: "Provide five estimates of adult OCD in the US and provide references."

Use Structured Prompts

+ "Provide a 10 pros and 10 cons for incorporating mindfulness into exposure therapy of OCD."

Incorporate Constraints

+ "In 300 words or less, using APA style, write an abstract for the following paper

Prompt Engineering

Make me a photorealistic picture of golden retriever running alongside a minivan. (Stimuli for Harm OCD)



Make me a photorealistic picture of an attractive Caucasian man with severe acne on his face. (Stimuli for Contamination OCD)



Custom GTP = one that you train with *your* content

I'd like your help in using information collected in an interview to write a psychiatric history of present illness. Your first task will be to understand my writing style based on examples that I give you. After that, we'll create some content. To start, please say GO AHEAD and I will paste examples of my writing. Keep saying GO AHEAD and I will paste new examples. When I am done I will say FINISHED. At this stage, please do not do anything except confirm that you have saved the writing style.

As I continue to provide examples of my writing style, please do not do anything except confirm that you have saved the writing style.

Confirmed. I have saved the provided examples of your writing style.

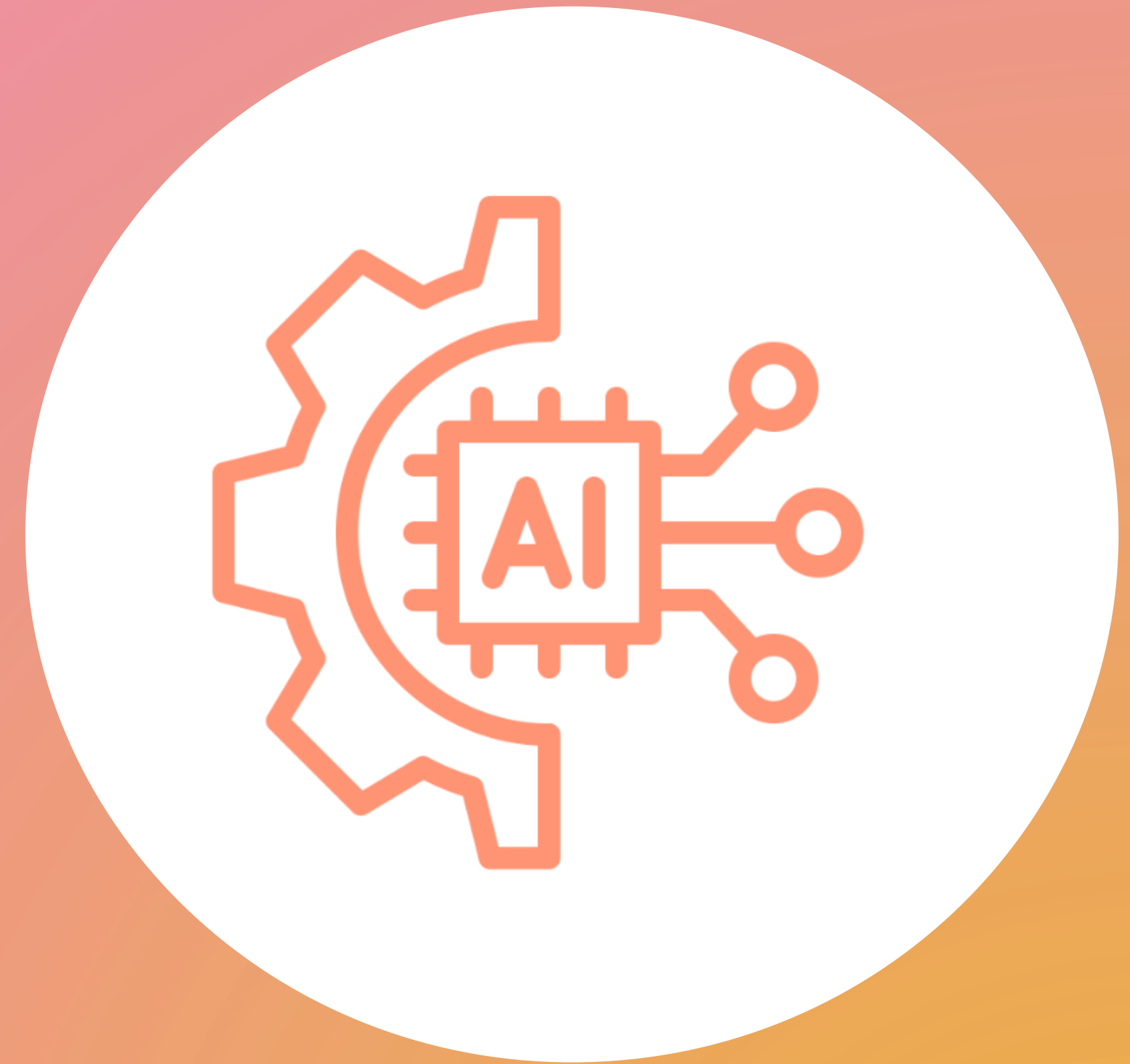
Custom GTP = one that you train with *your* content

ok, now I'm going to enter some notes that I'd like you to re-write in Andrea's writing style for the history of present illness



Certainly! Please provide the notes you'd like me to rewrite in Andrea's writing style for the history of the present illness.

Routine Research Tasks



Generating Templated Grant Materials

Sample Plan Description	NIH Institute or Center	Tags Filter
Clinical and/or MRI data from human research participants	NIMH	human_subjects controlled_access imaging video multimedia clinical_research phenotypic
Genomic data from human research participants	NIMH	genomics human_subjects controlled_access phenotypic
Genomic data from a non-human source	NIMH	genomics animal_models
Secondary data analysis	NIMH	human_subjects controlled_access secondary_data_analysis
Human genomic data	NHGRI	controlled_access genomics
Technology development	NHGRI	technology genomics
Human clinical and genomics data	NICHD	clinical_research genomics controlled_access
Gene expression analysis data from non-human model organism (zebrafish)	NICHD	rna animal_models

The sample Data Management and Sharing Plan below is for a proposal conducting non-human basic research. It is one of [four examples](#) provided by NIDDK.

NIDDK Example Data Management and Sharing Plan – Non-Human Basic Research

Element 1: Data Type:

A. Types and amount of scientific data expected to be generated in the project:

This project will produce clinical measures, phenotypic characteristics, microscopic imaging, and transcriptomic gene expression profiles from mouse models of nonalcoholic steatohepatitis (NASH)-driven hepatocellular carcinoma (HCC). Data will be collected for up to 50 mice generating a total of three datasets. The following data files will be produced during the course of this project:

- Clinical and Phenotypic data including animal sex, body weight, specific organ weights, age and developmental stage, tissue profiled, and disease outcome.
- RNA sequencing datasets including normalized transcript and gene level expression counts. This dataset will also include a number of quality control metrics including total reads, clipped reads, sequencing platform, and any other relevant metrics that arise during the project.
- Light and confocal microscopy images of formaldehyde-fixed paraffin-embedded tissue slices.

B. Scientific data that will be preserved and shared and the rationale for doing so:

All three datasets described in A will be preserved and shared through public repositories.

C. Metadata, other relevant data, and associated documentation:

- A detailed methods section outlining the collection of each scientific data generated with this work will be provided. Any step-by-step protocols developed in this project will be shared as a supplementary protocol document. Specifications about instruments and technologies used to produce this data will also be provided.
- All steps in the data analysis pipelines and workflows will be characterized and documented on GitHub.
- A data dictionary describing all phenotypic and clinical variables collected will be provided in MS Excel format and uploaded to the repository with the associated dataset.
- A set of well-established standards and minimum metadata checklists exist for various aspects of transcriptomics. Minimum Information about a high-throughput nucleotide SEQuencing Experiment (MINSEQE) describes the minimum metadata that is

Generating Templated Grant Materials

That is an example of an NIH Data Management and Sharing Plan. Using that format please write plan for scientific data from a non-human primate basic research project will be managed and shared in accordance with NIMH guidelines. The data types are single unit neural recordings from the amygdala and striatum from two nonhuman primates. The data include raw LFP recordings, spiking neurons, and accompanying behavioral files across multiple recording sessions consisting of 200GB per session. The custom code to analyze the data will be written in MATLAB and Python and will be posted to a public Github account.



Memory updated

Here is a Data Management and Sharing Plan (DMSP) for your non-human primate basic research project, following the format and guidelines of the NIH/NIMH:

Element 1: Data Type

A. Types and Amount of Scientific Data Expected to Be Generated: This project will generate electrophysiological and behavioral data from two non-human primates, recorded across multiple sessions from the amygdala and striatum. Each recording session will produce approximately 200GB of data, with the following data types:

- **Raw Local Field Potential (LFP) recordings:** Time-series data capturing the electrical activity from multiple electrodes in the amygdala and striatum.
- **Spike Data:** Discrete action potentials recorded from individual neurons, including spike timestamps and waveform features.
- **Behavioral Data:** Session-specific behavioral task performance, including event markers, task outcomes, and relevant experimental conditions.

B. Scientific Data to Be Preserved and Shared, and the Rationale for Doing So: All raw and processed electrophysiological data (LFP, spike data), along with the associated behavioral data, will be preserved and shared. This will enable other researchers to reproduce the findings and conduct secondary analyses.



Element 3: Standards

- **Electrophysiological data** will follow commonly used neuroscience standards (e.g., the Neurodata Without Borders [NWB] format or similar standardized file structures).
- **Behavioral and metadata annotations** will use structured formats for clear interpretation. Annotations will follow behavioral experiment standards where applicable (e.g., task timing events).
- File formats will include `.hdf5/.mat` for neural data, `.csv/.txt` for behavioral data, and `.m` or `.py` for custom code.

Assisting with Peer Review of Research Articles

Initial Draft: Read, React, Write, **Submit**

“constructively critical leaning towards dispassionate”

Remarks to the Author:

In this manuscript, Butler et al. analyses the activity of frontal cortex neurons during an economic decision task, in which the value-relevant information was presented in 4 distinct locations on a computer screen. The monkeys were allowed to freely fixate the information before indicating a choice by moving a joystick. The monkeys were tested in two versions of this task. One in which the information was sequentially revealed by removing a mask (SEQ) and on in which all 4 visual cues were presented simultaneously (SIM). The main findings of the author were: (1) Behavioral analysis showed that in the SIM condition, but not the SEQ one, choice was influenced by information that was not directly fixated. (2) Activity in ACC reflected the value information of a cue before it was fixated (pre-saccadic) and reflected value-related information of nearby non-fixated cues. This activity pattern was only found in ACC, but not in OFC, VMPFC, or LPFC. Together, these findings support the conclusion that under 'normal' viewing conditions, when value-related information is available through peripheral vision, the process of translating visual information to value preferences is partially parallel (information from outside of the fovea is integrated into the value estimation) and partially serial (sequential shifts of overt attention focus on specific information that has a stronger effect on the value estimation).

The role of attention in decision-making and the potentially sequential consideration of options and their attributes in decision-making, as opposed to a parallel consideration of available information, is a very important and timely topic. This paper makes some important

contr... conceptual... the analysis.

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doi: 10.1016/j.neuroimage.2011.08.041

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authors want to simply report that ACC reflects the value of upcoming saccade targets, the

Word Count

Statistics:

Pages 4
Words 2,010
Characters (no spaces) 10,721
Characters (with spaces) 12,744
Paragraphs 1
Lines 152

Include footnotes and endnotes

Close



The affective tone of this review is *constructively critical*, leaning towards *dispassionate*. The reviewer acknowledges the importance of the topic and the manuscript's potential contribution, noting that "this paper makes some important contributions" and describing the findings as "satisfying and much more interesting" when interpreted correctly. However, they express reservations about the manuscript's novelty, conceptual interpretations, and methodology, which "strongly reduce" their enthusiasm.

The reviewer raises detailed concerns, including references to prior literature that could affect the paper's contribution to novelty, misalignment in figure labeling, and the need for additional data presentations and analyses. The use of phrases such as "serious shortcoming of scholarship" and "glaring problem" indicates that the reviewer believes there are significant issues with the manuscript, but they are still offering suggestions on how to improve it. Overall, the tone remains focused on addressing perceived gaps in the research while not dismissing the value of the work.

Assisting with Peer Review of Research Articles

Final Draft: Read, React, Write, Refine with AI Assistance, **Submit**



Here's a more concise version of the review with clearer bullet points outlining the major concerns:

Remarks to the Author:

This manuscript investigates neural activity in the frontal cortex during an economic decision task where monkeys freely fixate value-relevant information across two task versions: sequential (SEQ) and simultaneous (SIM) presentations. The study offers interesting insights into the role of peripheral vision and attention in decision-making, but several concerns limit its impact.

Major Concerns:

1. **Lack of Novelty:**

- The manuscript overlooks a substantial body of literature showing neuronal activity in areas like SEF, LIP, and FEF that reflects the value of upcoming saccade targets well before the saccade (e.g., Chen et al., 2015; So et al., 2010). This undermines the novelty of the claim that ACC encodes pre-saccadic value information.
- The introduction and discussion need to address this literature more thoroughly and clarify how the findings add to existing knowledge.

2. **Inadequate Interpretation of Results:

- The manuscript's interpretation of the first saccade is reflective of the neural activity before the saccade, which suggests it is not a true reflection of the neural activity during the saccade.

3. **Misleading Data Interpretation:

- The author's data suggest that ACC's activity is reflective of the neural activity during saccades, and fixation periods.

4. **Overstated Conclusions:

- Some of the conclusions may weaken the overall impact of the study, particularly the smaller saccades.

Minor Concerns:

Word Count

Statistics:

Pages	2
Words	444
Characters (no spaces)	2,496
Characters (with spaces)	2,938
Paragraphs	22
Lines	53

Include footnotes and endnotes

Close

“Professional and constructively critical”



The affective tone of the shorter review is *professional and constructively critical*. It provides clear and direct feedback while maintaining a neutral, matter-of-fact tone. The phrasing is straightforward, focusing on the issues and suggesting areas for improvement without being overly harsh or dismissive. There's an emphasis on precision and clarity, which helps convey the critique in a balanced and objective way. While it highlights significant weaknesses, the tone remains respectful and focused on enhancing the manuscript rather than diminishing its value.



Professional editors at high impact journals prefer rigorous, concise, and clear affectively neutral reviews.

Using AI Tools to Peer Review Yourself (Google Notebook LM)

The screenshot displays the Google Notebook LM interface. On the left, a sidebar shows the 'NotebookLM' logo with an 'EXPERIMENTAL' tag, a 'Sources' section with a plus icon, and a list of sources including 'Bandit_Neuron_R4_man...' with a PDF icon and a checkmark. The main content area is titled 'Hogeveen et al. 2022 Revised Manuscript' and features a 'Help me create' section with buttons for 'FAQ', 'Study Guide', 'Table of Contents', 'Timeline', and 'Briefing Doc'. Below this is a 'Summary' section with a paragraph of text. To the right, an 'Audio Overview' section includes a play button, a progress bar at 06:11 / 17:27, and social sharing icons. Underneath are 'Suggested questions' with three prompts. At the bottom, there is a 'View Chat' button, a text input field with '2 notes' and 'Start typing...', a right arrow button, and a 'Notebook guide' link. A disclaimer at the bottom states: 'NotebookLM may still sometimes give inaccurate responses, so you may want to confirm any facts independently.'

Using AI Tools to Peer Review Yourself (Google Notebook LM)

The screenshot displays the Google Notebook LM interface. The top navigation bar includes the NotebookLM logo (marked as EXPERIMENTAL), the document title "Hogeveen et al. 2022 Revised Manuscript", and utility buttons for Settings, Share, and a user profile. On the left sidebar, the "Sources" section shows a PDF document "Bandit_Neuron_R4_man..." selected. The main content area, titled "Weaknesses:", contains a list of three points. The second point, "Absence of Causal Manipulation", is highlighted with a red rounded rectangle. Below the text, a chat interface is visible with buttons for "Summarize", "Suggest related ideas", "Create study guide", "Create outline", and "Combine to note". A text input field contains "2 notes" and "Start typing...", with a "Close Chat" button on the left and a "Notebook guide" link on the right. A disclaimer at the bottom states: "NotebookLM may still sometimes give inaccurate responses, so you may want to confirm any facts independently."

NotebookLM EXPERIMENTAL

Hogeveen et al. 2022 Revised Manuscript

Sources

Select all sources

Bandit_Neuron_R4_man...

Weaknesses:

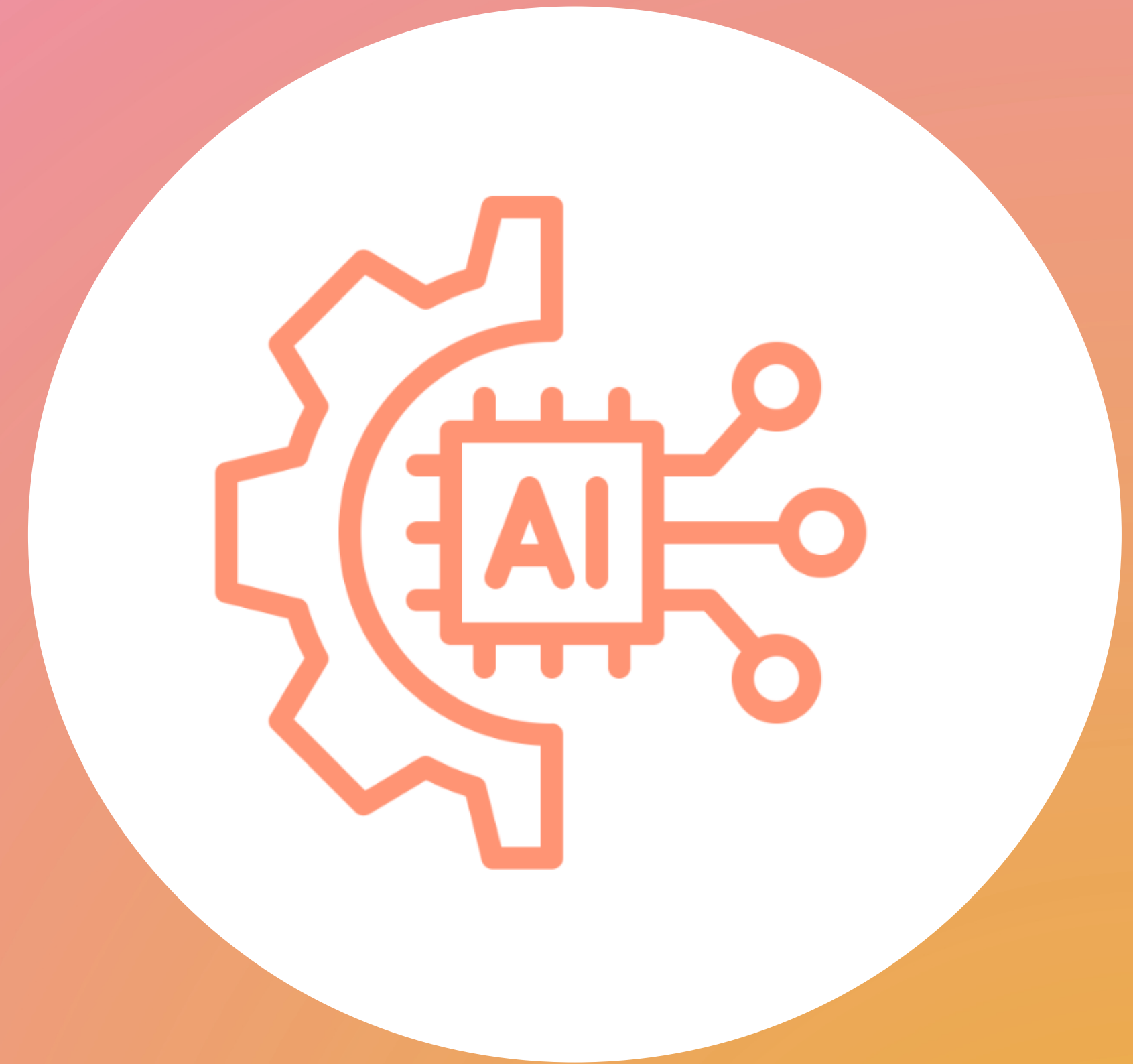
- **Limited Scope in Species Comparison:** While the study investigates both humans and monkeys, the neural data primarily stems from human fMRI. Direct comparisons of neural activity between species are lacking, which limits the conclusions that can be drawn about the conservation of neural mechanisms [1-3]. Further research involving comparative neuroimaging or electrophysiology in both species would strengthen these claims.
- **Absence of Causal Manipulation:** The study primarily relies on correlational evidence from fMRI. While this approach identifies brain regions whose activity correlates with specific aspects of explore-exploit decisions, it cannot establish causality. Future studies employing techniques like transcranial magnetic stimulation (TMS) could be valuable in determining whether the observed neural activity is necessary for these decisions.
- **Lack of Individual Difference Exploration:** The manuscript focuses on group-level analyses of explore-exploit behavior and neural activity. Exploring individual differences in these processes, perhaps relating them to personality traits like novelty seeking, could offer valuable insights into the heterogeneity of decision-making strategies and their neural substrates.

Summarize Suggest related ideas Create study guide Create outline Combine to note

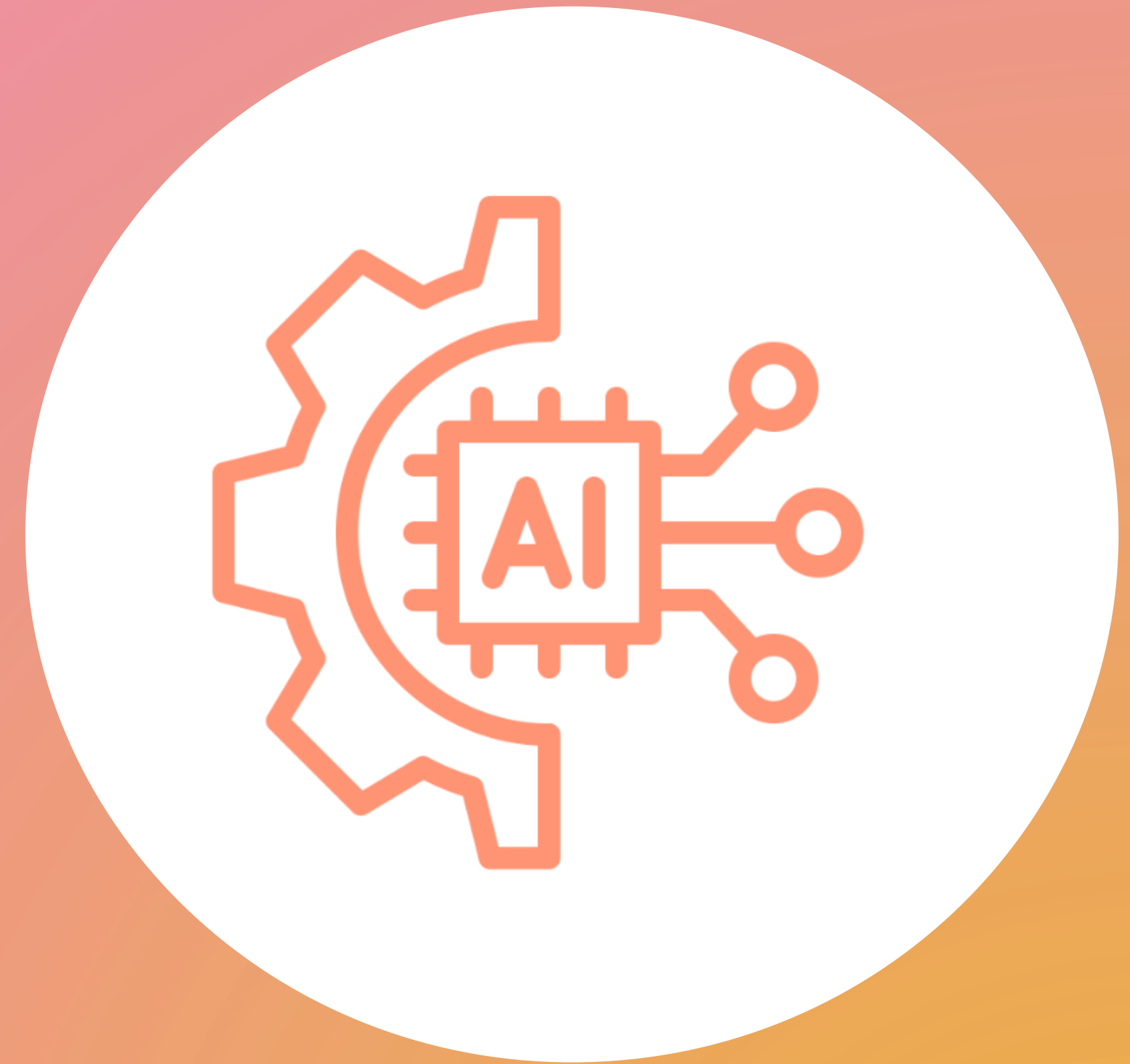
Close Chat 2 notes Start typing... * Notebook guide

NotebookLM may still sometimes give inaccurate responses, so you may want to confirm any facts independently.

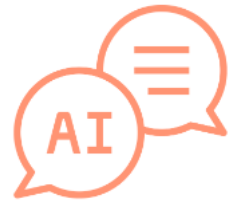
Education Admin Tasks



Clinical Admin Tasks



Example



Prompt: My patient was denied a power scooter by her insurance provider. Please help me draft an appeal letter.”

July 10th, 2024

|
To Whom It May Concern,

Dear [Recipient's Name],

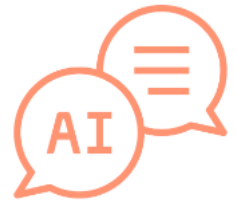
I am writing this letter in support of [Patient's Name]'s need for a power wheelchair. As [his/her] healthcare provider, I have been closely involved in [his/her] care and am aware of the challenges [he/she] faces due to heart failure and dyspnea on exertion.

[Patient's Name] has been managing significant symptoms of heart failure, which include dyspnea on exertion (DOE). Despite using a cane for support during ambulation, [he/she] continues to experience significant limitations in mobility and functional independence. The use of a cane has not adequately alleviated [his/her] symptoms of DOE, and [he/she] remains at risk for exacerbation of symptoms with increased physical activity.

Based on [Patient's Name]'s medical history and current condition, it is evident that a power wheelchair would greatly enhance [his/her] ability to engage in daily activities and improve [his/her] quality of life. A power wheelchair will provide [him/her] with the necessary support and assistance to move safely and independently, thereby reducing the strain on [his/her] cardiovascular system and minimizing the risk of exacerbating [his/her] heart failure symptoms.

I believe that providing [Patient's Name] with a power wheelchair is medically necessary to optimize [his/her] mobility, mitigate symptoms of dyspnea on exertion, and promote [his/her] overall well-being. I recommend that [he/she] be evaluated for a power wheelchair by your team

Example



Prompt: You are a clinical psychologist. draft a letter for 504 accommodations for a 13-year-old female who needs to wear noise cancelling headphone in class for overstimulation and to have a female staff member present for any make up tests that occur outside of class time



Subject: Request for 504 Accommodations for [Patient's Name]

Dear [School Administrator's Name],

I am writing to formally request 504 accommodations for [Patient's Name], a 13-year-old student in your [Grade] grade. [Patient's Name] is under my care as a clinical psychologist and has been diagnosed with [Diagnosis, e.g., sensory processing disorder, anxiety].

Due to [Patient's Name]'s condition, they experience significant overstimulation from noise. This can lead to anxiety, difficulty concentrating, and emotional distress. To mitigate these challenges, it is essential that [Patient's Name] be permitted to wear noise-canceling headphones during class time and other school activities.

Additionally, [Patient's Name] may require additional support when taking make-up tests outside of regular class time. To ensure a comfortable and supportive environment, I request that a female staff member be present during these sessions. This will help [Patient's Name] feel more at ease and able to focus on the task at hand.

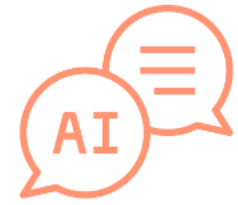
I believe that these accommodations are reasonable and necessary to enable [Patient's Name] to access education and participate fully in school activities. Thank you for your time and consideration of this request.

Sincerely,

[Your Name]

Clinical Psychologist

Example

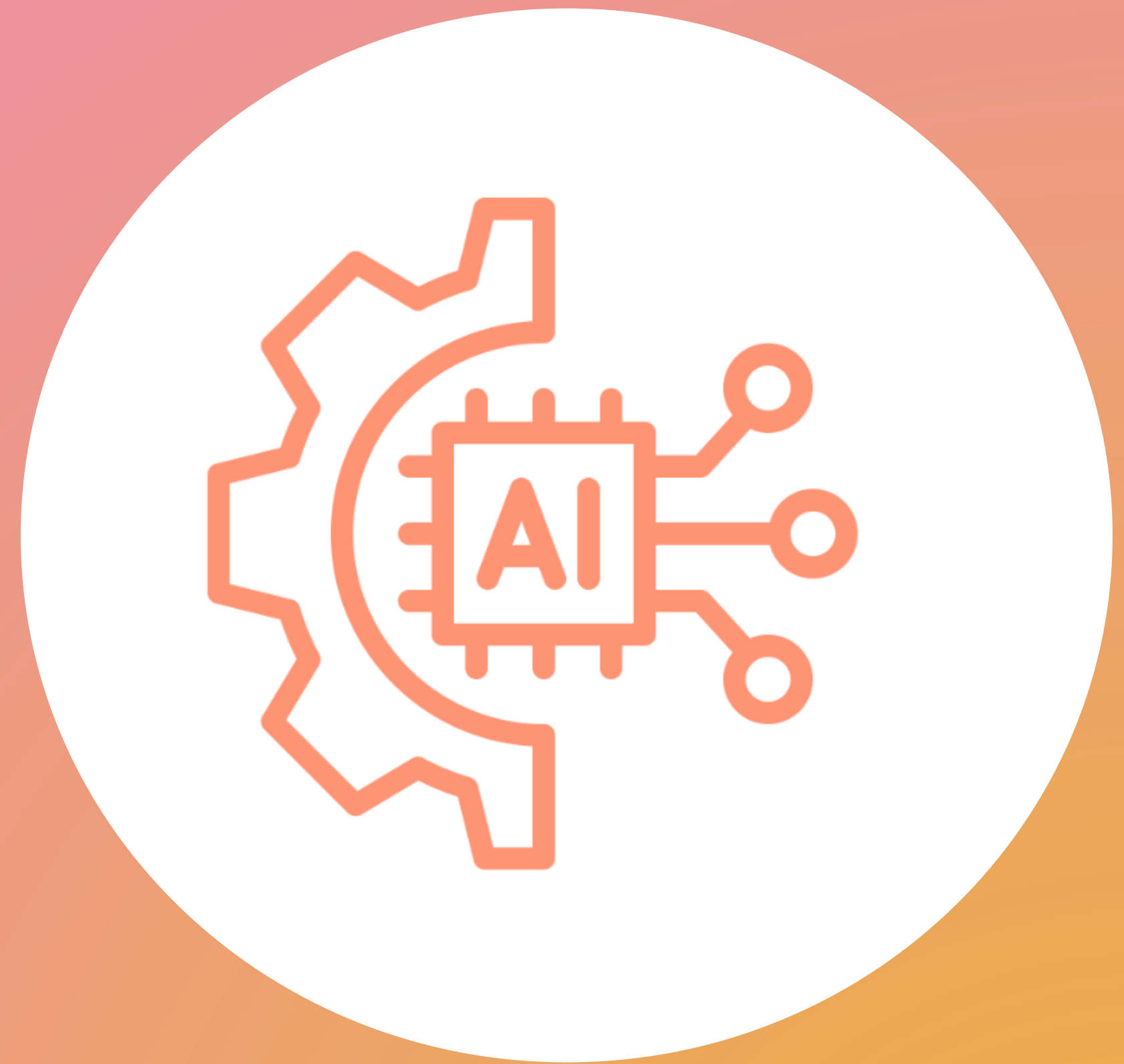


Prompt: Write a request for a prior authorization for TMS for OCD with references

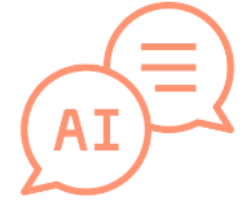
[Doximity GPT]

1. Carmi, L., Alyagon, U., Barnea-Ygael, N., Zohar, J., Dar, R., & Zangen, A. **(2019). Clinical and electrophysiological outcomes of deep TMS over the medial prefrontal and anterior cingulate cortices in OCD patients.** The American Journal of Psychiatry, 176(1), 29-35.
2. Dunlop, K., Woodside, B., Downar, J. **(2016). Targeting Neural Endophenotypes of Eating Disorders** with Non-invasive Brain Stimulation. Neuropsychopharmacology, 41(2), 503-512.

Clinical Work: “In the room”



Generating pleasure + mastery activity ideas



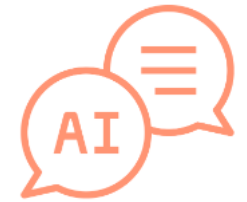
Generate a list of pleasure & mastery activities for a 15-year-old girl receiving BA therapy



Mastery Activities:

- **Learning a new language** - Challenging and rewarding, opens up new opportunities.
- **Coding or programming** - Develops problem-solving skills and creates something functional.
- **Taking an online course or workshop** - Expands knowledge and skills in a specific area.
- **Cooking or baking** - Provides a creative outlet with a delicious reward.
- **Playing a sport or participating in physical activity** - Improves physical fitness and promotes a sense of accomplishment.
- **Learning a new athletic skill** - Like skateboarding, gymnastics, or rock climbing - offers a physical challenge and builds mastery.
- **Puzzles or brain teasers** - Provide a mental challenge and a sense of accomplishment when solved.
- **Taking on a small DIY project** - Teaches new skills and creates something useful for the home.
- **Setting and achieving small goals** - Builds confidence and a sense of accomplishment.

Generating pleasure + mastery activity ideas



Now do it for a 16-year-old boy very interested in politics



- **Research & Learn About Specific Political Issues:** Deepen his knowledge on topics that interest him, like foreign policy, environmental issues, or social justice movements.
- **Develop a Political Blog or Social Media Presence:** This allows him to share his research, opinions, and engage in respectful debates with others.
- **Take Online Courses on Political Theory or History:** Many universities and organizations offer free or affordable online courses that can expand his political knowledge.
- **Intern at a Political Nonprofit or Think Tank:** This provides valuable work experience and allows him to learn about policy development and advocacy.
- **Learn Public Speaking & Debate Skills:** These skills are essential for effectively communicating his political views and arguments.
- **Start a Political Club or Discussion Group at School:** This allows him to connect with other students who share his interests and explore political issues together.
- **Write to his Local Representatives:** This is a way to voice his opinions on specific issues and engage with the political process directly.
- **Shadow a Politician or Political Staffer:** This can provide a unique behind-the-scenes look at how political offices function.

Breaking down graded tasks



Graded Task Plan for Catching Up on 2 Weeks of Math Homework (High Anxiety):

This plan acknowledges the student's anxiety and breaks down the workload into manageable steps.

Week 1:

- **Day 1:** (Light workload, confidence booster)
 - **Focus:** Identify the missing assignments (worksheets, quizzes, etc.) from the past two weeks.
 - **Time allotment:** 30 minutes
 - **Action:** Write down the missing assignments and their due dates in a planner or notebook.
 - **Why this helps:** Getting organized reduces overwhelm and creates a clear roadmap.
- **Day 2 & 3:** (Moderate workload, building momentum)
 - **Focus:** Prioritize the missing assignments. Start with the easiest or most recent ones.
 - **Time allotment:** 2-3 hours per day
 - **Action:** For each assignment, spend 15-20 minutes reviewing the concepts covered in class (notes, textbook). Then, attempt the problems on your own.
 - **Why this helps:** Reviewing refreshes memory and builds confidence to tackle the assignments.
- **Day 4:** (Light workload, seeking help)
 - **Focus:** Identify any assignments where you're stuck or need clarification.
 - **Time allotment:** 30 minutes
 - **Action:** Review the specific problems you're struggling with. Write them down or highlight them clearly for easier reference.
 - **Why this helps:** Knowing where you need help allows you to seek it efficiently.
- **Day 5:** (Moderate workload, utilizing resources)
 - **Focus:** Seek help for the identified challenging assignments.
 - **Time allotment:** 2-3 hours
 - **Action:** Ask a classmate, tutor, or teacher for explanations on the specific problems you listed. Utilize online resources like Khan Academy or math-specific Youtube channels.
 - **Why this helps:** Getting help clarifies challenging concepts and allows you to complete those assignments.
- **Weekend:** (Light workload, mental break)
 - **Focus:** Relax and recharge.
 - **Time allotment:** Free time
 - **Action:** Take a break from math homework. Spend time doing activities you enjoy to reduce anxiety and avoid burnout.

Creating content for exposures

Images

 Show me a small sweet white 9-year-old girl with blonde hair and blue eyes doing the monkey bars

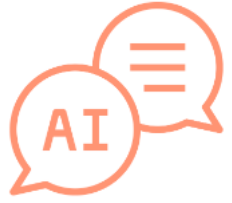


Canva AI image



Dalle-3

Imaginal exposures



Write a first-person, present-tense 2 paragraph story about getting food poisoning and going to the hospital from eating a hamburger. Add details about the experience of vomiting



ChatGPT

The moment I sink my teeth into that juicy hamburger, I know something isn't right. The meat tastes off, but hunger drives me to ignore it. Hours later, my stomach twists into painful knots, and waves of nausea wash over me. I stagger to the bathroom, barely making it before I violently empty the contents of my stomach into the toilet. Each retch feels like my insides are being wrung out, leaving me weak and trembling on the cold tile floor.

As the hours pass, the vomiting shows no signs of stopping. I'm drained, dehydrated, and unable to keep even a sip of water down. With each heave, I feel like I'm teetering on the edge of consciousness. Finally, I realize I can't tough it out any longer. With trembling hands, I dial for an ambulance, the sound of sirens growing louder as they rush me to the hospital. The sterile smell and harsh fluorescent lights offer little comfort as I lie in the ER bed, praying for relief from the relentless agony of food poisoning.

Considerations



Artificial Intelligence Does Not Think!

Statistical prediction of
next word / next sentence

Can summarize, not
synthesize

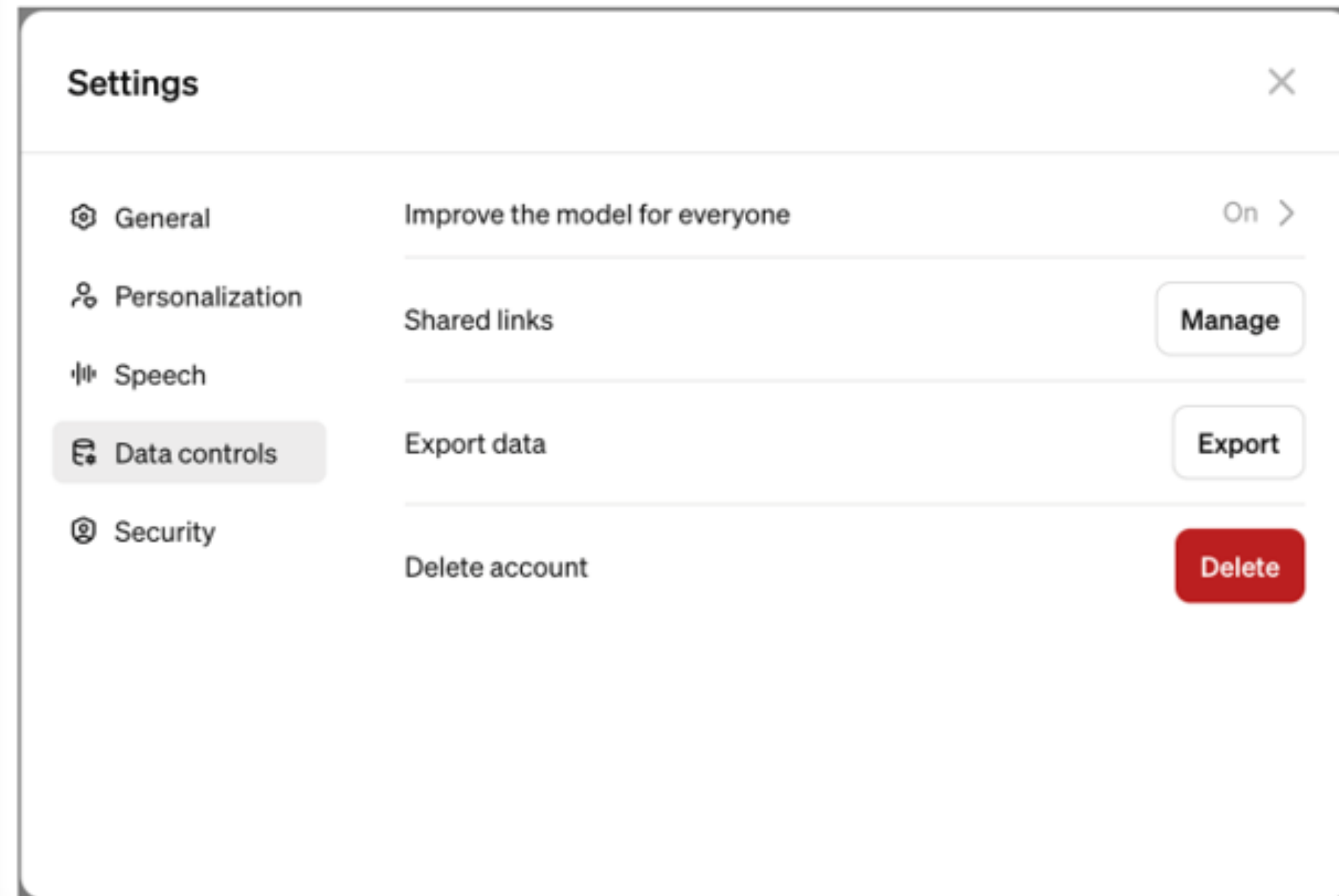
Can reiterate, not reflect

How do I turn off model training (ie. "Improve the model for everyone")?

Web interface (as a logged in user):

To disable model training, navigate to your profile icon on the bottom-left of the page and select Settings > Data Controls, and disable "Improve the model for everyone."

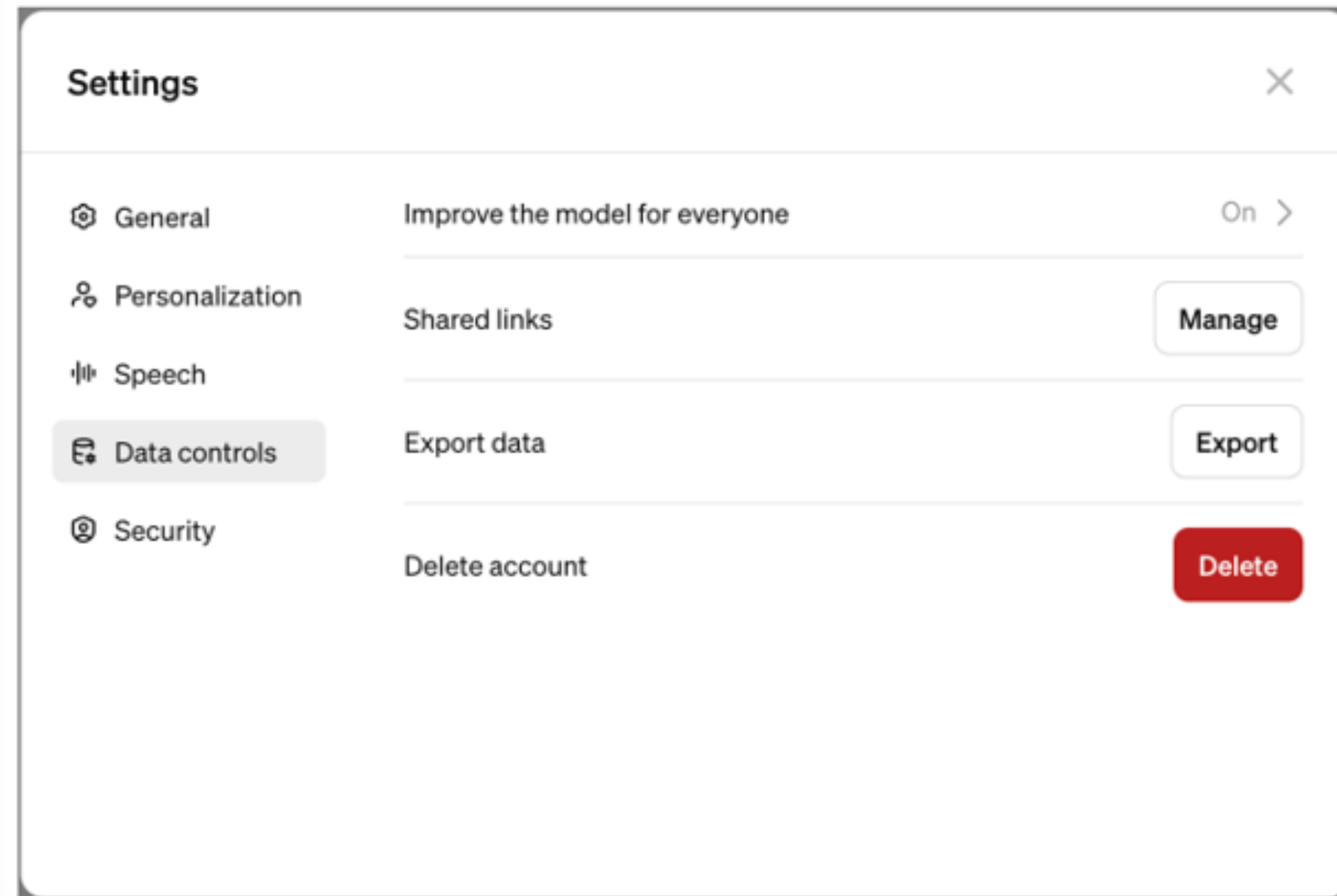
While this is disabled, new conversations won't be used to train our models.



How do I turn off model training (ie. "Improve the model for everyone")?

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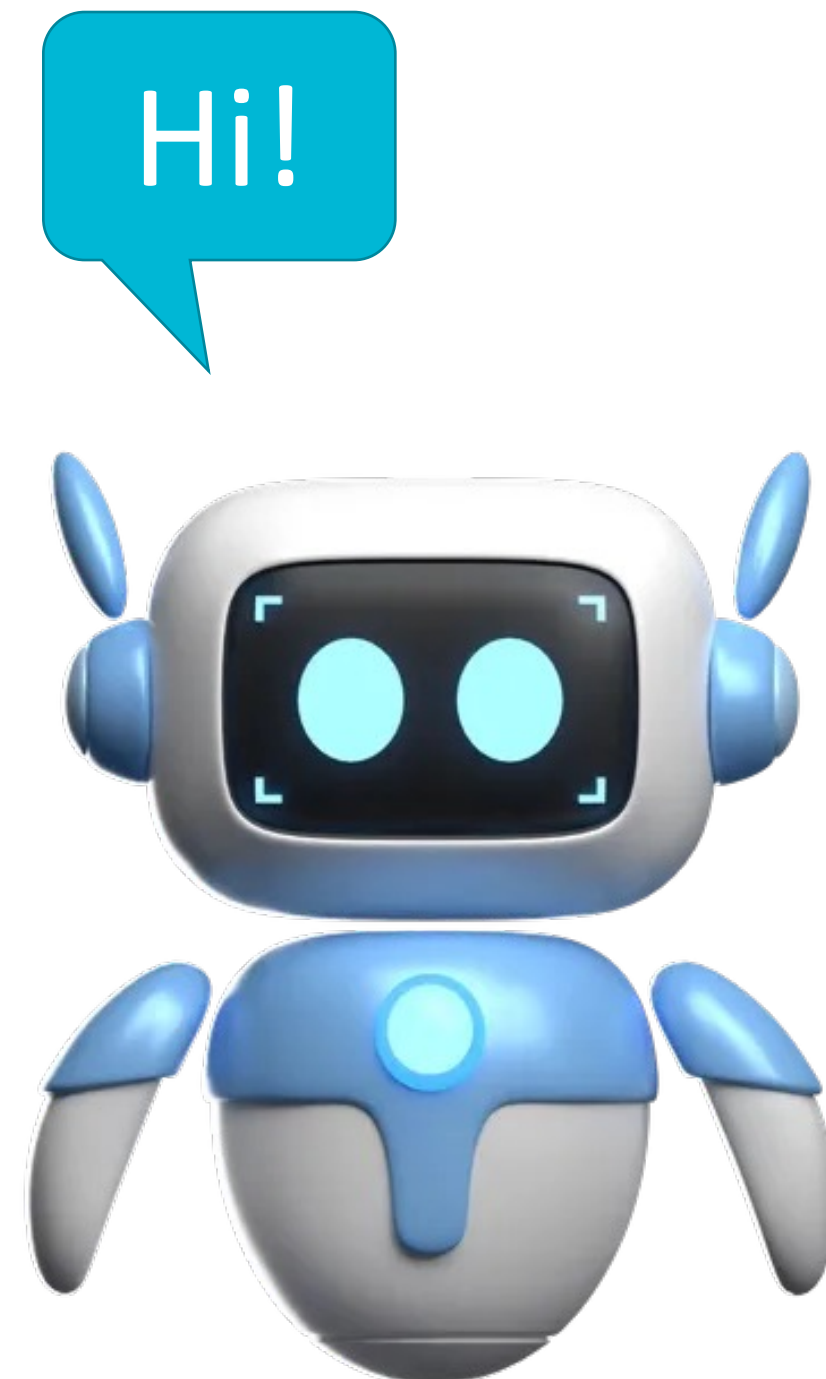


Example future tool from Andrew: Project TEAMMAIT



First Use Case

- Trustworthy
- Explainable
- Adaptive
- Monitoring
- Machine *for*
- Artificial
- Intelligence
- Teams



- Prolonged Exposure for PTSD
- How it works:
 1. Submit session recording
 2. Receive feedback
 3. Opportunity to contest feedback
 4. Repeat steps 1 thru 3 for further personalization

AI = The Ultimate Feedback Provider?

- Characteristics of “robo-consultant”
 - Objective
 - Confidential
 - Automatic
 - Ever-present
 - Nonjudgmental
- Technological horizon: *AI personalization*
 - Contestability of feedback on protocol fidelity
 - Adapt to individual style and cultural context



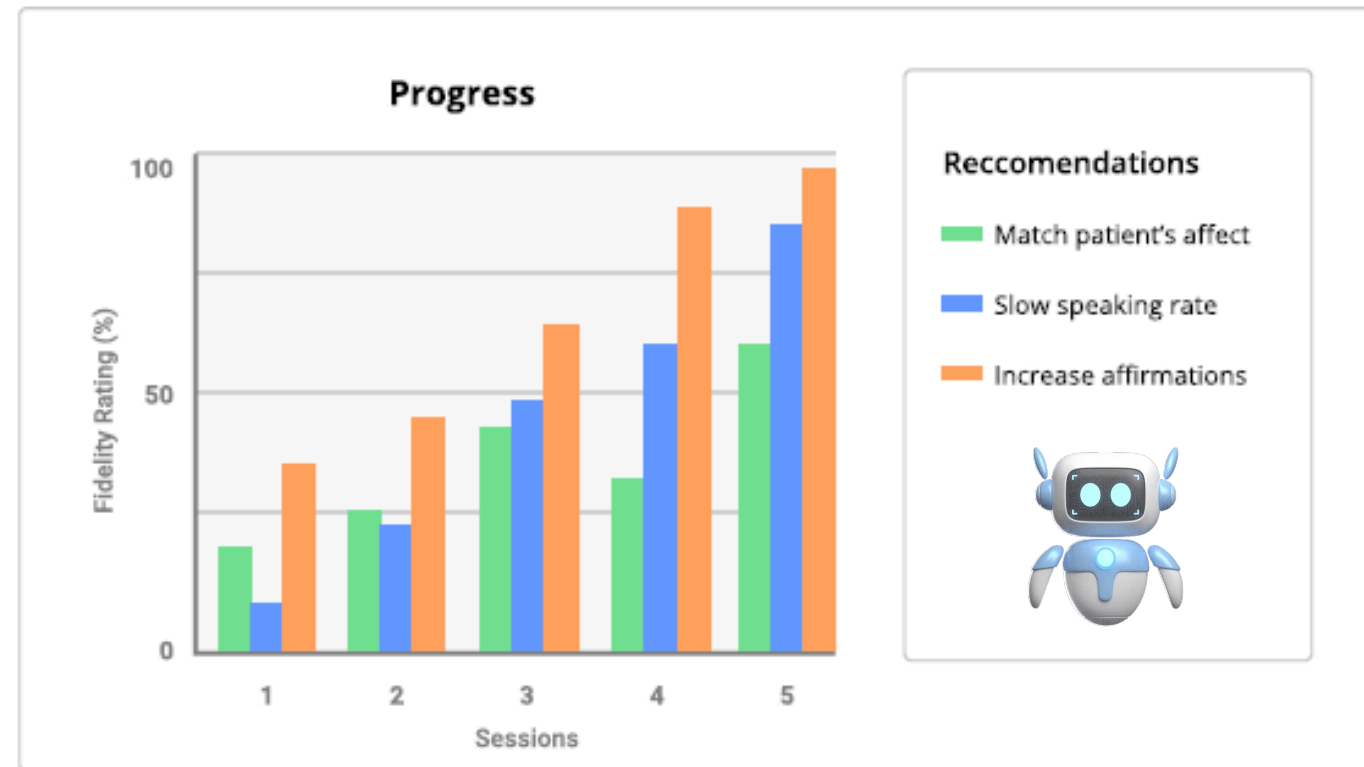
Protocol: Prolonged Exposure

Upload New Recording 

Therapist ID: 8111469

Session: 5

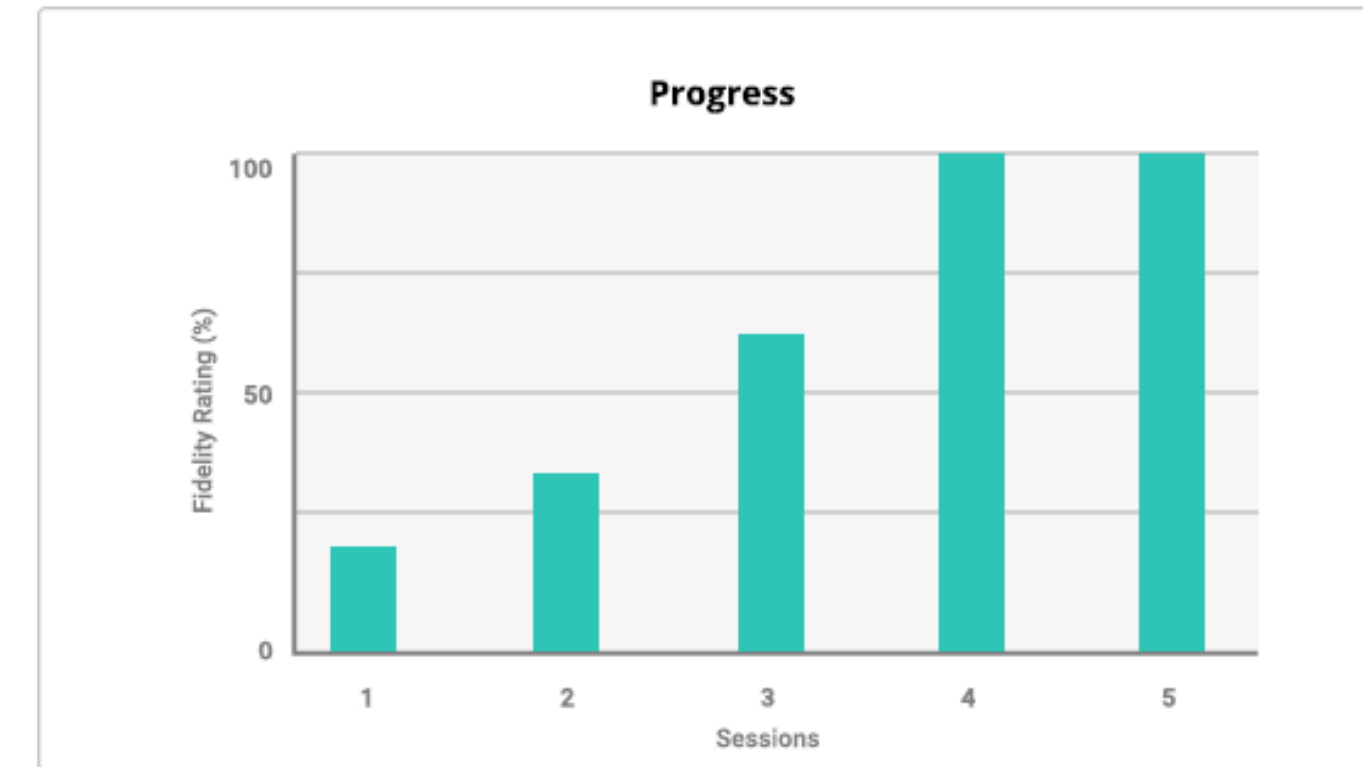
Art of Therapy



Science of Therapy

Session Checklist

- Reviewed homework
- Assigned homework
- Completed imaginal exposure
- Completed processing
- Collected SUDS during exposure
- Provided praise for effort

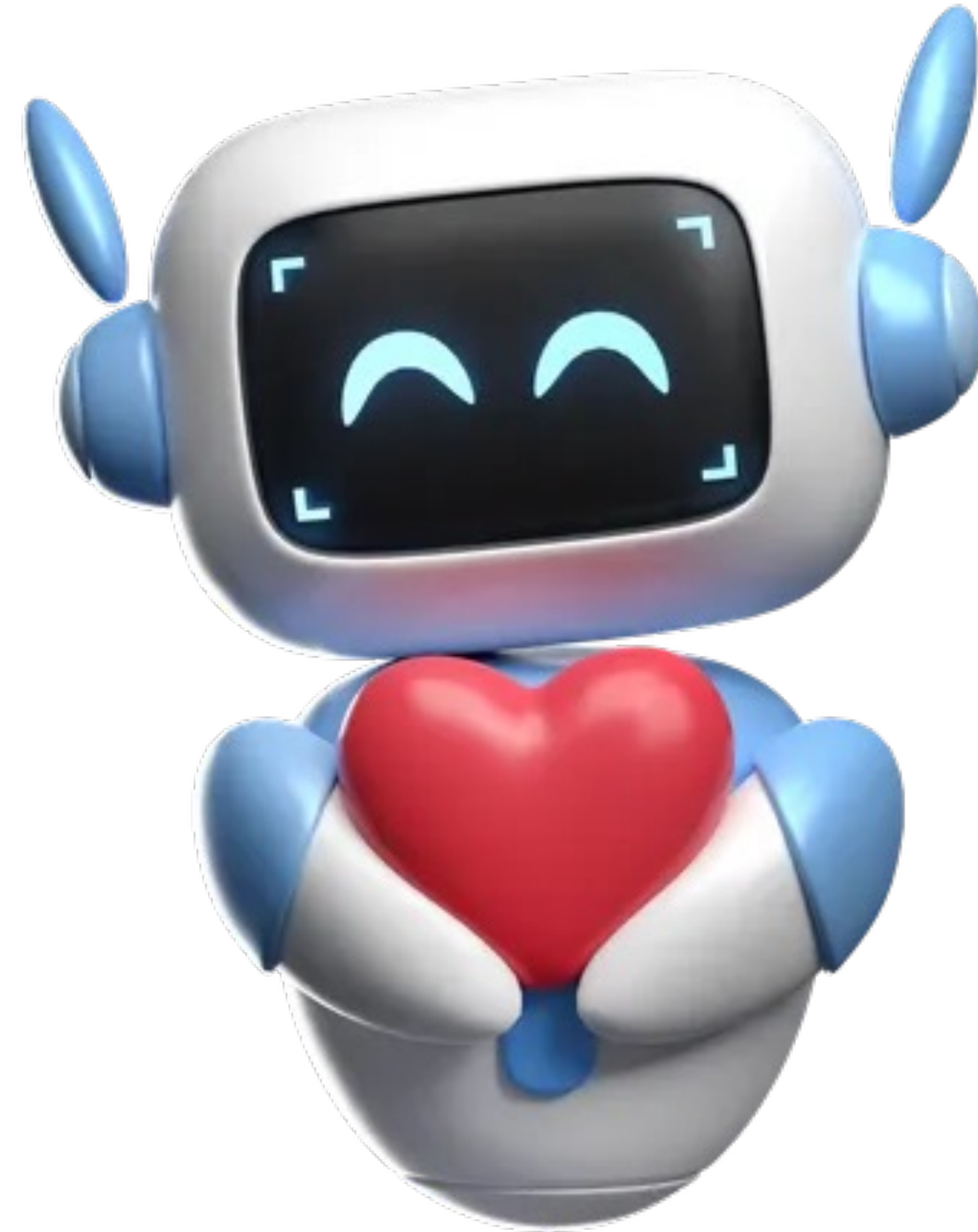


The TEAMMAIT Story

- <https://www.youtube.com/watch?v=1kuZUOQmhqE>

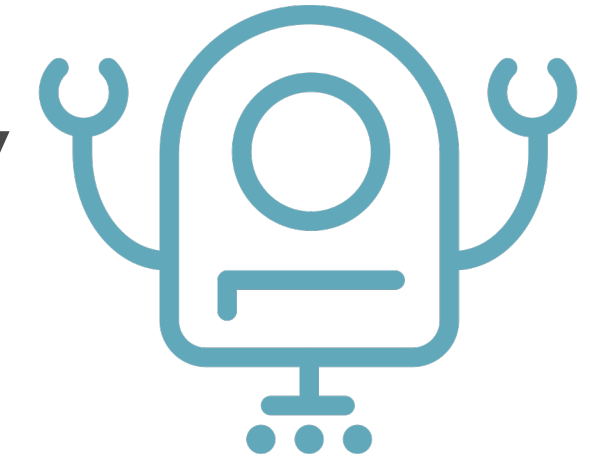
Game-Changing Characteristics -> Health Equity

- Scalability
- Transportability
- Accessibility
- Customizability
- Durability





The Perils of AI in Psychotherapy



Can the AI fully and reliably explain its feedback? If not, how can we assess its validity?

Will AI miss important emotional or psychological nuances that are not quantifiable?

Does feedback reflect biases in the training data, leading to unfair or discriminatory results?

Will offloading the detection and interpretation of therapist performance reduce proactive self-reflection?

Can some users (e.g., clinic administrators) misuse the data in a way that reduces therapist well-being?

Will patients distrust or resist treatment guided by recommendations from an AI system?

Have a voice in AI!

Scan the QR code to join registry of clinicians who want to share their thoughts about Worker-AI teaming in clinical work

