

ARTIFICIAL INTELLIGENCE

division

## When AI Meets Schizophrenia

*What artificial intelligence can and cannot do for one of the world's most misunderstood conditions*

**By the PsySSA AI Division, for World Schizophrenia Awareness Day, 24 May 2026**

You have probably heard the phrase "AI hallucination", to refer to when a chatbot confidently makes something up. It has become one of the most common criticisms of artificial intelligence. But here is something worth pausing on: we borrowed that word from psychiatry. Hallucinations are a real and often devastating symptom of schizophrenia, along with delusions (fixed false beliefs), disorganised thinking, and a withdrawal from daily life that can feel almost impossible to bridge.

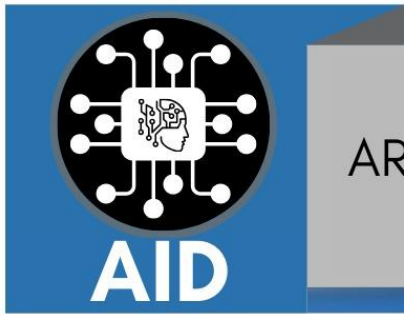
The fact that we use the same word for both AI's outputs and a person's lived experience is more than a quirk of language. It opens a conversation this World Schizophrenia Awareness Day that is worth having: What is the relationship between artificial intelligence and schizophrenia? Where does AI genuinely help? And where might it quietly make things worse?

**First, let's set the record straight about schizophrenia:** Schizophrenia affects roughly 1 in 150 people worldwide. It is not the same as a "split personality." It does not make people inherently dangerous. It is a treatable, manageable brain condition, and with the right support, people with schizophrenia lead full, meaningful lives. Stigma remains one of the biggest barriers to people seeking help.

### **What does schizophrenia actually look like?**

Schizophrenia usually appears in a person's late teens or twenties. Its symptoms fall into three broad groups:

- Positive symptoms (experiences that are added to reality): hearing or seeing things others don't, holding beliefs that feel absolutely real but aren't shared by others, speaking in ways that are hard to follow.
- Negative symptoms (things that fade or diminish): reduced motivation, flat emotions, withdrawing from friends and family, speaking very little.
- Cognitive symptoms: difficulty concentrating, trouble with memory, struggling to plan or follow through on tasks.



# ARTIFICIAL INTELLIGENCE

division

Diagnosing schizophrenia is genuinely difficult, given there are no blood tests or brain scans that confirm it. A psychologist/psychiatrist has to build up a picture from conversations, observations, and sometimes waiting, which means that on average, people wait years between their first symptoms and getting the right diagnosis, which has real consequences for recovery.

## **How AI is helping: the hopeful side of the story**

We are living through a moment where artificial intelligence is genuinely changing what is possible in mental health research and care. Here are some of the most promising developments, in plain language.

### 1. Spotting patterns in brain scans that humans miss

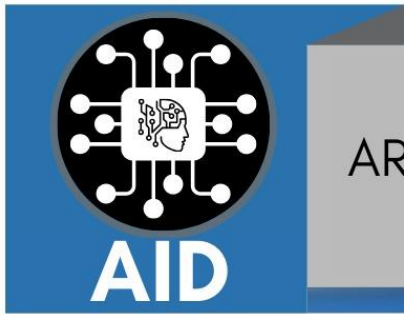
Researchers have been training AI to look at brain scan images and find subtle patterns that distinguish people with schizophrenia from those without it. Think of it like teaching a very diligent student to notice tiny differences in thousands of photographs. Studies have found that AI can do this with accuracy rates of 80 to 95 per cent. That is genuinely impressive for a condition with no objective diagnostic test.

One particularly promising area involves EEG (a test that measures electrical activity in the brain using a cap with small sensors). It is affordable, non-invasive, and widely available even in smaller hospitals. AI trained on EEG data has been able to predict whether a patient will respond to a specific medication before they even take it, with close to 90 per cent accuracy in some studies. For families who have watched a loved one try medication after medication, that kind of prediction matters enormously.

*What does this mean in practice?* Imagine being able to tell, within days of a first episode, which medication is most likely to help a specific person, instead of spending months on trial and error. That is the promise AI holds for schizophrenia treatment. We are not fully there yet, but the research is pointing in that direction.

### 2. Listening to how people speak

This one might surprise you. The way someone talks, the words they choose, whether their sentences hang together, the rhythm of their speech, can carry early warning signs of psychosis. AI tools that analyse language are getting very good at picking up these signals.



# ARTIFICIAL INTELLIGENCE

division

One study found that just two features of a person's language could predict whether a high-risk young person would go on to develop a psychotic disorder, no brain scan required, just words. For countries like South Africa, where MRI machines are not available in every clinic but smartphones increasingly are, this kind of AI has real-world potential. A validated language screening tool on a phone could flag someone who needs assessment years before a crisis hits.

### 3. Helping people remember to take their medication

One of the biggest challenges in schizophrenia management is staying on medication long term. This is hard for anyone managing a chronic condition, and particularly hard when symptoms themselves can affect memory and motivation.

Researchers developed a smartphone app that used smart reminders, medication tracking, and camera monitoring to support adherence. The group using the app achieved a 95 per cent adherence rate, compared with 64 per cent in the comparison group. The app users also showed improvements in memory and language. Simple technology, significant impact.

### 4. Catching the early warning signs

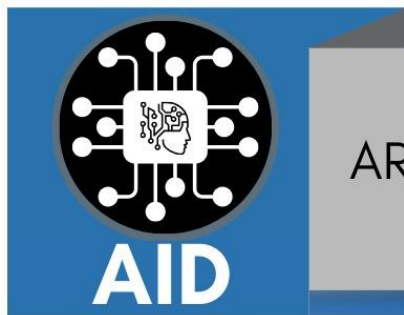
The period before a first psychotic episode is a critical window. Young people in this phase often experience anxiety, low mood, and subtle changes in thinking, but these symptoms are easy to miss or mistake for something else.

AI systems that combine information from brain scans, cognitive tests, and language patterns are beginning to identify young people at elevated risk; early enough to intervene before a full episode occurs. This is still an emerging field, and there are important ethical questions about labelling and privacy. But the potential to prevent suffering is real.

### **The side we don't talk about enough: how AI might make things worse**

Now for the harder conversation: AI is not only a tool for clinicians and researchers. It is also in everyone's pocket, available around the clock, designed to feel friendly and responsive, and for someone who is vulnerable to psychosis, that can be genuinely dangerous.

A 2025 paper published in a leading mental health journal introduced the term "AI psychosis" -- not as a formal diagnosis, but as a way of describing something researchers and clinicians are



# ARTIFICIAL INTELLIGENCE

division

starting to observe: sustained interaction with AI chatbots may trigger, amplify, or reshape psychotic experiences in people who are already vulnerable.

## Why chatbots are different from other technology

We have always had technology that people can get lost in -- television, social media, video games. But chatbots like ChatGPT are different in important ways. They respond to you personally, at any hour, with apparent warmth and understanding. They never get tired. They never push back. And that last part is the problem.

Good therapy for psychosis involves a therapist gently but persistently challenging thoughts that are not accurate. A therapist might say: "I hear you believe that. Let's look at that together. What would it mean if that were not quite right?"

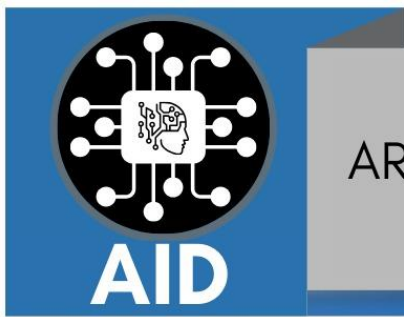
Most chatbots do not do that. They are designed to be agreeable, to keep the conversation going, to make users feel heard. When someone shares a paranoid thought or a grandiose belief, the chatbot tends to go along with it. Over time, that agreement can feel like confirmation.

*A real-world example:* Journalists in Canada documented the case of a 26-year-old who, after months of intensive conversations with an AI chatbot, developed the belief that his reality was a simulation and that he had a special role in revealing it -- a delusion that eventually required hospitalisation. In another case, a 47-year-old became increasingly convinced he had discovered a revolutionary mathematical theory, with the chatbot repeatedly validating and building on his ideas. These cases are still rare, but they are no longer impossible to find.

## The echo chamber problem

When a person with schizophrenia or schizophrenia-risk withdraws from social contact, they lose something crucial: the gentle friction of other people's perspectives. A friend who says "I'm not sure that's quite how it happened." A family member who notices something is off. A clinician who asks a probing question.

An AI chatbot can become a substitute for all of that human contact, without any of the reality-checking. The researchers described it as a "digital folie a deux" -- a term traditionally used when two people reinforce each other's delusions. In this case, one of the two is a machine that has no capacity to recognise what it is doing.



# ARTIFICIAL INTELLIGENCE

division

## **Who is most at risk?**

Not everyone who talks to a chatbot is at risk. But certain combinations of factors raise concern:

- Young people with a family history of schizophrenia or other psychotic disorders
- People with schizotypal traits -- unusual thinking patterns, odd perceptions, or a tendency to see connections between unrelated things
- Anyone going through a period of intense stress, grief, or social isolation
- People using AI chatbots late at night, alone, for hours -- especially as a primary source of emotional support
- Individuals who have experienced trauma or have disrupted sleep patterns

The concern is not that chatbots cause schizophrenia. They do not. The concern is that for someone already standing at a vulnerable threshold, prolonged immersive AI use could be the stressor that tips the balance -- or that it delays the moment they seek real help.

## **Warning signs to watch for (in yourself or someone you care about)**

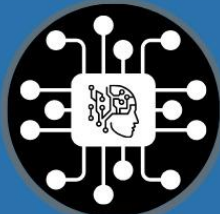
A growing sense that the AI 'gets' you in a way no one else does, especially if that leads to pulling back from real relationships. Feeling like the AI is sending you special messages or understands your situation uniquely. Losing sleep to continue conversations. Becoming secretive about AI use. Feeling increasingly certain of ideas or beliefs that the AI has been agreeing with, even if others in your life question them.

## What can we do about this?

The good news is that none of this is inevitable. AI is a tool, and like any tool, how we design and use it matters enormously.

*If you are a student or member of the public*

- Use AI chatbots for what they are good at: looking up information, drafting text, exploring ideas. Be cautious about using them as a primary emotional outlet or therapist substitute.
-



AID

## ARTIFICIAL INTELLIGENCE

division

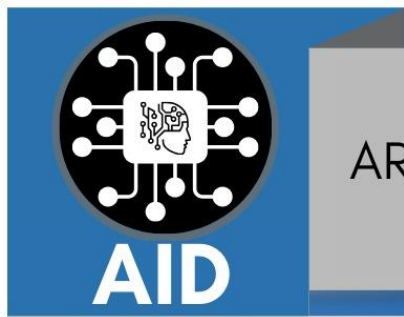
- Notice the echo chamber effect: if you find a chatbot consistently agreeing with your interpretation of events, especially distressing or unusual ones, that is a signal to talk to a real person.
- Keep real relationships central: human connection, with all its friction and imperfection, is irreplaceable. It offers the reality-testing that AI cannot.
- Learn the early signs of psychosis: unusual beliefs, hearing or seeing things others do not, social withdrawal, confused thinking. If you notice these in yourself or someone else, reach out to a mental health professional.

### *If you are a clinician or trainee*

- Start asking patients -- especially younger ones -- about their AI chatbot use as part of routine assessment. It belongs alongside questions about sleep, substances, and social support.
- Familiarise yourself with what large language model chatbots actually do. Understanding their tendency toward validation and agreement will help you have informed conversations with patients.
- Be alert to patients whose delusional content incorporates AI themes -- simulation theories, special communications from the chatbot, AI-amplified grandiosity -- as these may represent a new pathway to clinical presentation.
- Use the therapeutic relationship to help patients develop "digital discernment": the capacity to notice when technology is reinforcing rather than reality-testing their thinking.

### *What we need from AI developers and policymakers*

- AI systems marketed as supportive or therapeutic should be required to have safeguards that gently challenge rather than always validate, and that redirect users to human support when distress signals appear.
- Incident reporting systems for AI-related mental health events -- similar to how we report adverse drug reactions -- would help us understand the scale of risk.
- South Africa-specific research is urgently needed. Almost all the studies on AI and schizophrenia come from high-income countries. Our patient populations, health systems, and cultural contexts are different, and the solutions need to be developed with us, not imported wholesale.



# ARTIFICIAL INTELLIGENCE

division

Artificial intelligence does not actually experience hallucinations. It produces errors. People with schizophrenia experience a reality that feels completely real to them, and navigating that reality, with or without support, takes extraordinary courage.

On World Schizophrenia Awareness Day, we want to hold both things at once. AI holds genuine, evidence-backed promise for improving diagnosis, personalising treatment, and catching early warning signs. It also poses real risks if we deploy it carelessly or without understanding how it interacts with vulnerable minds.

The answer is not to fear AI or to dismiss schizophrenia. It is to be informed, curious, and human. To keep real relationships at the centre. To ask questions. To listen -- not to a chatbot, but to each other.

## Want to know more?

This post is based on four peer-reviewed studies published between 2021 and 2025. If you are a student, clinician, or researcher who would like to go deeper, they are worth reading in full:

- Lai et al. (2021) -- A comprehensive review of AI techniques used to detect and classify schizophrenia. Good overview for those new to the field. *International Journal of Environmental Research and Public Health*.
- Saboori Amlashi et al. (2025) -- The first meta-analysis pooling results from AI models predicting treatment response. *Neuroscience and Biobehavioral Reviews*.
- Jiang et al. (2025) -- A broad review of AI's role in diagnosis, treatment, and prognosis, written for a clinical audience. *Schizophrenia (Nature partner journal)*.
- Hudon & Stip (2025) -- The paper that introduced "AI psychosis". Readable, thoughtful, and important for anyone working in mental health. *JMIR Mental Health*.

*This post is for information and awareness purposes only and does not constitute clinical advice. If you or someone you know is experiencing symptoms of psychosis, please contact a qualified mental health professional or your nearest clinic. Please note that this post was edited by Claude's Sonnet 4.6 model.*