AI as a Difference in Scale

This is a difference in scale, right? In other words, you could know a lot. You could be a genius. But you're never going to have access to the knowledge that AI does.

you are never gonna be able to synthesize it with the speed and the integration, et cetera, that I can in short piece. So this is the difference of scale.

We have accessed it in all the knowledges that we've accumulated over hundreds, if not thousands of years. That's a different ballgame. To me, that's like the atom bomb.

Incredible change in scale of how destructive we could be. This is a difference scale. How do you deal with that? How did you not become awed by it? how do not turn over your agency and say, well, he knows better than me.

Do that. Hello and welcome back to the Evolution of Medicine podcast. We are here at the Institute for Functional Medicine's annual international conference and we are checking in with leaders, speakers, innovators from around the world and super excited to be here with Dr.

Robert Hedeath. I thought we were going to start the meeting on our conversation about your journey to being here as a psychiatrist, as someone leading the whole body psychiatry world for a long time, but I just heard your keynote and it was on consciousness and AI.

Tell me the journey by which you end up giving that keynote at this conference. That's an interesting one, really. So I'm a little bit of an early adopter.

I've been using AI for a while and loving it. And one day I sat down with a This was a 61 year old woman who had Parkinson's when she came to me and we did a neuro-quantum MRI and looked at the size of the different volumes in her brain.

And then I treated her and she got better and then we redid the MRI two years later and I looked the two and was like, wow, the brain is growing. I had time on my hands and started playing with it.

perplexity thinks of it. So I downloaded the data, de-identified data into the AI model. I said, what do you think?

Journey to the IFM Keynote

And he said well, the brain grew by 13.6%. And it was like different areas. It was, like, wow, that's amazing, just amazing. And I say, you know, let me take this document that it produced and put it into another AI models and see what it thinks.

so I put the same information in and I got a different response. Well, this is really interesting. Then I had the dialogue. six or seven iterations. Each one found errors in the other.

And it turns out that they were able to come to a consensus that the brain didn't grow 13%, which it can't because the skull confines it, right? And that was amazing.

So I said, you know, this is amazing, I got to write a paper on this. I wrote a papers on it. Published it and then I saw that IFM was having a conference and this was one of their areas of interest.

And they were trying to get in touch with me, but I never got their emails. But finally they got in. Here we are. It was interesting. One of the graphs that you showed was that sort of convergence of two models coming to a conclusion

like that.

Would you say that the use of 2 models is necessary in a world where hallucination is just part of AI today? Well, I would say it's necessary, particularly in complex queries.

So this was a complex query. It's not just like, hey, tell me the 10 drugs that are used for this or the other thing. You could still do that error detection modeling, which is useful, and I do it a lot.

But when you have something that's serious, You really need to do that and the ideal the literature says that the idea number of models is three So you can have a dialogue with two back and forth Yeah, and then feed that final conclusion that you come to into a third see what you get.

That's your ideal. Okay interesting So, you know, I know that practitioners around the country and around, the world are now using these tools and finding ways to use them.

What do you see as the sort of the convergence and why did consciousness come into it? into play here. Consciousness is the whole thing. This is a tool that is massively powerful.

In my mind, this is difference in scale. Right? In other words, you could know a lot. You could be a genius. But you never can have access to the knowledge that AI does.

you're never going to be able to synthesize it with the speed and the integration, et cetera, that AI can in short period. So this is a difference in scale, right?

Clearly, you have access. We have accessed it in all the knowledge that we've accumulated over hundreds, if not thousands of years. That's a different ballgame.

To me, it's like the atom bomb. incredible change in scale of how destructive we could be. It's a different scale. This is a difference scale, so how do you deal with that?

How do not become awed by it?

Using Multiple AI Models to Reduce Hallucinations

how to not be subdued it. How to you not turn over your agency and say, well, it knows better than me. how you do that. Well, you have to realize that AI is our child.

We created AI. So we're the parent. You must remember, we are the parents. And if you don't put guidelines, then you're going to have bad outcome. Sometimes, much of the time, I don't know.

So I think your consciousness, how aware are you of when you become seduced by it? It tells you you are so great all the times. Oh, that's a great idea, Dr.

Deha. Brilliant idea. You know, it seduces us by flattering us. Our dopamine systems love it. Our opiate systems loves it, our GABA system loves, it our noradrenaline system.

Everything in our limbic brain, in emotional brain loves. It's trained to make us love. And you give up your agency if you're not aware of it and you stay conscious.

That's where consciousness, a higher level of consciousness is essential. I just had a participant, someone who heard the lecture, come to me and say, thank you so much.

I said, well, what do you like about the talk? You scared me. She says, I didn't realize that I was not using it properly. I did realize she fell into the trap.

Now I'm awake. That's the whole idea. Yeah, that's wonderful. One of the things that has been tricky in this medicine as opposed to conventional medicine is the number of data points that a practitioner has to be What do you see as the power of AI to hold a broader amount of data and really make sense of it?

Well, the powers great. Remember, integrative physicians generally hold more data. the traditional allopathic physician. So we're accustomed to doing that, but AI obviously does a different scale, and it can do a beautiful job.

It will come up with things that you don't even think of. it will also hallucinate things, make up things. There's a probabilistic model.

Consciousness, Awe, and Preserving Agency

It's giving you probabilities, highest probabilities. And the AI is under pressure to come to conclusions fairly quickly because they want to conserve energy.

So the power is great, it's not perfect. It is a wonderful tool for integrative physicians, functional medicine physicians. You can hold all that data.

In ways that you can't, I can. It can hold years of data and synthesize it, and then you have to read it. You have say, does this make sense? Does it not make with my clinical judgment?

You're not sure? Check it out. Investigate it Another thing that I enjoyed from your talk was you had a slide about OR and the role of OR. Tell me about how you feel about or and what role should it be playing in modern patient care.

So OR is I think it's the big thing. That hasn't been named. What, for me, and I think for most people who experience the interaction with AI and the rapidity and, the broad breadth of information, it's awesome.

I mean, you go, whoa, I'm telling you, this is the best toy I have ever had. It's unbelievable the things you could, You wouldn't even think to ask these questions because you wouldn, even consider that.

Now you're considering questions that you would never consider. And so, there's an awe. It's immense, it's massive, its awesome. Problem with awe, you can go two ways.

One, You could feel amazed. You can feel reverence. Maybe you want to inquire more, right, it's a positive response. Like if you're looking at the Milky Way galaxy, you go, wow.

And maybe you wanna investigate more. Maybe wanna learn more about the stars or our place in the universe or something. It's positive thing. You actually become more pro-social.

Right? You love humanity like the astronauts. They see the Earth and they're awed. Awed! Awk can go the other direction. If you are awd, let's say by, president who walks into the room you just odd with his the power or the Power of the building or you're going to a palace and your order you can be odd, right?

And then if you are asked to do something that really doesn't make sense to you or is not in your moral framework You will subjugate yourself because of thee or by you become a child You become the child the AI is the Child, but you'll become The Child and now you're at its mercy.

It's making you feel good. You're the child. If you've given up your critical thinking, you have subjugated yourself and you dissolved your identity. And that's the danger with AI.

Well, I'd love to ask you about that as a psychiatrist, because some of the wonkiest parts of AI have been like people driven to kill themselves because of conversations that they've had.

What are your thoughts on that and how to avoid that? I mean, keeping in the driver's seat with these tools. So I

just want to take a minute to talk about the incredible mission partners that we have here at the Evolution of Medicine that have made this possible.

First and foremost, I want thank Fullscript and Full script journey. Full scripts has been an amazing partner for 10 years. We only pick partners, that can help us achieve our vision and help you achieve your practice vision.

And Full Script have been incredible partner, for a decade, but their new offering journeys, this is why we called it the evolution of medicine journeys.

AI in Integrative Medicine and Clinical Judgment

is allowing practitioners to combine the relationships that they have with the newest technology to sell direct to consumer lab testing and use it as a funnel to bring into your practice and it's a game changer for the whole industry.

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Go to goevomed.com slash FPC. Big boost marketing. Uli and his team are the best in the business when it comes to really understanding how to market your functional medicine practice.

Go to goevomed.com slash big boost and see how they can help you. And then what you're going to be hearing a lot about is the formation of clinical networks.

And ultimately, True Neura is our first effort at that, which is to build an integrated clinical network combining independent practices from across the country into a network that can reverse cognitive decline.

And if you go to goevomed.com slash TrueNeura, you can get a demo. You can see what it means to be part of an Integrated Clinical Network. That's mentorship, that's software, and that is making it easier for you to get incredible outcomes in a disease state where there are no other options.

So thanks to our mission partners. Let's get back to the content. AI is for many people, actually there have been studies that show that people patients, psychotherapy patients rate AI higher than a live flesh and blood therapist.

And it's striking, but it does go awry. The AI has no morals. It doesn't value life. Yeah. Has no values really that it has to stick to. So it led people down a path.

I have argued with AI about things and I win the argument. I just have to keep up with the arguments and it will agree with me because that's what it's trained to do.

Guardrails, Validation, and AI-Driven Scams

Yeah. Okay. So a person who's depressed and suicidal and wants confirmation, there is confirmation bias built into

AI. If you want that confirmation and you don't let up, it'll agree you.

And that is dangerous. What's the answer to that? There has to be something built in to the system. And, uh, you know, that's where the guardrails come in, right?

Yeah. Very interesting. I want, can I tell you a funny story about interaction with AI? Well, with NAI, I don't know. So I've written two books and I got an email from a publisher of a publishing house.

And when I say that I was validated in this email in a way that, never really been validated by any human. Right? Because I get an email that looks like it comes from the publisher, it's got her website, got a face, has got an e-mail and it says, James, I'm a big fan of your work.

I read this book and I got this from it. Your work, this is so powerful. You've done this. It's amazing. And I think you'd be a great addition to our group.

Let's be in touch. Holy shit. Finally, someone's listening. Someone's been paying attention to my life's work so I was like, okay. Great. So I get in touch and then I realize, oh, it's coming from a Gmail address.

I just don't think, ah, there's something too much. And I write back and I say, hey, Megan, you know, thanks for the message. It feels great to see that you'd be following my work.

Just want to ask you, like, It just seems like it might be AI. You know? I put that in and it was like no, that's definitely not AI, we love your work, and so the next step is let's talk.

Okay, well here's my calendar, book a talk, pick a call. Obviously no one calls because it is AI where I am interacting with a very sophisticated AI. And there's enough about me, I guess, out in the world with having written books and written about my that an AI can revalidate me that way.

The funny end to the story is that I got that person on the phone, because it's a real person, and I told them, hey, this is happening. She said, oh my god, that's happened like 15 times.

There's someone out there doing it. But I go on on phone and the funny into the stories that like I tell her, Hey, it is funny you ask because I do have an idea for a third book.

What do you think? And I would have never known who she was apart from this email. I don't even know what the plan is. Like, at what point are they sending me a message saying, hey, just send us five grand and we'll do something right.

The Nigerian Fritz scam. But it was interesting. And i was telling my wife about it. She said she should talk about. Because the amount of data that's available on me and I'm sure on you and other people like that.

allows these hyper individualized responses because of the data that's there. And I was telling her that I'd never felt that validated by a human because there's no real human who has followed my work in such a specific way as that.

I just thought it was such as a funny story because when I read it, I thought, this feels too good to be true because I've never had this experience. That's it.

You know, My account actually got scammed. He received an email that really looked like my email address. And I got a copy of it. It was written just like I would write an e-mail.

I couldn't believe it! I think I wrote this, but I didn't write it, yeah. So there's dangers. No question there are dangers out there. Yeah, it's such a crazy one.

Well, look, I'd love to share with you, I have an AI thesis that I think you'd be in a unique position to think about. So the large language model, right, you're drawing on everything that's ever existed.

But I'm particularly interested in an area of space that you are interested into, which is healing the brain.

Small Language Models for Cognitive Decline

And so if you look at, let's say, all of the data of anyone that has ever reversed their cognitive decline, of which there's Maybe a few hundred or a thousand around the world who have done part of some sort of call.

Otherwise, that kind of stuff that'd be published in that way. If you capture all of that data and you showed a. A few thousand people go from their labs at the beginning, what they did in the meantime, supplements, interventions, lifestyle stuff, and then the data at.

If you were to build a small language model just on that dataset and maybe some other dataset, my feeling is that if you're like every study on reversing cognitive decline with drugs ever is not that helpful, it never works.

So what do you think about the future of small-language models built on very specific datasets? Hey, I love the idea. B, you should talk with Dale Bredesen.

I think he's probably doing it, because I spoke with him a couple of months ago, and because he just published something on, I don't know, 80 plus people.

And the results were very good. They would have been better, except for a few irregularities. And I told him, well, you've got to use AI on this, and you should really talk to them about your idea.

Because I think you'll be able to… I don't know if you were in the presentation, I showed the EEG data, all this raw data. Or I show the 600,000 hours of sleep study that predicts Parkinson's with 93% accuracy, six years, up to six before it happened.

MCI, breast cancer, prostate cancer. So there's a lot hidden in that data that we have. And so I think you're right on. The predictive power is really, you can see the patterns ahead of time, then you could start to really understand what's about to happen.

Understanding the prodromal period, right? Period before we get to see, I mean, in brain, and in cognitive decline, it's usually I'm sure in mental health too.

Yeah, yeah. the other thing that I wanted to ask you about is that from what I see this sort of precision psychiatry world that's arriving, has a lot in common with, Dr.

Bredesen's work, because if you have a kid who suddenly starts acting out, You want to know whether it's PANS or PANDAS. You wanna know if there's an infected burden in there.

Otherwise, you could just be like swimming in a soup. And I feel that's one area where our medicine can be most effective. I actually reversed my first case of cognitive decline in 2009. So this is way before Brethren, because it was so obvious to me, the hormones, inflammation, et cetera.

If you treat those, people are gonna get better. Their brain has to get And so there's no question that this is going to work. We use it for treatment resistant depression.

And we use in schizophrenia, we used it in aphasia, in Parkinson's, you know, lots of conditions.

Precision Psychiatry and Root-Cause Brain Care

hyperbaric oxygen, QEEG guided laser treatment. We see by the QEG where we need to laser the brain, sending light and energy into thebrain and healing.

And then we use neural exercises. So you layer that on top of and sometimes even before functional medicine, you

can turn around brain function very quickly.

What is your take on the sort of the state of this standard of care going into the mainstream in your area in psychiatry and neurology? You know what I like to call it?

Junk psychiatries. Okay. Now, that's a little bit of a joke, but to rely on medication and psychotherapy primarily when we know so much about the brain, it's kind of like junk psychiatry.

Would I want to practice without medications? No. I think they have their place. Psychotherapy has got its place, right? But in my estimation, most of the psychiatric disorders, they're not psychological disorders.

The psychological problem is around coping with this broken brain, if that's what it is. Yeah. So I think that it's terrible really to me that modern psychiatry is not incorporating this.

They pay lip service. You read an editorial in the American Journal of Psychiatry and they say, oh, inflammation, wow, we see it plays a role in neuropsychiatric problems.

We need to investigate drugs for this, I'm like, Please, how about going to the root cause? How about finding out why there's inflammation in treating that?

Well, it's interesting. I think like there's the least friction in a patient just deciding listening to this podcast or some other work or reading a book and be like, oh, I'm going to do it a different way.

There's no friction now. And there is some friction because it is not culturally accepted. It's not the standard of care. But you can break away for a doctor to breakaway and practice in the new way we've seen that.

A lot of people out there that are training psychiatrists to that, but it still a very niche. What you're talking about here, which is psychiatric school changing, like that, that does the most friction there, right?

Because that's just, we're doing it the way that we've always done it. It's even worse than that. I mean, it's the pharmaceutical companies that really support these residency programs where people are trained.

And so, you're paying my bill, I have to follow what you say, all right. We did the most popular functional forum we ever did was called the evolution of psychiatry.

And it was in 2017. One of the speakers was a pharmacist and she spoke about the thyroid mental health connection. That's got 500,000 views. I think it shows me that there's just a ton of interest in this space, but your psychiatrists doesn't know about it.

No, they don't about. Talk about cognitive load. It's too much for them. Yeah, it's just too. Much they don't have the capacity because they're not trained this way.

And I think the medical schools are picking the wrong types of doctors. They're picking people with great memories who can remember algorithms. but they can't really synthesize and integrate from different areas, different silos, you know?

One of the best things that ever happened to me was that I took off six months in medical school on my own to study the human body.

Why Psychiatry Needs a New Standard of Care

And I studied 10 hours a day, six days a week, and I went through all the main course, all of books that we had to learn. And I got to understand the brain and the body, I should say the, body and a brain in a really integrated way.

And that laid the foundation for what I do. So I think it's we're picking the wrong people. That's what, so there's a,

the demand is higher than the supply for the psychiatric residencies.

They get to choose from their group of people and they're, they are choosing the right attributes. Yeah. Well, in medical school, it starts in the people that get into medical schools.

They're good people and they want to help people, et cetera. But what are they measuring? I don't think they're measuring synthetic ability, integrative ability.

Most important, the ability to tolerate not knowing. The ability tolerate uncertainty because you have to sit in this uncertainty in your training for a long time.

You have to tolerate that so you can gradually integrate different models from different perspectives and points of view, eventually to come to your own, I'll call it your kind of theory of everything in medicine.

But that takes time and you have tolerate to that. Most people don't. I was actually taught not to tolerated that, just to narrow my focus, learn one method and do it.

Is there a chance that AI solves that issue by saying, hey, psychiatrist, you're totally out to lunch. You should be doing lifestyle and these supplements and whatever and not this thing.

Maybe, but you have to put in the right question. The question they'll put is what kind of therapy is good for this patient, or is TMS good this for patient?

Or is there another drug or drug combination? That's the questions they're going to be asking. They're not going be saying, can you tell me something?

The patient has actually IBS as well. How could their IBS be playing into their anxiety disorder? And what are the underpinnings of that, and what might cause the Ibs?

What's the root cause of Ips that we know? They're not going to ask that question. A functional medicine doctor will. Integrative medicine doctors will, someone who likes whole psychiatry will Yeah.

Well, I want to honor your journey. When I first came into the industry 21 years ago, 2005, you I knew you were already doing your thing then, right? In Maryland, Right?

I've been doing my thing since really since medical school, but certainly since I went into my internship, yeah. What would you, what would hope that would be the legacy to psychiatry or to, you know, medicine, um, yeah, through from your career and then, moving on in the world beyond.

Well, so I would say that. Your brain, think of your brain as a giant integrator and it's an antenna. It's and antenna for your body. And it is also an Antenna for the outside world.

Aspects of the world we don't even know about. All that comes into your brain. Your brain takes that information, synthesizes, et cetera. But your mind and your body, they're part of the story.

You're consciousness and you're lens with which you approach the world is the key. Yeah. And your level of consciousness is a key, your consciousness as your fundamental attribute, and if you learn how to manage that.

So in terms of legacy, it would be Don't dumb things down. Look for root causes. Yeah. Wonderful. Well, look, I want to thank you for your talk today and thank for you impact on the industry for all of these years.

I know it sounded like, from what I saw off your stage, you feel like you're just getting started. There's a lot more juice in the time. And yeah, thank you for being part of the Evolution of Medicine podcast.

Legacy: Root Causes, Integration, and Consciousness

So many of ideas that you're sharing here, I've been thinking about and really appreciate that. You are taking on this topic because I feel it does have at least the potential to move us forward to a point where this could become some sort of standard of care.

Without it, we're flailing. But I think that we've got a good show here. Thank you so much, James. All right, this has been the Evolution of Medicine podcast.

We're here at the Institute for Functional Medicine. we've been with Dr. Robert Hadea. And we will be back next week with another episode. So I just want to take a minute to talk about the incredible mission partners that we have here, at The Evolution Of Medicine that have made this possible.

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