**Dmitry Shapiro:** 0:00

If you ask chat GPT to summarise a document, it will instantly start summarising it. But who is it summarising it for? Like, let's say, the documents about astrophysics? And so is it summarising it for an eighth grader that doesn't even know what astrophysics necessarily really means? Or is it summarising for an astrophysicist? Well, if it knows, it will summarise differently. So that's just one data point in the sense that you could pass to it. In the exercise of summarization, a human salesperson can do a better job because they can see what the other party is grokking, not grokking. Paraphrase to all of that. That's how websites should be. They shouldn't be sort of pre-created. They should be these interactive things that are human. Shows up, says this is me, this is my mental model, this is the digitised me. I think I'm interested in your product. Explain to me why I need it.

**Craig Smith:** 0:46

Hi, I'm Craig Smith and this is my AI. This week, I spoke to Dmitri Shapiro, CEO of AI, a platform that allows users to create their own generative AI apps without needing any coding, and a platform for distributing those apps, either for free or for profit. Dmitri also talks about mind indexing, a system whereby users feed personal data to a large model to enable custom contextual interactions. Shapiro predicts that digitally capturing the nuances of personal context and preferences will lead to exponential leaps in AI's benefits across education, communication, teamwork and more. I hope you find the conversation as interesting as I did. Hi, good tech solves problems. You know about great tech that solves problems you haven't even thought about. What can the commerce platform trusted by millions of merchants do for you? It's time for Shopify, the commerce platform, revolutionising millions of businesses worldwide. Whether you're a garage entrepreneur or IPO ready, shopify is the only tool you need to start, run and grow your business without the struggle. Shopify puts you in control of every sales channel. So whether you're selling satin sheets from Shopify in person point of sale systems or offering organic olive oil on Shopify's all in one e-commerce platform, you're covered. Shopify powers 10% of all e-commerce in the United States and Shopify's truly a global force, powering all birds, rothies and Brooklyn and millions of other entrepreneurs of every size across over 170 countries. Plus, shopify's award winning help is there to support your success every step of the way. Sign up for a $1 a month trial period at Shopifycom. Slash I on AI, that's Shopify, s-h-o-p-i-f-y dot com. Slash I on AI. That's E-Y-E-O-N-A-I all lowercase all run together. Go to Shopifycom. Slash I on AI to take your business to the next level today. Excuse me, sir, I couldn't help, but over here Did you say Shopify, oh, shopify dot com. Slash I on AI, oh carry on.

**Dmitry Shapiro:** 3:51

Yeah, so my name is Dimitri Shapiro. I am the CEO of UAI. Prior to this, I was at Google for four years, from 2012 to 2016. For the first two and a half years of that, I was running a product on three machine learning teams that were taking all of the simplistically collected data that Google has about people and trying to make sense of it. Prior to that, I was the chief technology officer of MySpace Music for those folks that remember MySpace. Before that, I built two other venture-backed companies. One was a competitor to YouTube called VEOH Networks. It was a major competitor. I raised $70 million for that. Prior to that, I built a venture-backed cybersecurity company called Aconix Systems. So enterprise software cybersecurity raised $34 million for that and from $95 to $99, I built the web team at Fujitsu, a giant Japanese company. I started writing code in 1984, when I was in high school. I was 14 years old. I saw the movie War Games in the theatre and came home and started in my school hacking around on the computer. I have a degree in electrical engineering from Georgia Tech. I've never done a day of electrical engineering. I've always done software. I'm a nerd, just an old nerd.

**Craig Smith:** 5:15

Georgia Tech. I actually wanted to do their online masters in computer science and they said I needed more computer science courses on my transcript, which is 40 years, 50 years old or something.

**Dmitry Shapiro:** 5:34

Yeah, I've never taken a computer science class or even one day of any computer science class. I'm completely self-taught, as is my co-founder here, Sean Thielen, who I just started writing code for when he was like eight years old and is infinitely better than I am actually at it.

**Craig Smith:** 5:56

Yeah Well, last time we spoke you were telling me about there are two sides to UAI. There's the AI marketplace side and toolkit that people can use to build conversational AI chatbots and then deploy them in the marketplace for free or for, if they're paid, to generate revenue. And then there's the other side, which you guys are calling indexing the mind. So can you talk about those two sides, how UAI came to be and what those two sides are about?

**Dmitry Shapiro:** 6:46

Definitely so. When I was at Google, as I said, from 2012 to 2016, I was on the main campus there and working with all of this data that Google had in order to be able to understand people and create better services for them. It became clear to me then that, even though Google has an insane amount of data, being able to use that data and creating real applications from it has a number of challenges. One of the major challenges that are there is that all of that data is quite ambiguous, and so it can be used for doing things like ranking ads and recommending YouTube videos, but it's really hard for you to use all that ambiguous data in creating Google Assistant, for example, and I believe this is the fundamental reason why Google Assistant that this time is still so weak is because Google doesn't have that sort of explicit, disambiguated data to really be able to train and drive that Assistant. And so I had this insight again in sort of late 2012. And now we thought it was the right time to start to do some work on ideas like that, and so we've created what we call a Mind Indexer. Think of it. It feels like TikTok. It's a never-ending feed of full viewport experiences that basically ask you for input so it prompts you with various things. Think like multiple choice questions, open answer questions, a big grid of images and it says tap all the ones that seem yummy. So explicit signals coming out of humans voluntarily about all kinds of things, because you can sort of create prompts about all kinds of things. And so we launched that in May and invited some alpha testers to come and play. Over 5,000 people showed up and started indexing their minds. We've now collected over a million data points against people's preferences and biases and beliefs, and, given sort of any scenario, how they would respond. And so that's that part of it, which is this mind indexing. Part of that and sort of our belief is, long term, that the right way to leverage all of the power of modern AIs, let's say these generative AIs, and they're all neural networks, and neural networks are great at what they're taking a bunch of data and in today's world, a bunch of data that's quite unstructured, so like a data dump, and then being able to tease out statistically meaningful features and start to make predictions and all of that. And so we believe that if humans could sort of digitise their own minds and have a data set that we could then present to AI and say this is me. You figure out what you should help me with and how you could help me. Instead of me trying to figure out how to tie prompts in with my thumbs, maybe the AI could simply figure out what I need. I think one of our biggest problems as humans is we don't know it. We don't know, and so how am I supposed to ask AI to help me with things that I don't even know exist and I don't know that? I don't know it, but the AI could figure out that I don't know it. If you index your mind very quickly, this thing can start to figure out where you have gaps in knowledge, for example, and then fill those in and then help you sort of think about things. So that's sort of that part In a related part.

**Craig Smith:** 10:18

Well, actually, can we stop and talk about that for a minute? Because does that alpha test, or is that publicly facing? It's not on your website, is it? It is, yeah, ok.

**Dmitry Shapiro:** 10:33

I'll go back to that. At this moment it's a bit, I think, hidden because we're promoting the mind studio part of the thing, right, but it is still there and I'll share a link with you so you'll be able to see it and your audience can come play with it and do that. So we'll make sure the link is included.

**Craig Smith:** 10:53

But once you've done this, say you've done it for a year and your UAI has this profile built up who I am. How, then, can I use that, or how do you use that? Is there a function that's built on top of that?

**Dmitry Shapiro:** 11:16

Yeah, so think near term and then long term. In the near term, what we can do with it, meaning what we can allow you to do with it, because you're in control of all this data. It's obviously encrypted. None of our employees have access to it, nor will ever have access to it. That data is simply used by you to be able to, in the near term, take that and pass it in as context into large language models or image diffusion models or any other models that will accept that could benefit from knowing a bit more about the user that is engaging with them. I'll give you an example. If you ask ChatGPT to summarise a document, it will instantly start summarising it. But who is it summarising it for? Let's say, the documents about astrophysics. So is it summarising it for an eighth grader that doesn't even know what astrophysics necessarily really means? Or is it summarising for an astrophysicist? Well, if it knows, it will summarise differently. So that's just one data point in the sense that you could pass it in the exercise of summarization or in the exercise of writing something for you. Write me a blog post, write me a response to an email. The more it knows about you, the more it can take these things into account in its generation of content. And so, in the near term, you get to personalise your interactions with ChatGPT, anthropic Claw Lama, whatever, like any of these things. The longer term our plans with it is again, we're, in a sense, compiling this data set of individual people and also of many people, and we can take that data set and then we can start to either find two existing models or train new models on these parameters that are represented in the output of humans, which is what these models have been trained on, all that stuff that we've written as humans. That's on the internet. That's what these large language models have parsed and been trained on, but they don't have any way of teasing out what created that, because the data isn't there. But we think if we can take that data and merge it, we can do that. Again, that's a longer term vision for that and we think, long term, that's really powerful and important. And again, our vision is that, again, we believe that the right way for humans to really leverage all of the innovation and information technology because these things are going to start to accelerate those right courses. Information technology innovation accelerates exponentially because each new generation is built on the prior. Well, wow, what a massive step forward we've now taken to have these new models and to have transformers and to have new GPUs Like all of this stuff is doing, exponential. There is no way that humans can keep up with that and truly be able to leverage those things by typing words into a text prompt. That just does not make any sense to us, and so we think that, again, long term, the right interface, the right human to digital interface, is of a digitised human, not of a human with fast fingers, yeah, and I'm interested in that.

**Craig Smith:** 14:42

The reason I'm sort of stopping you on it is I am very familiar with a company called Read in Korea. I think I mentioned it to you last time that it has a system that, with knowledge tracing algorithms and recommendation engines and a collection of algorithms that as a student interacts with, it knows what the student is weak on and it can feed it content to improve on that. And through the knowledge tracing and these prediction algorithms it can tell the student what its end score is if it's a test prep or a class is going to be. And the student, the more it follows the instructions, the closer it gets to the student's desired score. It can see its predicted score going up. And what you're talking about sounds like it would have tremendous human I mean tremendous applications in education where a student and this is the sort of thing that kids like swiping through and that it would gradually learn the student at a deeper level. So then when the student is interacting with it, it would be more efficient. It would know what kind of content to recommend. Have you guys talked to anybody about using this for education?

**Dmitry Shapiro:** 16:27

Yes, in our discord again, these early alpha testers. I think it's been clear to all of us that education is smack dab in the middle of all of this, Like that's one of the biggest things. As I said, we don't know what we don't know. All of the vast majority of things that we search for are, in a sense, could be considered as education, whether you're searching for a product or you're searching for whatever other than planning things, that like executing on things. And in education, as it's always been, obviously it's evolved and it's different now than it was 100 years ago, but generally it's been the same, where you have some curriculum that's been created and that curriculum has been created for a large group of people, and sort of personalised learning is something we talk about. But personalised, in sort of modern day, means that it's a bit more finely tuned to a more limited set of people, but it's still generic, it's not personalised. Curriculum isn't created on demand for each individual based upon the things they know or don't know. But that's what a good tutor does. A good tutor understands, by spending time with you, what you know and what you don't know, and then can fill in the gaps, and those gaps are different for each one of us, and they're also obviously a function of time, and so the number one thing that we believe that our mind indexer will need to do is to, in a sense, be a mind reader that this is trying to figure out. Given this situation, what might you choose? Another way of putting it, if LLMs can be described as prediction machines predicting the next token, the next word or so, given some prior tokens. You could describe the TicTac algorithm in a similar way that it tries to predict what video it should show you next that you will engage with. You'll spend more time on what you would like to comment on. Then what we need to do is meaning our algorithm means to predict, given any situation, what might your response be, and in learning, that's basically testing and nuancing and disambiguating and then discovering. Ok, Craig is weak on this. Great, now I need to spend my time helping him understand this, but because I know that he knows this and this and this, I can use these three things sort of his analogies, for example to be able to then get him to see this dimension that he's missing. So education, we think, is at the heart of this and again, if we're successful and other companies are successful in doing this researchers, et cetera is we'll have this incredible world where all of us are going to learn again exponentially faster than we've been getting better at learning, Because we're not going to get repetitive stuff shown to us in various ways, but simply have all of those things filled in for us. Like again, I like to think of it as a jigsaw puzzle, and each one of us have different shapes of jigsaw pieces missing. Well, this thing should be able to figure out what the pieces should look like and simply fill them in for us.

**Craig Smith:** 19:45

Yeah, yeah.

**Dmitry Shapiro:** 19:46

And, by the way, that also then goes to if you extrapolate from there, you could start to imagine that websites are the same thing. Websites are created for the purpose of educating people. Like buy my product, how do I get you to buy my product? I educate you on the value proposition of my product. And today they're all made for. At best you have different landing pages for different personas, but those are still generic. And again, this is why a human salesperson can do a better job, because they can see what the other party is grokking, not grokking, paraphrase, do all of that. That's how websites should be. They shouldn't be sort of pre-created. They should be these interactive things that a human shows up to say this is me, this is my mental model, this is the digitised me. I think I'm interested in your product. Explain to me why I need it. I mean that all goes unsaid. That's the expected relationship. And then the thing simply creates the content on the fly for me, and that's different from the content it would create for this person or that person. Still be about the same product, but using different words, different analogies, different levels of communication, less sophistication, more sophistication, regional constraints all kinds of things that could be marvellous once the thing can figure out who it is talking to? Who's the user? I think that's the number one missing set of variables: who's the user?

**Craig Smith:** 21:12

And then Mind Studio. When did that project develop? It's in my. From what I can see, the tools that allow people to build apps are leveraging generative AI. It's mostly chat bots. Is that right?

**Dmitry Shapiro:** 21:36

No, I wouldn't say that. It's actually mostly things that are like think of them as like AI-driven apps, where the logic of the app is AI, but the app itself might be like. There's a bunch of content generators or things that help you figure out how to name your YouTube video. The output of them is text and sometimes images, and some of them allow you to have a chat window, to continue chatting with it and disambiguate, for example, or get it to do other things. Other ones that are built with Mind Studio don't even have that. They just sort of end and you can start a new activity, like a new document, and certainly you can obviously build chat bots with it as well. And so we now have over 1,000, as of this weekend, ais that have been created in the last month and a half since we launched it, and if you just go to uaiai youaiai you can just browse through over 1,000 of these AIs in categories and many different purposes. Yeah, so how we got to that is again, once we got these alpha testers in to start to digitize their minds and started talking to them again, people were excited about the long-term vision that we've been discussing, but also super excited about like, what could we do with this kind of stuff right now and again. One of the things that was clear is like chat, gpt, claude et cetera can take contextual guidance, sort of part of the prompt or the system message to put them in the right frame of mind to be able to respond to us and get us what we want, and that consumers shouldn't have to be the ones typing this in meaning, if I want to use chat, gpt to generate blog post content for me today, I would need to show up and start typing. You are again you can paraphrase this, but some people get extremely verbose. You are a professional blog post creator with 40 years of experience. Blah blah, blah, blah blah. I'm going to give you titles and you will give me back a blog post. I will need it to be formatted backspace, backspace, backspace, structured. This doesn't make sense for consumers to do, and so it became very clear that it would be awesome to simply build a system that would allow people that do want to do prompt engineering to do that and package that as a simple interface for consumers to show up and just create a blog post, or just get help on naming YouTube videos, or just get a parent and co-pilot, or get a personalised storybook generator for their kids, or get diagnosed with various ailments that they have we have a thing called AI medic. Or get their pet diagnosed with various ailments because we have an AI vet. Or figure out when to plant their tomatoes in Southern California versus Northern California, because we've got AIs for gardening. And so all of those things have been created by let's call them prompt engineers. Motivated people that showed up, created a new project very quickly, created the preamble, the parameters, played around, chose the model. Again, we're a model of Gnostic. We support today GPT-3, 3, 5, 4, cloud 1 and 2, so we'll support many more models, create multi-step automations, and so we've created this Mind Studio. It's an integrated development environment that lets anyone. You don't have to have any real tech skills. You can watch a couple of YouTube tutorials and 15 minutes later, you're a professional AI creator and you can sit down and create these things. Many of them are created in less than five minutes. Some of them may take an hour if you really futz around with them and then you can publish them, and when you publish them, they're just a URL. You can share them anywhere, you can embed them anywhere, you can offer them for free, or you can turn on monthly subscriptions and people get a free tier and then they're asked to subscribe to this thing.

**Craig Smith:** 25:30

Yeah, and on the back end I browse through and I've got a couple sort of permanently open on my computer that I find useful. They seem to be fine-tuned for particular domains, at least some of them, like the medical one you mentioned. How does a user of UAI fine-tune a model for a specific domain? Do you guys have data on your side that you can fine-tune these models on?

**Dmitry Shapiro:** 26:19

We do not. So there are a couple of ways that we've seen people doing it. One way is really not fine-tuning at all, simply setting the right context for the model, for the interaction, for the AI to be able to respond to and explain to it that it is a sort of virtual physician and that it should use its knowledge of medicine to engage with the user in conversation and to ask the user about their various symptoms in other states and then disambiguate for them what might be causing their ailments Sort of not providing any new data to fine-tune the model and doing it in that way. And obviously many people may have seen videos on YouTube already where there are physicians that are playing around with chat GPT and are quite impressed, as many of us have been in other fields. In other fields, like its ability to write code, it's actually quite good already at being able to diagnose and create treatment plans and things like that without any additional fine-tuning. But creating it from a context standpoint. This thing is not a blog post generator, this thing is not something else. It's in the mind, again, of a physician. The interaction, the relationship becomes such, and so it stays in that lane. In doing that, there's another one that's a really powerful vet. Actually, some of my family members have been experiencing problems with their pet and have been using that for that, and it's been extraordinarily valuable in being able to point them even better than two vets that they've seen where now they found things that they felt were like more reasonable as what might be elements there, so we think that's valuable. Another way you can do it is, of course, you can inject additional data into these interactions via the prompts, via the preamble, system, messages, et cetera, and when you deal with models like Clawd, for example, that have extremely large context windows like 100,000 tokens, what's quite a bit of data that you could add if you had it, and then you can use that to your AI and get these models to take that into account and utilise that as well.

**Craig Smith:** 28:42

Yeah, and that was what I was heading toward. I've talked to a lot of people about, obviously about LLMs in the last six months and particularly about the hallucination problem and reinforcement learning with human feedback and fine tuning and, in particular, for something like a medical advice where you really want to avoid hallucinations, the solution has been to build a vector database full of trusted source material. Is there any way with UI, uai, to do that? I mean as a dabbler. So I have a project and I've talked to Pinecone and some other people and they're like yeah, it's easy, build a vector database.

**Dmitry Shapiro:** 29:39

But, yeah.

**Craig Smith:** 29:41

I'm not you don't want to, but if I had a no-code interface and it's like drag these websites or upload the text and the back end will vectorize it and put it in a database or in a partition database where I could have access to it, that would be fantastic. So that's my question.

**Dmitry Shapiro:** 30:12

Not yet, but certainly in the near future. Yes, we believe that's absolutely in scope. Again, you can think of Mind Studio as being, even though we call it an IDE, an integrated development environment, which is typically a technical term. So for things like Visual Studio, code and Sublime and all the other things people have used before, because AI has now made it much simpler to be able to just speak English and explain to it what you need done, that's making things much more accessible for everyone to be able to build things, whether it's using Mind Studio or it's using GitHub, co-pilot, as you're a junior developer developing something, etc. But we're really excited about enabling many more people to be able to create things, whatever they are, and so anything that falls into the scope of doing that, including allowing them to basically get access to vector databases and not have to understand tokenization and any of that stuff it certainly falls in the realm of that. That's not there now. Yeah, today we're a month and a half into this Again, with over a thousand AIs already, but as we move forward, there'll be lots of innovation. Same thing with these automations that we have today. So we have in this middle section of Mind Studio there's a tab for a preamble. There's a tab for model settings where you can control various parameters like temperature or what happens If you overflow the token limit. We built a summarizer. It'll take that and summarise and then pass that back in. So there's a lot of those parameters and also there's a section called Automations that allow you to basically again create workflows. Today there's only two different types of things you can do in that Automation section: collect some user input and craft a message to send. There's a thing there that says more is coming. We really mean it. There'll be a lot of things there that you'll be able to do. By the way, today you can already hit like third party services so you can go to URLs and ingest that content and use that in your interactions with LLMs. You can get users, ask users to give you entire documents. It's basically just a blob of things. So we have things that are analyzers. You can literally sort of copy and paste from your Excel spreadsheet Not even export a CSV just like highlight the cells, copy and paste the blob into this thing. Give it a minute, because it's got to crunch a bunch of data and come back and say hey, I understand what this thing uses. You've given me. I found some clusters and some anomalies and I've got some insights for you. And do you want me to do anything else with it? Right, and so that capability is there already, but more coming soon is an important part of it.

**Craig Smith:** 33:10

Yeah Well, this is fascinating. I don't quite understand UAI's business model, though, because I can build apps for free, I can deploy them on your site, I can earn revenue off your site, I can index my mind on your site. What's? How is UAI getting its revenue?

**Dmitry Shapiro:** 33:38

Well, first of all, we're very fortunate that we have amazing venture capitalists that are allowing us to give all of this stuff for free to people at this stage, yeah, and so the company has raised $36 million, and so we're quite well capitalised. We do have a business model already implemented and more coming soon. One is if you choose to monetize, if you choose to charge consumers for enterprises or whomever your customers for the AIs that you've created, you specify the amount per month today, at subscription Only. We'll have other payment terms coming in your term as well, but today's subscription, we take a cut of that. We take 30%, and so 70%. We make it super easy for you to do. You don't have to have your own sort of API keys to open AI etc. We sort of take care of all of that and we take 30%. The other thing that will be coming soon is what we're calling a Pro Tier. That will give you a bunch more sort of customizations of what your AI can look like and feel like custom domain names, analytics and all these other things. If you're doing it as a business or if you really care about it, then we think you should join that Pro Tier. That Pro Tier is going to cost money monthly. So you as a developer of that it's a business thing like Shopify We'll be able to sort of buy premium services from us and we'll take that cut obviously as well. And those are two big, obvious ones. In the future depends on how we proceed with taking advantage of this. Again, data that is being collected here for users and training models and such there might be lots of value there as well.

**Craig Smith:** 35:36

Yeah, you mentioned the API key to open AI. Do you have a choice of which LLM you want to work with, or do you have, like an orchestration layer that decides, based on the use case, which LLM is the best? I mean, for example, the token window you mentioned with Claude. You know, if you need a very big window, then you'd want to use Claude as opposed to GPD4. So, yeah, how does that work?

**Dmitry Shapiro:** 36:17

Yeah, you, as the prompt engineer using Mind Studio when you're creating this AI, in the Model Settings tab get to choose. There's a default model and then you get to choose which model you want to use, and today we support GPT3, 3, 5, and 4 and Claude 1 and 2, and you actually nailed it. A primary reason you might switch it to Claude would be that you're dealing with larger documents that the consumer is bringing to you, like all of these big summarizers or analyzers or things like that, that require the consumer, the person engaging with the AI, to provide a lot of content that you're then going to pass to the model. You don't want to exceed the window, the token window. Yeah, by the way, eventually you also nailed the other part of it. Eventually, this thing can be intelligent and, depending on what the interaction is and perhaps even with whom, that it can sort of choose which model to use and also obviously could use multiple models and sort of take it and fragment the use case and say, well, this model is going to be great for doing this first step and these two models will take the next couple of steps and then the third model. Once all of this has been formatted, I'm going to give it to this model because it does the best job of being able to create the final output, and so all of that totally makes sense and, obviously, things that we will do.

**Craig Smith:** 37:42

Yeah, so you have a thousand of these AIs built and deployed and presumably you're adding a lot more every week. Is there an upvoting system or something I mean? Otherwise you know who's ever going to find the model that you build?

**Dmitry Shapiro:** 38:05

Yeah, coming soon, not now, and already experiencing, obviously, this challenge. Right now we have an editorial function in the company, so we have a human sitting there and looking through these things and saying, oh, this one is good and we should put it in this category. And so we have categories and we have that. We also, in the community tab, have a popularity score just by usage, and so you can see which things are popular and that can give you a signal that they might be interesting. Ratings are coming, and then you know, get more intelligent, like recommendations, and so you should be able to. This is a discovery problem, as you point out, and lots of things can be done to get the right AIs in front of the right people at the right time.

**Craig Smith:** 38:51

Yeah, from your point of view, are there any that that you use on a regular basis or that friends and family have found particularly useful? You mentioned the vet AI.

**Dmitry Shapiro:** 39:07

Yes, so I am a parent. I have five kids Right Nine year old, seven year old, five year old and one year old twins, and so in my spare time I parent, and you know I've tried to read a couple of parenting books. I have no time to read any parenting books and I can't recall anything I read in those parenting books Anyway, so I feel like I'm sort of struggling to be the best parent. There's an AI called Parenting Copilot. Parenting Copilot uses, behind the scenes, gpt for and again, because GPT for has been trained on all of those parenting books that I would read anyway. Yeah. And then things, studies and all those other things. When you set it up, it asks you to collect personal information to personalise yourself to you. Think of these as like onboarding wizards that regular apps have. These AIs can have that too. This one has just one prompt that says put in the first names of your kids and the year they were born, because it needs to know how old they are. And then, from then on, you can simply, it asks you what's happening and you can just type in you know Diego's upset that Una doesn't want to go to bed and Noah's upset that Diego's making Una upset, what should I do? And this thing comes back and tells me exactly the words to say to Diego and to Una and how to think about it and how to educate them. And I've just found that to be absolutely mind blowing. Lee, like I feel like a super parent, like I feel like a bionic parent, like I've tapped into, you know, the ether of parenting and, on demand, in my pocket I always have this parenting assistant. That's amazing, so that's one that I use all time. Another one I mentioned earlier is there's a personalised children's bedtime story generator and in it it's our onboarding. It asks you for your kids names, it asks you for things that they might be into. It asks you for first names of their friends and then, from then on, it simply asks you what do you want the story to be about? You can even skip that. It'll choose its own story. How many words do you want the story to be? Are there any other keywords you want to include in this story? Three little things and you push a button and it spits out for you every time custom stories that my kids are just enthralled by, because it's about them, it's about their friends, it's about things we're doing Like we're going back to Burning man this year. We're a big family of burners and have been generating stories about Burning man. It's amazing. On that they're actually I mean, it's summarizers. We have a Reddit summarizer. I have no time to read subreddits. You literally paste in a subreddit link, it goes off, grabs it, parses it and summarises the subreddit for it. It's the only way I can consume Reddit. Now, yeah, I don't have time to do it, or one last one. So again, with five kids, they see, especially my nine year old, seven year old, they see things on the news and other things and periodically we like to get questions like, what is this, what is that? And you know, my wife and I sort of look at each other and like, oh, now we got to sort of be creative and figure out how to like get them to understand that, where there are things you know there are multiple AIs now on UAI that do that where you literally give them the age of you know the child you're trying to explain it to and give it the link to the new story and it takes it and then parses it and then summarises it for this child, for a seven-year-old, like try summarising news of Trump's indictment. For a seven-year-old, it's fascinating. When it comes back, it does a radically better job than I would do. Yeah, and doing that, but again there's over a thousand rooms. Those are just some of the ones that I tend to use because I'm deep in parenting.

**Craig Smith:** 43:04

Right, you mentioned images. Does it allow you to output images?

**Dmitry Shapiro:** 43:14

It supports markdown in its output and input and so, using that, you can call APIs that will return images as a markdown and be able to embed those. So we do have some AIs that do that. It doesn't support natively right now calling out to a diffusion model and getting results back, but again, that is in the near term coming, so you'll absolutely be able to do that. And so, yeah, yeah, but today people are hacking around. Basically is what I'm saying.

**Craig Smith:** 43:49

Yeah, how big is the team?

**Dmitry Shapiro:** 43:53

16 and a half people. Part-time, part-timer.

**Craig Smith:** 43:59

Yeah, yeah. And how do you see I mean I ask everybody these days this and how do you see this developing, I mean the proliferation of AI apps and services interfaces? You know? I mean it's really remarkable in the last six, eight months how so many people are using this stuff, even if they don't realise they're using it. And I would guess every appliance, every piece of technology, cars, and certainly urban infrastructure is going to be imbued with conversational interfaces.

**Dmitry Shapiro:** 44:54

I think we are in a profoundly impactful new phase of humans being able to interface with information technology. We've seen these things before. Those of us old enough to remember like I remember going to the library and struggling with the Dewey Decimal System, and then we got the first generation search engines. And then we got Google and that was insane. All the world's knowledge was in our pocket and Steve Jobs gave it to us. It was on our desktop. Steve Jobs put it in our pocket. Andy Rubin showed up, fragmented it and put it in many more people's pockets with Android, et cetera, and so computing has had amazing, giant leaps in our lifetimes. I believe this one is larger. I mean those are all massive, like having the ability to use information technology in your hand or in your pocket. That's incredible. You need that. But I think that these new interfaces to information technology are gonna be even greater sort of leaps step functions and because they are specifically good at being able to learn and then build upon themselves. So not only learn now, but learn and code, and so leverage code to make new things that can learn. All of that is just gonna accelerate Again. If people haven't seen transcendent man or red red curse while that guy's been saying those for decades now, and it's clear. Now we are in the exponential part of the curve and, of course, the issue with that is I believe we have already quite a bit back past the point where we can leverage information technology, meaning, forget AI. There's countless mobile apps or desktop apps I could be using right now to make my life better, to be faster, smarter, happier, more productive, et cetera. I don't have any more room in my head or time in my day to be able to learn to use those or implement them and use them. So I, human, am the bottleneck of that. More innovation does not help me. It only fragments me more, and this is why I think that first part of the conversation that we were having that it's crucial, if we are truly to leverage all of this technology, for us to sort of unblock that bottleneck or at least expand it and transform ourselves into data, into data sets that can be given to these models and basically change the interface between human in all of information technology, and that is the bottleneck. And so I think that's and, by the way, as we do that, as we open that up, the leaps in capabilities that we will see are again profound, like education, one-on-one human communication. One example I could give you is that I've been recently telling people about it's like you know, I've been married to my wife for 10 years now. We've been together for 15 years. I know a tremendous amount of things about her, but still I'm certain that of all the things she is, I know just the veneer. There are countless things that come up over years or decades of knowing friends and they say something and we say how did I never know this about you? It's because we know each other very superficially. Once we digitise our minds, we can again voluntarily choose to say let's overlap. Let's take a look at the data and see the things that we have in common or things that we thought we had in common but where we actually differ Because we never had the time to actually go and examine them and do that one-on-one. That transforms one-on-one human communication. Do that in teams, like the amount of overhead required to run a company and get everybody aligned and keep them aligned or projects is insane. The teamwork is extraordinarily inefficient yeah and once you start looking at it like that, shockingly inefficient, we can make that more efficient.

**Craig Smith:** 49:02

Yeah, and this idea of indexing your mind I'm fascinated by because you have alpha testers that have been using it. I don't know the number of months, maybe a year, three months, three months. But if there were a system that I mean we talked about this last time like the police body cams, the axon body cams, if you had a device that, when you're three years old, you just start wearing and it records all the conversations around you and all the activity and it builds up, you know, in addition to this swiping or answering, over the course of 10 years or so you would have this avatar. In effect, that is really like you, or at least much more like you than anything else?

**Dmitry Shapiro:** 50:08

Yeah, so there are companies out there. One that has been in the news a bit is a company called Rewind, where you can install this thing on your computer and it basically sort of watches your screen and takes snapshots of it and then uses OCR to be able to digitise it and vectorize it, and you can search through it and do all that, and that's amazing, and so you basically get sort of infinite memory or ability to recall things. Right, that's the first thing. It's like you can ask, when did I see this word on the screen? And it'll show you all the instances when you saw it. Okay, great. The next phase of that is that, again, if you give this thing permission I'm not sure if that's where they're going, but I assume it is you can start to say well, let this thing, proactively, sort of like, look at the stuff that's crossing my periphery and then start to make sense of that and give me insights on that. I might not even recognize it, but that's there because it knows I'm interested in it. So that becomes really powerful. You get, basically, recommendations of things. Where all of that, though, breaks down one, I believe, and two, I've experienced with it that Google, where all of that breaks down is another thing we were talking about, of ambiguity. Yeah, it's okay to make recommendations to me for things and help me frame things, but if we ever want to build an assistant that can make decisions, that assistant, imagine if you were you, Craig, but a special kind of Craig. You've been with me since I'm three years old. You've been on my shoulder. You've seen everything I've seen, heard everything I've heard. You've got the mind of an AI Meaning. You can remember anything. You can find meaning in things, statistical significance in things. What you would be able to do is understand what I have seen and said, but many things would still be ambiguous, including the fact that I'm constantly changing. I'm constantly changing my mind, my perspective is constantly changing and the things that I do or see or search for are only a tiny subset of what's bouncing around in my mind. I think what you would do before you could make anything real meaningful, you could do real meaningful work for me as an assistant if you'd have to ask me a lot of questions about the things that you saw me see or engage with and say, well, what about this? Should I then do this, not say no, even though I was doing that that's not what I mean. One example I give people is all of a sudden, you start searching for appendicitis and watching videos. Does that mean you're just curious about how the appendix works? Does it mean you might want to be a physician? Does it mean your tummy aches? What is it? Everything we do is ambiguous, and so if we were to understand how people think we have to understand how they think, and that's different from watching what they do that can be a guide to help you guide the questioning and disambiguation. But that by itself does not do it, I believe, no matter how many years you watch me.

**Craig Smith:** 53:18

Yeah, okay. So what's the next step? You're going to be developing a Mind Studio, you're going to be adding features and functions and you're going to continue with Mind Indexing. Is that or is that project sort of an experiment that's coming to a close?

**Dmitry Shapiro:** 53:44

Yeah, great questions. The next steps that we're taking now is to expand the capabilities of Mind Studio. I was mentioning these automation blocks. Today we have two to collect user info, send messages although they have sort of multiple modes so you can get URLs and get data and all that stuff. There'll be more of those so you'll be able to access third-party services. Ability to be able to do multi-step workflows, hit different models or not necessarily even models other APIs and sort of bring back stuff and then synthesise it. So just much more capability of being able to create things that do even more and more sophisticated things. So that's one area. Another area is, again, we're working on fleshing out this Pro Tier that I was mentioning. That would allow you, as a prompt engineer, a creator, to make it easier for consumers or enterprises, your customers, to engage with different types of UI interfaces, different types of packaging and better ability, better analytics, things like that, some performance improvements, those kinds of things. The mind-indexing stuff is happening as part of all of this. Now the only thing we've really sort of hidden is that sort of never-ending feed of these prompts that we might bring back. We probably will, I just don't know when. It's not scheduled now to be brought back. It is compelling. People love doing it. People got to the end of it because we had a limited number of prompts. We initially had 240-something, then we had 1200 prompts and people would get to the end of it. They'd finish all of them. We'd be like, okay, now we either need to programmatically create these or create more manually, and so we sort of stepped away from that. But it's still available and again, I'll send links to that. But with each one of these AIs, when it asks you for that personalization training thing in this case, the names of my kids and the years they were born, or my writing style to create blog post content, or whatever all of that is driving, I mean all of that is long-term data, encrypted, associated with my profile, and other AIs can ask for that data, and so I don't have to be repetitive, and so we are collecting all of that data and so you are indexing your mind by doing that. When we give you additional interfaces to leverage that beyond, engaging with these AIs created with Mind Studio is a question mark, but certainly we'll come to that as well.

**Craig Smith:** 56:18

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