Welcome to Lesson 2: The Evolution of Chatbots.

We're going to talk about where they came from and where we're at now. There's going to be an inflection point at a time that you probably don't think about. And we're going to just basically just go over a timeline of chatbots and where they entered into our lives.

The progress in natural language processing that allows chatbots to understand context and engage in intelligent dialogue has been remarkable. We are approaching a point where bots will be nearly indistinguishable from humans in conversational ability. This is the founder and CEO of DeepMind, which is an AI research company. You look them up.

And so NLP and machine learning is basically creating massive neural networks that are making chatbots indistinguishable.You just won't be able to determine if you're talking to a bot or human in the very near future within maybe six months to a year. You just won't even know. Is this a human or is this a chatbot? Hypothetically, theoretically, it doesn't matter. I don't know if it answers the question correctly and it gives you the right empathetical answer to your question. Doesn't matter. That's a go sit on a rock question because it’s coming.

So we're gonna talk about the history of chatbots and what's interesting about this is you may not know how old these things are. How old computational, algorithmic, traditional, AI-response chatbots are.

One of the first things that we ever built and that's in 1960. In 1965-1966, Joseph Weizenbaum at MIT, of course it's MIT, but they built it in 1966. And it was an emulation of a psychotherapist. Like you would ask it a question, and it would go and reference material and its training to give you a diagnosis and help you through. So it was basically, talk therapy. It was betterhelp.com before .com even existed. Craziness, right?

And you get in the 70s, which is Parry and Parry was in 72 and that was designed to talk to Eliza. So basically what they did is they created a psychotherapist and then they created a person with mental health issues to talk to each other. And not only was it the first time; it was a representation of somebody trying to use computers to understand mental health which is an amazing thing to do.

Basically they create a neural network of somebody with schizophrenia or sociopathy or psychopathy and then understand how their brain works. So you can actually create unlimited versions of them and then determine at which way their brain actually functions. That's amazing. So, these two things talk to each other. It's the first time of computer to computer talking to each other before the internet, before BBS, before any of it. These two things were connected to each other, speaking to each other, listening to each other.

And then in the 80s, you had Racter. And this was the first time that you had generative AI, and it built a book called “The Policeman's Beard is Half Constructed.” You can find that and read it in the supplemental materials, if you're interested. I'd suggest reading. It's pretty cool.

So now, you have the AI Inflection Point. That's that green line. You're like, “Wait, what? AI was in the 90s?” Yeah. So, chatbots have been around since the 60s. Machine learning and natural language processing AI has been around since the 90s. Like this isn't new stuff. Now it's mainstream so people can look at it and say, “Oh man, this is so amazing.” Yeah, of course it is. Once you allow just the humans in general to start tinkering with things, it starts getting crazy, right? The internet was around for years before anyone could actually use it. And then you've gotten mail and all of a sudden, look at what happened, right?

So in the 90s you have Alice and Alice's in 95 was the first chatbot to use heuristic pattern matching to converse. So meaning it could basically contextually read what you were writing and then respond back and handle novel and disparate inferences. Not like today's AI that's trained on trillions of data, but enough that different people will have different responses. It was ahead of its time. Amazing. And this was in the 90s.

And then in early 2000s, you have SmarterChild and SmarterChild was literally what it sounds like. It was a bot that was allowing you to interact with it based upon intention and based upon your age. So it allows you to, if a kid asks a question and it’s not answering as an adult or in harmful ways. It was used it in their chat rooms and it was self-moderated. It was way ahead of its time. So again, you've got mail pushing things forward, sending out those CDs, right?

Then 2010. This is where it took off, right? In 2005, there was an inflection point. In 2005, specifically in like July of 2005, there's an inflection point of chatbots. This natural language process conversational AI took off about the same time that Boston Dynamics really started taking off. So there was like some inflection point somewhere in the big brain that allowed humans to move forward in about 2005. But in 2010 is when it hit the consumer products.

And that's when it's over. And that's why like GPT has taken over so fast. GPT 2 has been around since like 2012, 2013. GPT 3 has been being trained since 2017. So it's not new. All this stuff has been around for a long time, but as soon as it hits consumers, like the general public gets it, now you're talking millions and millions of iterations versus thousands.

Okay. So in 2010, everyone knows what happened. Hey, Siri. Hey, Google. All these things. You had, Hey, Alexa voice-activated everything. You can turn your fridge on from your phone now, right?

So in 2020s, now you're here. Started from the bottom with Eliza, now we're here. So, you got GPT 3, GPT 4. Now you got GPT 4.5 coming that can actually read the internet and can parse and can start having random memories. You start giving it RAM, so it can start remembering its own chats. It's starting to be able to take different inputs, reading and images and audio and PDFs.

And you can use Claude to upload a 15-20 page PDF and ask it about it and start doing zero-shot training based on just a straight PDF. So the thing that would take you years and years and years, you literally can just do in a chat interface. Baby steps. Okay?

What's next?

Real AI. Actual predictive future from the past type stuff. Start giving you predictive analysis for business intelligence. The sky's the limit. There's no limit of what's going on. So, you look at what happened from the 60s, 70s, 80s, 90s. This is really where it started taking off. 2005 was really where it started taking off but the AI inflection point was in like 96, 95.

So to look at all this stuff and think, “Oh man, this is new?” It's not new. It's been forever. We've been here. We've been grinding on this stuff. It's just now people are paying attention so it seems crazy and new. But we've been grinding on this since I've been taking computer science classes in the 90s. So it's not going anywhere. So get in front of it. Learn where we came from. But where we are now is where we're really concentrating.

In the next lesson we're going to really talk about the era of the AI chatbot. Where we're at right now? And in 2023, what does that mean? How can you use it? Where you can utilize AI within the chatbot? How you can grab GPT by the horns in your chatbot and become a hero?

So hopefully you learned something. You saw that 66, man. We've been around forever and then in the 90s was when the inflection point happened. 2005 is when we really started cramming on this natural language processing stuff. To think that this is like a couple of years old, nah. Read the supplemental. Get the history.

We'll see you in the next one. We'll start talking about the stuff that you really care about: AI and chatbots today.