

## 6. Artificial Intelligence

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Terrie Lambert, 16.12.2022

### Youtube Video

<https://www.youtube.com/watch?v=384-vpYvQn8>

#### [00:00:05.760] - Terrie

Our loving guide in heaven. We thank you for bringing us safely through another week. We watch what has happened across the world and in this country and it is deeply disturbing. We ask that you would enclose us in this Sabbath with your protective care and guide us with your truth. We could be swept up in so many conspiracy theories, we could be following any wrong path of information, but you have supplied us with the manner of heaven. We have drunk in the rain. And lord, we just want to continue to do that. As we look at other aspects of the counterfeits that are offering different information to people, help us to learn from that, that we can apply it in other areas. We ask for your holy spirit to help us to apply the tools that have been provided and come to a greater understanding of external events and how they are to affect us. We leave ourselves in your care, thanking you in Jesus name. Amen.

#### [00:01:23.110] - Terrie

Last week we started by doing a basic review of the counterfeit. We're told in Isaiah 14, Lucifer said, I will be like the most high.

#### [00:01:36.500] - Terrie

I will be like the Father and the Son and the Holy Spirit. And in counterfeiting, the three persons of the Godhead, the heavenly trio, the triune God, he created, the dragon, the beast, and the false prophet. They all represent counterfeits of the heavenly government. We recognize that while the beast is the counterfeit, there are also other counterfeits. And we've been focusing on the dragon, the counterfeit that we can find under the umbrella of the dragon power. We saw that they're all beasts, but one is the beast. They're all counterfeits, one is the counterfeit. And we are just looking at a counterfeit. The counterfeit that we've been looking at is a particular branch of effective altruism movement called longtermism. Longtermism is really born of EA, effective altruism, and it developed from there. It was born of EA. And if you can cast your mind back, can you recall anything about the EA and longtermism that would be particularly counterfeiting what we believe in? And I know a week a short time and then it's a long time, depending on how you see it.

#### [00:03:28.010] - Terrie

But Katherine, what were the counterfeits that stood out for you? Counterfeit.

#### [00:03:35.320] - Katherine

Sure. One of them, I'll say one. About giving one 10th of their income was something that struck me as a counterfeit.

**[00:03:47.500] - Terrie**

Yes. Yeah, that was a nice really obvious, didn't it? Stand it out. It's like, how can we get everybody to give 10%? Sounds like a good idea. Yes, they don't call it tithing. And Katherine connected with that 10%. What did they do to assure themselves that they would pay the 10%?

**[00:04:16.280] - Katherine**

I'm thinking, what did they do?

**[00:04:21.400] - Terrie**

Where do we find out 10%, where do we learn about that?

**[00:04:27.020] - Katherine**

We learn it from the Bible. Is that what you mean?

**[00:04:31.180] - Terrie**

Yes, but we're preparing for baptism and we're getting to learn all the basics. The vows. They didn't have vows. What did they have?

**[00:04:41.840] - Katherine**

Yeah, they had a list of some principles. I can't remember.

**[00:04:47.360] - Terrie**

They called it a pledge. They pledge their 10%, we vow our 10%. Thank you, Katherine. Anything else that stands out? What a longtermists concerned about? Ray.

**[00:05:21.710] - Raymond**

They're concerned about existential crisis that might happen in the future. They're really focused on saving as many people as possible, regardless of how far distant that is from us, in time.

**[00:05:39.110] - Terrie**

That's right. And how are they going to save them? How could they lose them? How could we lose all those trillions of people that might exist in a billion years? How could we lose them?

**[00:05:58.010] - Raymond**

Preparing against some sort of existential crisis? Whether it be like artificial intelligence. Was it that?

**[00:06:07.880] - Terrie**

What are they counterfeiting?

**[00:06:13.090] - Raymond**

Was it like our prophetic mindset of trying to save as many people as possible through the message?

**[00:06:23.400] - Terrie**

This catastrophic risk, that could be an existential risk, what would that mean for the world? How would that affect the Earth?

**[00:06:40.310] - Raymond**

It wouldn't be habitable for humans anymore.

**[00:06:44.870] - Terrie**

And what do we believe?

**[00:06:48.550] - Raymond**

That climate change is making the world uninhabitable for humans?

**[00:06:56.140] - Terrie**

Is that part of our being a Seventh-day Adventist?

**[00:07:04.400] - Raymond**

Not for mainstream Adventist, but we understand that that's in the true stream.

**[00:07:12.580] - Terrie**

Okay. Katherine?

**[00:07:19.620] - Katherine**

Is it that we have our end of the world scenario and they have their apocalyptic end of the world scenario as well? It's very similar.

**[00:07:33.580] - Terrie**

They're worried about an apocalypse, and we know there's going to be apocalypse. We know that there is an existential risk for this earth catastrophic. You're kind on the right track, Ray. You just weren't kind of getting to the point. But are you okay with that now, Ray?

**[00:07:54.560] - Raymond**

Yeah, I was getting stuck in the weeds. The little details. Overthinking it.

**[00:07:59.250] - Terrie**

Yeah. We have to put the other hat on. As we compare the false with the true. We have to put our different hats on. We have to put our Adventist hat on and think, well, how are we similar to them? They're worried about an apocalypse. I wouldn't say we're worried about it, but we recognize there's going to be one. I'm sure there's Adventists that worry about it. Josephine?

**[00:08:30.860] - Josephine**

I was going to say something similar to what Katherine has said. She virbulized it pretty much for me.

**[00:08:39.200] - Terrie**

Okay, no worries. We'll rub out this at the top, I think. We've got tithing. We've got an apocalypse. Anybody think of anything else? Why do they tithe? Why are they effective altruists? What does that mean? Katherine?

**[00:09:40.470] - Katherine**

Sorry, I just muted. Well, I think that this gives them a sense of having a sense of morality, that they're working for the greater good, that they can have morals even though they don't believe in God. And it gives them a sense of that they're doing something moral for others. I can't remember.

**[00:10:09.570] - Terrie**

They want to give. How do they want to give?

**[00:10:13.410] - Katherine**

They give based on a mathematical calculation to work out how to help the most amount of people. It wasn't to be based on emotion. I remember you taught us that. They wouldn't even let their own personal feelings get in the way. It does sound really altruistic, even if it was someone they really cared about, they would put all that emotion aside and be selfless. It's kind of this false selflessness, in a way.

**[00:11:00.180] - Terrie**

When you think of their organization called 80,000 Hours. People want to give, people want to help. And they say, don't join an NGO, don't go and work for International Aid. How are they getting them to be the most effective, to help?

**[00:11:25.450] - Katherine**

Yes. You earn as much as you can. You go for a really high end job, get a huge income, so you can give as much as possible.

**[00:11:37.710] - Terrie**

This movement doesn't want you to go out and work for Wall Street and get a high end job, but it does say get a job. The amount of people that have said to me, I'm thinking of going full time. Full time what? Get a job. You want to help? We got zoom to pay, we've got Bible workers to support, et cetera. To be more effective in this movement isn't for everybody to give up their jobs and go full time, whatever that means. It's to get in your workplace, create a sphere of influence, be productive, let your altruism be effective. That's the most effective it can be. Participate in the zooms. With EA they participate in all sorts of gatherings and blogs. That's how they want them to be effective is to get it out through personal contacts, but not all giving up your jobs to go and work for an NGO. Can we see the analogy there? Ray?

**[00:12:59.470] - Raymond**

Yeah, I was going to say something similar to what Katherine said. How they won't give based on emotion. They'll do formulas to make sure they can be as effective in speech marks as they can. But we saw that that was false. They do feel emotion. They feel good about giving. And so it is quite a sort of selfish emotion that they end up feeling, as opposed to being in the movement where we give tithe because selfless reasons.

**[00:13:42.550] - Terrie**

And there's a sense of duty, too. It's okay to have a warm and fuzzy feeling about giving. It's okay to want to be effective. And so we try and get people to be effective in their support of the ministry, and that involves more than money. That means taking part, et cetera. I don't want to say that it's wrong for them to feel good about their giving. The problem is when that giving is based purely on mathematics. We have to weigh up those two things. Sorry, Josephine, you've got your hand up twice. Effective giving, being effective, doing what would have the better outcome for the movement. There was another thing that we discussed last week. Brenden.

**[00:15:18.670] - Brenden**

It forgot a lot about last week, but this triggered my memory. Is it neglecting the present suffering to focus on the future unborn.

**[00:15:36.300] - Terrie**

Yes. You can get a warm fuzzy feeling because you feel like you're contributing to a greater need, and then you don't have to worry about the 15,000 children that are dying of neglect every day, because you're doing a greater good by contributing to the trillions down in the future. Sorry, Brenden.

**[00:16:04.490] - Brenden**

No, sorry, I didn't mean to interrupt you. Go.

**[00:16:09.480] - Terrie**

Well, it's a way to feel like you're doing good for rich, privileged people. To feel like you can keep and enjoy your capitalism and still feel like you're doing something marvelous for a lot of people and ignore the suffering around you. Yes. Thank you. Brenden. Did you want to add anything more, Brenden?

**[00:16:45.180] - Brenden**

No, thank you.

**[00:16:49.180] - Terrie**

Josephine. I don't know if you're unmuting yourself, but you've had your hands up. Okay, we'll go on. There's a couple more. We talked about posthumanism. Does anybody remember what we learned about post humanism last week? Fellow called Nick Bostrom. A lot of these people are posthumanists. What was posthumanism? Katherine.

**[00:17:34.260] - Katherine**

Is that when he thinks we are already evolving. That we are on our way. We are post human already or nearly on our way.

**[00:17:50.860] - Terrie**

It's what we will attain to.

**[00:17:54.620] - Katherine**

We're transitioning.

**[00:17:56.950] - Terrie**

We're still evolving. Because of technology, because of perhaps putting our brains onto computers, cryogenics, technology increasing at exponential rates, that we will learn more how to overcome death, et cetera. We are evolving to become posthumans. So that we could go down in those billion years time, we would be living in a kind of utopia where all the problems of this present world would have been solved because of technology. And we are heading to be post human. Does that ring a bell with anything we Adventists believe? Katherine?

**[00:18:47.090] - Katherine**

Well, sorry, I don't know if I should be letting someone else have a try. I can mute.

**[00:18:56.400] - Terrie**

Well, you're the only one with your hand up. All right.

**[00:19:01.040] - Katherine**

I'll keep going. Yes. We believe that we will have better bodies. We will resurrect, we will be posthuman, I guess. Do you want to use the same terminology?

**[00:19:16.920] - Terrie**

Yeah. This model will put on immortality, this corruption will put on in corruption. There will be no more sin. It'll be a post human world. There's similarities there. We can't condemn them for striving to be posthuman because that's what we're doing. They're just going about it a different way. There's one more thing that we didn't actually talk about much last week, but it's there. When we look at the influence of Peter Singer and especially if we go back to 1975 and his papers on animal liberation that started the animal liberation movement and his thoughts on speciesism, there's another thing that the EA movement has in common with us because of this belief that was carried through and evolved into effective altruism. Anybody? Any thoughts? What are they very strong on? What do they promote stemming from this? Ray?

**[00:20:37.830] - Raymond**

Wasn't it the plant based diets? Because they say all animals are equal. If we're going to suggest that all the races are equal, sort of implying that they're not, then all the animals are equal as well.

**[00:20:54.090] - Terrie**

Yes. Don't need animals. Strict vegans. Thank you. Yes. There's a few things that we can add to the list of where we can see similarities between their movement and ours. What they're working towards and how they're doing that. Longtermism, it is born of the EA movement and if the effective altruism was just a religion for white privileged males and philosophers and academics that wanted to feel good, feel like they were contributing to society, then that would be okay. They're just wanting to quantify how they're giving to charity. But longtermism is saying that the number one priority of being effective is to concentrate on improving the situation that will stop any existential risk. Money funding goes to stop rogue artificial intelligence running away and taking over the world and killing all humans. The main fear that they have, and the main thrust of what they believe is geared towards creating and controlling artificial intelligence. Because you've got to create it, otherwise we're never going to be able to improve the world in a billion years time.

**[00:22:37.350] - Terrie**

We need it, but we also need to be able to control it. They call it aligning, aligning artificial intelligence, aligning it up with our values. And then you got the problem of which values are you going to align it? If it was just the academic musings of rich people, that would be okay. But we have a situation where these philosophies are being funded and promoted by very rich, very influential people. The effective altruism movement is sitting on \$46 billion at the moment. Let's say it was sitting on \$46 billion. It might have to give some of that up because of the collapse of FTX, the cryptocurrency, which you've probably all been well aware of. Hard to hide from it. But it's essentially sitting on a lot of money and most of the time they are worrying about how to spend it. Because they've got to spend it effectively. There's a lot of paperwork

and musings and discussions on where to best put it, but there's a big, big money and a lot of influence. When we talk about Toby Ord especially. He has spoken to a lot of United Nations gatherings, he has quite an influence with the UN, has written papers for them, been on committees, they lobby governments.

### **[00:24:21.630] - Terrie**

It's quite an influential movement. So we looked at three characters. We started with Peter Singer, the original philosophy of Utilitarianism. But we looked at Toby Ord and William MacAskill and Nick Bostrom. These three people, largely influential, wrote three books. Bostrom, in 2014, he wrote the book *Superintelligence Paths, Dangers, Strategies*. It argues that if machine brains surpass human brains in general intelligence, then this new superintelligence could replace humans as the dominant life form on Earth. That's the fear. That machine brains will surpass human brains and become the dominant life form. Then Toby Ord in 2021. All of these men were influenced by Peter Singer. But he was influenced by Singer and Bostrom, and he wrote the book *The Precipice*. It's called *The Precipice: Existential Risk and the Future of humanity*.

### **[00:25:50.490] - Terrie**

It explores the science behind the risks we face. It puts them in the context of the greatest story of humanity, showing how ending these risks is among the most pressing moral issues of our time. When they write this up in their books, they're being a little bit untrue. In their papers and on their blogs and in the websites, they actually say it is the most pressing issue of our time.

### **[00:26:30.290] - Terrie**

But when they write these books and on the covers, they'll say it's one of the most pressing issues. And when they do their book tours. But you won't find that in their academic papers. What they push behind the scenes is, it's the most pressing issue of our time. And then in 2022 this year, William MacAskill wrote, *'What We Owe The Future'*. And he argued for longtermism. The idea that positively influencing the distant future is a key moral priority of our time. From this perspective, it's not enough to reverse climate change or avert the next pandemic. We must ensure that civilization would rebound if it collapsed, counter the end of moral progress, and prepare for a planet where the smartest beings are digital, not human. What do we have to prepare for? Down the track, the smartest beings are going to be digital, not human. This is a New York Times bestseller. Elon Musk comes out and says, everybody's got to read this. And he said the same with this book here. This philosophy is what mostly aligns with mine. Big write ups, huge speaking tours, New York Times articles, Washington Post articles, Vox articles.

### **[00:27:57.260] - Terrie**

And I might add, for those of us who have been fans of Vox. Vox was begun in 2014 by three effective altruists. And when we talk about sifting the left, we have to sift Vox. They have a certain arm of their media that is just designated for EA. I don't know if I've got one up. I'll bring one up next week. It's easy to see once you know the logo. When you see that logo, you go, okay, this is an EA article. It has got a lot of good things on it. But you got to sift very pro EA. Ezra Klein and the other two are very much involved in promoting the EA community. Longtermism is a religion. The enemies are not the devil and demons. It's

rogue artificial intelligence. It provides them with a meaningful life and the promise of potential eternal life. And that's what we want. We want meaning. We want purpose for our existence, and we also want that potential for eternal life. It has an immediate appeal to richer individuals who want to think of themselves as good people, but really just aren't that moved by the fact that there's something like 15,000 children dying of hunger related illnesses every day.

**[00:29:49.570] - Terrie**

They want to worry about the poor that around us. Let's feel good about the greater good. What we want to look at tonight is artificial intelligence. Because this is where all their money, influence, wealth, talent, resources are being funneled. Into AI. There are two companies in particular that we would mention. The first one is Deep Mind. I'll write it here. Deep Mind. It was bought by Google in 2014. DeepMind is a British artificial intelligence subsidiary of Alphabet, Inc. Alphabet is the parent of Google, and it's based in London research centers in Canada, France, and the United States. And the other one we want to consider is OpenAI. OpenAI came a bit later. I'll write it here. I think it was 2015. OpenAI. It was founded by Elon Musk and Sam Altman. Musk is no longer on the board, but he still funds it. There was a group of wealthy men. They all put in \$1 billion each, and Microsoft put in another billion. You had individuals, and you had Microsoft put in a billion, and they created OpenAI.

**[00:32:01.940] - Terrie**

If you're familiar with Dall-E 2 and the Chat GPT3 that has been talked about in the news recently. That's all OpenAI work. The company is considered a competitor to DeepMind. It conducts research in the field of AI with the stated goal of promoting and developing friendly AI in a way that benefits humanity as a whole. We talked about that earlier, about how there's a difference between AI and AGI. And for the purpose of what we're going to be doing, we're just going to say AI. But understand that artificial intelligence is around for quite a while. It's in our phones, it's in the supermarkets. It's in online banking. Artificial intelligence is with us in a lot of areas. Artificial general intelligence is where they want to get AI up to human level thinking and understanding. They're not there yet. We're just going to say AI for tonight. But there is a difference between AI and AGI. And that difference has evolved over time. Because once upon a time, they thought: Oh, if we could get a machine to do this.

**[00:33:59.150] - Terrie**

It'll be equal to a human brain. And they got the machine to do that and they realized still not equal to a human brain. They keep wanting to improve the artificial intelligence, but they have got nowhere near human capacity yet. But they think they have. That's the problem. That's what we want to talk about tonight. But we're just going to call it AI. When Bostrom wrote his 2014 book, he was predicting Singularity by 2029. Singularity is a hypothetical future point in time in which technological growth becomes uncontrollable and irreversible, resulting in unforeseeable changes to human civilization. AI eventually enters a runaway reaction of self improvement cycles, each new and more intelligent generation appearing more and more rapidly, causing an explosion in intelligence and resulting in a powerful super intelligence that qualitatively far surpasses all human intelligence. Boston predicted in 2014 that in 2029 there would be a super intelligence. That there would be an explosion in this technology that would take

AI to a level that would far surpass human thinking. And that's when it would become dangerous. That's why they put in the effort to implant the right values when they're creating this AI, so that it won't kill us all.

**[00:35:53.000] - Terrie**

In his book, he talked about these hypothetical situations. Let's create an artificial intelligence that is going to make paper clips. And it gets so focused on making paper clips that it is going to take every raw commodity. Whatever is in the Earth, it's going to harvest it all to make as many paperclips as it wants. And it realizes it doesn't need humans for paperclips, so it kills humans. There's these types of stories, the paperclip story and others too. Like, how are we going to solve global warming? Then we have to kill all the humans because they're the ones burning the fossil fuels. These are the stories that Bostrom is telling in his 2014 book. So in 2029 we're all in trouble. What is artificial intelligence? The definition is, it's an automated way to carry out tasks that humans can already perform. But instead of getting a human to perform it, we get a machine to do it by putting data into that machine. That's what artificial intelligence is. A machine that can do something that a human can do.

**[00:37:29.540] - Terrie**

We need to program it to do that. We just want to get that machine to do something that is equal to what a human can do. An automated way to carry out a task a human can already perform. One thing to understand about AI is that it was a term that was coined in the 1950s. There was this famous conference where this group of men got together and they were discussing artificial intelligence. They didn't call it that until they came to this conference. And then one of the men there coined the term artificial intelligence. Later on he was very unhappy with that name. And people have been. The problem is, it's stuck. Because what they want to create isn't artificial. They don't actually want something artificial. They want intelligence that's real. That's one problem with the name is they want to create something real, not artificial. The other problem with the name is nobody really understands intelligence. What is intelligence? What makes something intelligent? The word intelligence is very vague. And so the name itself is a problem and they recognize that, but it's stuck. But it gets used, which is a problem.

**[00:39:15.760] - Terrie**

Since the 1950s when AI research took off, it went through cycles. There have been AI springs and AI winters. During an AI spring there's a lot of hype that gets built on this technology. We're going to do this. Back in the 1950s, they said, we're going to create these perceptatrons. And then what happened was that the New York Times ran an article saying perceptatrons are going to have human consciousness. There's a hype created. The media gets on board. The hype increases, which means funding comes. Funding comes, they're able to do more with the technology. There's technological growth, but they promise things that never happen. So Pessimism sets in. With that Pessimism, the media grabs hold of the Pessimism, the funding decreases, and then artificial intelligence goes into a winter period. This is a cycle that's been around a couple of times now since the 1950s. There's hype that is promoted through the media. Funding all comes rushing in. There are improvements. Things don't eventuate. There's pessimism. The media plays on the pessimism. Funding stops. People still keep working on the technology, but it doesn't improve at the rate that it had been. We are currently in an AI spring.

**[00:41:11.730] - Terrie**

They're calling it a golden age of artificial intelligence, but there are those that are predicting that there's a winter around the corner. In 2019, Elon Musk said we'll be driving autonomous vehicles at the end of the year. And it's 2022, and we're no closer to autonomous vehicles. It's that kind of thing. Where are these cars that we're not having to steer? They're not here yet, and we'll find out why later on. There's a cycle with artificial intelligence. Oh, it's 2016. He announced the concept and then he said it would be ready in 2019. We've looked at three men, four if you count Peter Singer. I want to introduce you to a woman, and her name is Melanie Mitchell. Melanie Mitchell is an American scientist. She's been around a long time, very well known in the technology industry. Might not be a common name with us. These names don't make the media like the others. However, she has written numerous books, many articles, thought papers, and she's written for The New York Times a number of occasions.

**[00:43:10.020] - Terrie**

She is a known scientist in the United States. Actually, this is her website. Here is Melanie. And this is a book that came out last year, artificial Intelligence a Guide for Thinking Humans. An excellent book. She's done a lot of interviews about that book that you would find online. But in 2014, she wrote a paper in response to the hype that was surrounding this artificial intelligence scare fear that people like Nick Bostrom and others introduced. I'm just naming the leading personalities, but there are many on that bandwagon. She wrote a paper. And it's called 'Why AI Is Harder Than We Think'. This is just a reprint from 2021. But she wrote this originally in 2014. And what she sets out in this paper is there are four fallacies, four misunderstandings regarding artificial intelligence. And so we're going to take a look at those. We'll just read the beginning introduction. The year 2020 was supposed to herald the arrival of self driving cars. Five years earlier, a headline in The Guardian predicted that from 2020, you will become a permanent backseat driver.

**[00:45:33.620] - Terrie**

In 2016, Business Insider assured us that 10 million self driving cars will be on the road by 2020. Tesla Motors CEO Elon Musk promised in 2019 that a year from now we'll have over a million cars with full self driving software. Everything. And 2020 was the target announced by several automobile companies to bring self driving cars to market. Despite attempts to redefine full self driving into existence, none of these predictions has come true. And then she'll go on to explain AI winter's, AI Springs and how they work and how the cycle goes. And we're on our way to an AI winter, because the Hype is not being fulfilled. We're going to scroll down. Fallacy number one, according to Melanie regarding artificial intelligence: Narrow intelligence is on a continuum with general intelligence. She's explains that there are amazing breakthroughs with AI. They created, for example, a computer that can play chess, and it beats master chess players. And so what people think is, okay, we're on our way to human compatibility because we've got a computer that can play chess and beat a human at chess playing.

**[00:47:28.130] - Terrie**

Back in the 1950s, 1960s, etc, they always thought that once we had a computer that could play chess and beat a person, that's it, that's a pinnacle. Well, they created a computer that could do that, but that's all it can do. It can't take that ability to play chess and transfer that to something else. It can only play

chess, play chess really well, but it doesn't mean that it's on a continuum like that. It's going to mean that we're getting closer and closer to human capacity. Doesn't mean that at all. It's a narrow intelligence. It's something that can do one particular task, but you can't connect it to anything else. That can do another, maybe equality, brilliant task. It's not on an exponential curve or any curve. All you can do is improve that machine that plays chess. You can't really transfer that to any other technology. Basically it got to start again. These machines are just big calculators. It's all math. It's all code that is placed into these machines. You want something to do something else, you have to put new code in. That's one fallacy, that when you achieve something that automatically means you're going to be able to achieve something else.

#### **[00:49:09.400] - Terrie**

And it doesn't work like that. That's a fallacy. When it comes to artificial intelligence. The other thing, fallacy number two: Easy things are easy, and hard things are hard. And this is where the title of her study comes from, 'AI was harder than we thought'. The explanation is that we think playing master chess is the most intelligent thing a person can do. We deify master chess players. That it's the pinnacle of intelligence to be able to win those games. And the thing is, what's hard for us is actually easy for a computer. We can't add up things very quickly with long numbers. It's easy for a computer, it's just like a calculator. Things like that are very easy. But what is easy for us is hard for a computer. What is easy for us is common sense. And common sense is hard for a computer. What is easy for a toddler? A toddler can walk into a room and walk around things and walk over things and can put her bottle on a table, turn away and know that that bottle is not going to move unless somebody takes it.

#### **[00:50:59.260] - Terrie**

That toddler knows that if they put a ball on the table that that ball will roll away. What a toddler can learn when they're twelve months old is really, really hard for a computer. This is called Moravec's Paradox. It's a paradox that we are not cognizant of how difficult the simple things we do are. See if she gives some examples here. I might have another article on that. Here we go. I found it. She's being interviewed. The question in 'Why AI Is Harder Than We Think' you address four fallacies that can make AI seem easier than it really is. And she answers: there are certain tasks that we humans think of as very hard and take a lot of intelligence. And one example might be playing chess at a grand master level. We deify these chess players who can play chess and we think of that as requiring a huge amount of intelligence. And yet it turns out that the game chess is much easier for computers than a game like tag that you might play on a playground. Because robots have trouble navigating, they have trouble often tracking where people are, they have trouble predicting their movements and so on.

#### **[00:53:07.180] - Terrie**

The easiest game for a four year old child turns out to be much harder than the hardest game for a human. This is the idea that things that are easy for us often are hard for computers. And so if a computer does something that's really hard for us, we assume it's going to be able to do all the things that are easy for us. But that's actually not the case at all. When we think chess is such an intelligent game, we'll come back to that at the end. But there are actually other games that prove much more intelligent for us to play that computer could never do. If you think about the game Charades, the party game, where you got to guess a word, that involves so much more complex thinking. It involves our vision, our lot of sensory

perceptions, a lot of brain, analogous brain work to play charades. It's actually a computer could never do it. It's way too hard for a computer. And we would think, oh, that's silly game. But that silly game takes a lot of intelligence. So, any thoughts?

**[00:54:27.360] - Marie**

It would be a bit like a parable, wouldn't it? Charades.

**[00:54:34.180] - Terrie**

Yes, exactly like a parable. And we'll get to that, Marie. Yes. Thank you for picking that up. Parables are impossible for a computer, but they are a sign of intelligence.

**[00:55:00.630] - Josephine**

Terrie!

**[00:55:02.650] - Terrie**

Yes. Josephine.

**[00:55:04.020] - Josephine**

I think a computer has problems reasoning. Human beings can reason much better than the computer.

**[00:55:14.670] - Terrie**

That's going to take us to fallacy number three. Thank you, Josephine. Hold that thought. Fallacy number three: The Allure of Wishful Mnemonics. Now, what does that mean? It's talking about anthropomorphism. What is anthropomorphism? It's when you've given inanimate object, human like characteristics. What was the word you used, Josephine? Reasoning. Yeah. Computers can't reason. Computers cannot understand, they cannot see, they cannot learn. They are not taught. When we use all that language, what we're doing is we're anthropomorphizing. We're putting human capabilities into a machine. And we're so used to doing it because we make analogies all the time. But that is what contributes to a misunderstanding of artificial intelligence, not just by laypeople, but also by scientists. When they say the computer is just thinking. Computers don't think. Computers are just mathematics in a box. What did they use the word here?

**[00:56:49.130] - Terrie**

Deep mind. Deep neural thinking. Yet neurons are something that belongs in a human mind. Computers don't have neurons, but they use the word neural. It makes it sound like it's humanlike. And we use all these words to describe how these technologies work, machines, computers, and they don't do anything like what those words suggest. They don't think, they don't read, they don't listen, they don't see. Even though they may have cameras, they don't see. That's not seeing. They certainly don't understand. Does that help Josephine? They don't reason.

**[00:57:39.450] - Josephine**

That's right. Praise God.

**[00:57:46.750] - Terrie**

That was Fallacy number three. Fallacy number four. Intelligence is all in the brain. That's something they get very wrong. And what Melanie will talk about here is embodiment. I forgot Rachel.

**[00:58:18.280] - Chris**

No, sorry. It's Chris.

**[00:58:20.280] - Terrie**

Chris. Sorry. Chris. You got to change his own name.

**[00:58:25.480] - Chris**

I'm not too technosavvy yet. Just thinking about artificial intelligence and the idea of computers thinking. I heard it pointed out that there are more connections in a single human brain like the synapses in one single human brain than all the switches in all the computers, servers, all the computer equipment on the Earth. That's how vastly different the human brain is from computer technology.

**[00:59:06.840] - Terrie**

You can't compare them, can you? But we do. We do because we use the language. We do it even with our own phones and laptops. But you can't compare. Thank you, Chris. We'll be looking at that if we get time. Ray, did I miss your hand?

**[00:59:36.800] - Raymond**

It's okay. It's just a thought I had a little bit earlier. It's connected to the anthropomorphizing. I think it's interesting that all these men assume that artificial intelligence is going to turn aggressive. Because that's what they've been socialized to think about how humans behave. And especially because a lot of the software has been written by men, that's their foregone conclusion that machines and artificial intelligence is going to turn aggressive.

**[01:00:17.100] - Terrie**

And it's not just that it turn aggressive, it just doesn't care. It might not even be aggression. It has no feelings, they're not capable of feeling. If you can't think, you can't feel.

**[01:00:37.540] - Raymond**

It would be the ultimate EA. Right?

**[01:00:44.370] - Terrie**

Explain.

**[01:00:45.810] - Raymond**

Well, because if you can't feel, it's just going to look at numbers and go this is going to produce the biggest number. If we score good as a value, that's what we're going to do.

**[01:01:01.130] - Terrie**

Yeah, good analogy. You can see why they would align themselves up with technology. What you see is philosophy. We talked about that trinity. Philosophy, technology and finance. Take the reasoning and feeling out of that and you've pretty much got the collapse of FTX. It's all of those three combined. Back to the fourth one. Intelligence is all in the brain. That's a fallacy. Now we might read a little bit here. We start here in this paragraph here. The assumption that intelligence can in principle be disembodied is implicit in almost all work on AI through without its history. And then she'll go back through history and go back to science fiction. They think that the brain is intelligent without the body. Here we go. The assumption that intelligence is all in the brain has led to speculation that to achieve human level AI, we simply need to scale up machines to match the brain's computing capacity and then develop the appropriate software for this brain matching hardware. There's no body needed. I might leave that for time, but the point is that intelligence isn't all in the brain.

**[01:03:02.090] - Terrie**

We need the whole body, we need our emotions, we need our sensory perceptions. There's so much that is innate and that we are unconscious of that creates our intelligence. It's just not all in the brain. The ability to feel, to touch, it's the ability to experience the world, to be social, all of those external experiences are felt throughout the whole body, not just the brain. And that's what creates intelligence. You can't take the brain away from the body. Which is what they think they're going to do when they're going to upload the brain to computers. You won't need a body because all your intelligence will be a simulation. That's another fallacy. Any questions on that? The four fallacies that she's laid out. That each step is in a continual to get to human intelligence. That easy things are actually hard for computers. That we anthropomorphize computers and give them human characteristics which are just not true, not real. And intelligence isn't just in the brain. You couldn't have an intelligent computer that doesn't interact with the world, that doesn't socialize with people, that doesn't feel. We are body, soul, spirit. There's a lot that goes on to create intelligence.

**[01:05:30.490] - Terrie**

Melanie Mitchell lays out those four fallacies. Then she also talks about what creates intelligence. Why are we intelligent? And there are two things, and they're connected. And the first one we've already mentioned, and that is common sense. We think common sense is trivial. It can be silly. It doesn't make us smart. Common sense is simply the ability to exercise good, sound judgment in practical situations. And you cannot get that through education and training. Common sense is built into us when we are born, and it develops as we grow. Even a one year old is developing common sense that will only grow and

affect their intelligence, create intelligence as they get older. And that's the problem with autonomous vehicles. That's why they're having so much trouble. We know what a stop sign is. A stop sign says stop. We know what it looks like. But if we were to see a billboard with a policeman and he had a stop sign, and he was saying Stop domestic violence, we know that that billboard isn't telling us to stop our car. It's common sense.

**[01:07:15.870] - Terrie**

But an autonomous vehicle doesn't know that. Autonomous vehicle knows stop means stop. Most of the accidents they've had with autonomous vehicles, they're being rendered because they're just stopping at things. And then people are running up them because they just don't have common sense. They are not able to predict people's movements. Like a four year old running through a playground playing tag. Can think, I'll go this way because Mummy is running this way, so I'll go this way. As they get older, they get better at tag. Computers don't get that increase of knowledge. They don't have common sense. There's just so much that we have in our thinking that we don't even think about. It's unconscious thought that has developed through our experience with the world over years. You don't learn it at school. You just learn it by experience. So common sense, they do not know how to put that into a computer. That's the problem with AI. The other thing is, and it's connected, is analogous thinking. The two things, common sense, analogous thinking. And this goes back to what Marie was saying. What's an analogy Marie?

**[01:09:02.950] - Marie**

Like a parable.

**[01:09:05.470] - Terrie**

Yeah. It's when we compare things. And we do it all the time.

**[01:09:14.770] - Terrie**

We do it more often than we realize. We went to October in Fiji. We received a very warm welcome. What am I talking about? Am I talking about the weather? Our language is full of metaphors, full of analogies. Our life is full of analogies. It's how we work. It's how we learn. Somebody will say, oh, I was driving down the road the other day and this cat ran out and I slammed on the brakes. And you'll say, the same thing happened to me this week, it was an elderly person on a walker. It was a different road. It was a different day. But we make analogies all the time. We compare. And those comparisons have been done right through our life and have perfected our thinking. It's in our language. Our language is full of metaphors, and an understanding of that is part of intelligence. Being able to recognize similarities, see the differences, see the similarities and transfer our learning. A computer can't do that. Computer learns chess. That's it. There's no transfer of that learning onto another modality. But we do it all the time. If you remember, Elder Parminder was talking about Synecdoche.

**[01:11:19.870] - Terrie**

Does anybody remember Synecdoches? Taking you back a while, Katherine.

**[01:11:32.750] - Katherine**

If I remember right, it's like a part that represents the whole. Is that right?

**[01:11:38.200] - Terrie**

And an example?

**[01:11:43.010] - Katherine**

I'm going to go buy myself some new wheels. Where you will say wheels to represent the car.

**[01:11:50.710] - Terrie**

Yes. When we talk about the White House. We know we're talking about government. That is analogous thinking. It's just a particular type. Our language is full of it. When it gets pointed out to you, you just realize we do it all the time. When I said we went to Fiji, we received a warm welcome. We knew what warm meant, but warm was something that we had felt. We know we relate to warmth as a pleasant experience through life experience through our lifetime. It's part of our body. Our body has experienced warmth. Therefore we transfer that idea into a personal relationship. When we say, Watergate, Gamergate, Elevatorgate, all those gates, they're analogies. They don't need explaining. We just automatically know what we're doing. When we add a gate, to those words, that it's a particular crisis of a particular sort. Analogies are something that a computer cannot learn. It trips them up all the time. And you cannot put that thinking into a computer because it's actually part of our common sense. John, chapter three. Jesus said, "unless a man be born again, he shall not see the kingdom of God".

**[01:13:49.960] - Terrie**

What did Nicodemus automatically think?

**[01:14:00.040] - Marie**

Out of his mother's womb.

**[01:14:04.700] - Terrie**

No, that's what he said. What did he think? What did he realize? What did he recognize.

**[01:14:17.020] - Raymond**

That he had to unlearn everything he had learnt before.

**[01:14:28.160] - Terrie**

He automatically recognized that Jesus was talking about him. How did he do that? He was an intelligent human being. He recognized the analogy, only he didn't like it. What's the purpose of parables?

**[01:14:50.890] - Josephine**

Physical to Spiritual.

**[01:14:55.130] - Terrie**

Yes, but what's the purpose of them? Katherine?

**[01:15:00.110] - Katherine**

Is it to keep things hidden from people? You have to go to Jesus to understand what they mean.

**[01:15:12.560] - Terrie**

Did Nicodemus need Jesus's explanation?

**[01:15:25.090] - Katherine**

I don't know. I would have said yes. He needed his explanation, but maybe he should have been able to work out what it meant.

**[01:15:38.330] - Terrie**

I think he knew what it meant. He didn't like what it meant. The purpose of parables is to make us feel uncomfortable, because we make the analogy. Jesus didn't say, unless you be born again, Nicodemus, you can't see the Kingdom of God. He made a general statement, and Nicodemus thought, you're talking about me. He turned it around. He was being silly, and made a literal application. But he knew that wasn't what Jesus meant. He's an intelligent person. He recognized the analogy, just didn't like it. Think of Joseph. Pharaoh has a dream about cows. Pharaoh has a dream about corn. Joseph says that's the same dream. He recognized the analogy and was able to prophesy because he saw the similarities. He didn't have a dream. God didn't sprinkle fairy dust on him. And it came to him what the cows and the corn meant. He was able to logically put that together because he recognized how God works. We see it in the Bible. The use of parables is God saying, I know how your intelligent brain works. I can say a lot. I can get you thinking, and you can join the dots because I've created you intelligent beings.

**[01:17:07.330] - Terrie**

The reason people don't join the dots because they just don't like what it's saying. If the Pharisees didn't know what Jesus was saying, they wouldn't have got angry with him. They wouldn't have wanted him dead. They knew he was referring to them. Does that make sense?

**[01:17:27.290] - Josephine**

Yes. The only got offended if the lesson hits home.

**[01:17:37.130] - Terrie**

Yeah, and it hit home with Nicodemus, even seeing the Kingdom of God. What did Jesus mean by seeing the kingdom of God? He didn't mean that he'd have clear eyesight. He'd mean that he recognized it. Even then, it's an analogy. I just think it's amazing that God has used parables, because that's how we innately work as intelligent beings. You cannot put that into a computer, into any technology. It's a part of common sense. It's not common sense to say, you want me to get back in my mother's womb. That's not common sense. That's what people do when they don't want to make the analogous connection. There is a famous book written by two scientists in 1980 called *Metaphors We Live By*. And it goes through how our language is just rich with metaphor.

**[01:18:42.330] - Terrie**

And that's what creates intelligence. That's how we learn, that's how we interact. That's what makes our language rich, gives it more meaning. We live by metaphor. Katherine, did I miss your hand again? Do you have your hand up again?

**[01:19:02.310] - Katherine**

No, that's from before.

**[01:19:04.870] - Terrie**

Okay. There are four fallacies that are connected with artificial intelligence. And there is an understanding of what intelligent is. And they still can't define intelligence. And that's the problem. Scientists on the right stream are putting time and energy into trying to understand what it means to be intelligent. Let alone trying to make nuts and bolts intelligent, or something that you can put data in.

**[01:19:45.460] - Terrie**

In closing. There's one thing, and this is going to go back to what Chris was saying earlier. We won't read all this for time. I might put this article up on our prayer meeting group, so that you could read it in your own time. Hand up by Rachel. Yes, Rachel.

**[01:20:19.670] - Rachel**

You finish your thought and it's not really important. It could wait. You finish your thought.

**[01:20:32.300] - Rachel**

Don't leave without expressing. Here's an article from *The Conversation*, and a reader has written in a question and said, I am 59 years old and in reasonably good health. Is it possible that I will live long enough to put my brain into a computer?

**[01:20:55.550] - Terrie**

Richard Dixon. I feel sorry for Richard Dixon. I don't know who he is, but he shouldn't have given his name because he's going to get a lecture. This is written by Guillaume Thierry. He's a professor of cognitive neuroscience in Bangor University. Bangor is in Wales, and I'm not sure I'm pronouncing that

right. But anyway. He says, we often imagine that human consciousness is as simple as input and output of electrical signals within a network of processing units, therefore comparable to a computer. We think our human consciousness is the same as a computer's. Reality, however, is it's much more complicated. For starters, we don't actually know how much information the human brain can hold. This was an article written when? Let me just see. When was it written? 2022, this is an article from this year. Two years ago, a team at the Allen Institute for Brain Science in Seattle U. S. Mapped the 3D structure of all the neurons brain cells comprised in one cubic millimeter of the brain of a mouse, a milestone considered extraordinary. Within this minuscule cube of brain tissue the size of a grain of sand, the researchers counted more than 100,000 neurons and more than a billion connections between them.

### **[01:22:45.180] - Terrie**

They managed to record the corresponding information on computers, including the shape and configuration of each neuron and connection, which required two petabytes, or 2 millionGB of storage. And to do this, their automated microscopes had to collect 100 million images of 25,000 slices of the minuscule sample continuously over several months. You've got 1 mm cube. In that 1 mm cube, they took 25,000 slices. That's an awfully thin slice. Think of that next time you're cutting your tomatoes. If you go on to this article, there is a YouTube link for the National Geographic. I've got a short video on this and it's good to watch. You will notice something about all the scientists, though, and we can talk about that next week, but it's worth watching. Now, if this is what it takes to store the full physical information of neurons and their connections in one cubic millimeter of mouse brain, you can perhaps imagine that the collection of this information from the human brain is not going to be a walk in the park. Data extraction and storage, however, is not the only challenge. For a computer to resemble the brain's mode of operation, it would need to access any and all the stored information in a very short amount of time.

### **[01:24:17.630] - Terrie**

The information would need to be stored in its Random Access Memory, or RAM, rather than on traditional hard disks. But if we tried to store the amount of data the researchers gathered in a computer's RAM, it would occupy 12.5 times the capacity of the largest single memory computer. A computer that is built around memory rather than processing, ever built. You'd need 12.5 times the capacity of the largest computer ever built. The human brain contains about 100 billion neurons, as many stars as could be counted in the Milky Way, 1 million times those contained in our cubic millimeter of mouse brain. And the estimated number of connections is a staggering ten to the power of 15. That is ten followed by 15 zeros, a number comparable to the individual grains contained in a two meter thick layer of sand on a 1 km long beach. That is a lot of connections, just like Chris was saying earlier then it's the question of space. If we don't even know how much information storage a human brain can hold, you can imagine how hard it would be to transfer it into a computer. You'd have to first translate the information into a code that the computer can read.

### **[01:25:45.670] - Terrie**

Notice how we're saying computers reading? It doesn't read, but anyway. And use once it is stored. Any error in doing so would probably prove fatal. And he's going to go on to explain that you're going to need three copies of it to make sure you get everything. You've got to have enough space and you've got to

have three copies. We'll keep reading? Then there's a question of time. Wait a minute, we'll read this. It's a problem when you miss bits. So remember they sliced the mouse brain very, very thin, 25,000 slices in a cubic millimeter. The same technique would have to be applied to your brain because only very coarse information can be retrieved from brain scans. Information in the brain is stored in every detail in its physical structure of the connections between neurons, their size and shape, as well as the number and location of connections between them. But would you consent to your brain being sliced in that way? Even if you would agree that we slice your brain into extremely thin slices, it is highly unlikely that the full volume of your brain would ever be cut with enough precision and be correctly reassembled.

### **[01:27:14.500] - Terrie**

The brain of a man has a volume of about 1.26 million cubic millimeters. They've done it to one cubic millimeter of a mouse brain. But a human brain's got 1.26 million cubic millimeters. You wouldn't want to make a mistake in your slicing if I haven't already dissuaded you from trying the procedure, consider what happens when taking time into account. After we die, our brains quickly undergo major changes that are both chemical and structural. When neurons die, they soon lose their ability to communicate and their structural and functional properties are quickly modified, meaning they no longer display the properties that they exhibit when we are alive. But even more problematic is the fact that our brain ages. He's going to go on to explain how many neurons that we lose a day from the age of 20. 85000 neurons a day. We've lost a lot by the time we're in our 80s, but we've still got plenty. We're not shorter neurons even when we're old. This section is all about time. You've got to do it quickly and you've got to get all of it.

### **[01:28:32.250] - Terrie**

Then he's going to talk about the how. And we'll leave that for the time being as well. Three major problems there, and how is it going to work? And he'll go on to explain that you just couldn't possibly get it. How a brain works in real life to work into a computer, even if you put the data and all those slices in. But this is the last bit I would like to read. Are our minds more than the sum of their biological parts? Let's go back one paragraph. The possibility of uploading the information contained in brains to computers is utterly remote and might forever be out of reach. Perhaps I should stop there, but I won't, because there is more to say. Allow me to ask you a question in return, Richard. Why would you want to put your brain into a computer? I may have a useful, albeit unexpected, answer to give you after all. I shall assume that you would want to transfer your mind to a computer in the hope of existing beyond your lifespan, that you'd like to continue existing inside a machine once your body can no longer implement your mind in your living brain.

### **[01:29:51.150] - Terrie**

If this hypothesis is correct, however, I must objec. Imagining that all the impossible things listed above were one day resolved and your brain could literally be copied into a computer, allowing a complete simulation of the functioning of your brain. At the moment you decide to transfer Richard Dixon would have ceased to exist. The mind image transferred to the computer would therefore not be any more alive than computer hosting it. That's because living things, such as humans and animals exist because they are alive. You may think that I just stated something utterly trivial verging on stupidity, but if you think about it, there is more to it than meets the eye. A living mind receives input from the world through the

senses. It is attached to a body that feels based on physical sensations. This results in physical manifestations such as changes in heart rate, breathing and sweating, which in turn can be felt and contribute to the inner experience. How would this work for a computer? Without a body, all such input and output isn't likely to be easy to model, especially if the copied mind is isolated and there is no system to sense the environment and act in response to input.

### **[01:31:12.070] - Terrie**

The brain seamlessly and constantly integrates signals from all the sensors to produce internal representations, makes predictions about these representations, and ultimately creates conscious awareness. Our feelings of being alive and being ourselves in a way that is still a total mystery to us. Without interaction with the world, however subtle and unconscious, how could the mind function, even for a minute? How could it evolve and change? If the mind, artificial or not, has no input or output, then it is devoid of life, just like a dead brain. In other words, having made all the sacrifices discussed earlier, transferring your brain to a computer would have completely failed to keep your mind alive. You may reply that you would then request an upgrade and ask for your mind to be transferred into a sophisticated robot equipped with an array of sensors capable to seeing, hearing, touching, and even smelling and tasting the world. Why not? And that this robot would be able to act and move and speak. Why not? But even then, it is theoretically and practically impossible that the required sensors and motor systems would provide sensations and produce actions that are identical or even comparable to those provided and produced by your current biological body.

### **[01:32:40.070] - Terrie**

Eyes are not simply cameras. Ears aren't just microphones. And touch is not only about pressure estimation. For instance, eyes don't only convey light, contrasts and colors. The information from them is combined soon after it reaches the brain in order to encode depth, distance between objects. And we don't yet know how. We don't even know how that information goes through the eye. And does that interacts with our brain? And so it follows that your transferred mind would not have the possibility to relate to the world as your current living mind does. And how would we even go about connecting artificial senses to the digital copy of your living mind? What about the danger of hacking or hardware failure? So, no, no and no. I have tried to give you my scientifically grounded take on your question. And even though it is a definite no from me, I hope to have helped alleviate your desire to ever have your brain put into a computer. I wish you a long and healthy life. Okay, that is what our mind is all about. We are fiercely and wonderfully made. Our intelligence isn't all in the brain.

### **[01:34:04.350] - Terrie**

We are amazingly wired, as Chris was talking about earlier. And so artificial intelligence, as longtermists, as these scientists and philosophers consider it, it isn't a threat. It's not going to reach human compatibility in thought and it's not going to take over the world. But that doesn't mean that it isn't something we don't need to worry about. We have a few things to be worried about artificial intelligence, and we'll look at that next time. What we've looked at tonight is why we don't have to worry about it taking over the world in 2029, as Nick Bostrom said, in 2014. But we do have concerns. Is there any thoughts or comments about what we've discussed today? Rachel.

**[01:35:08.290] - Rachel**

I just loved what you read then. It was just wow. But just a quick little question. I'm trying to understand. A couple of things. When we think of abstract thinking, AI can't have that either. They can't think abstractly. That was just one thought I wanted to add before. Yes, analogous thinking is abstract. As Marie said, it's parables. No, they can't have abstract thoughts.

**[01:35:48.130] - Terrie**

I'm trying to think of an example. We talked about autonomous vehicles, but there's quite a number of things that they've run into problems with. Might try and find them for next week.

**[01:36:14.710] - Rachel**

Thank you. I couldn't think of an example. That's why I wanted to ask you if that was something as well. It'd be great to have a look more into that.

**[01:36:25.610] - Terrie**

Yeah, there's some real obvious ones, but they're not coming to my mind at the moment. Things that just make common sense to us. A child will learn from a young age what a dog is and they'll have no trouble going through their entire life recognizing dogs in all sorts of situations, all types of dogs. They'll know a dog. It's not like that for a computer. You put a dog in a different locality, amongst people, in a field or whatever, it's going to struggle. It can't transfer learning from dog to dog. You got to put in all the dogs in the world and then all dogs in all different situations. That's part of our common sense. We don't say, Is that a dog? Because it's smaller dog than that dog. We see enough comparisons, even between a Chihuahua and a Great Dane, to know that they're both dogs. And we didn't have to learn that at school. But that's a poor example, I'll think, of some other ones. Marie.

**[01:37:52.620] - Marie**

I thought it was Psalms 53, but I don't think it is, where it's saying, we are fearfully and wonderfully made, and he knew me while I was in my mother's womb. It just makes me thinking that. How can they ever copy what God has done in making human beings? They can't. That was all.

**[01:38:21.460] - Terrie**

Yeah. It's interesting because when we think about the antediluvian world and how wicked they were before the antediluvian world. Why? Because they were trying to clone people. We're doing the same thing with AI. Forget about genetic engineering. They're trying to make automatons. We do like our life being made easier, but we underestimate the power of our own intelligence. Brodie.

**[01:39:19.680] - Raymond**

The fascinating concept we have that computers are better than us. Does part of that come from the first computer being the one they used to break Enigma? Because it did what they couldn't do, because it

was able to make more computations in a day than the team of mathematicians could do. And even though it was obviously much less intelligent than they were, because it was able to do more calculations and break that code that we've got this idea that computers are smarter than us, even though they're really obviously not.

**[01:40:07.740] - Terrie**

It didn't break the code. The people handling the data, people that were controlling the computer, they broke the code. They used something to help them break the code. It just did something that was too hard for them, but it couldn't do what was easy for them.

**[01:40:38.840] - Raymond**

Thank you.

**[01:40:40.200] - Terrie**

We'll finish up tonight. We've looked at what's not to be worried about artificial intelligence. We've compared that to ourselves. Next time we'll look at what is to be worried about artificial intelligence. We'll close with Prayer. Marie, are you able to close for us tonight?

**[01:41:02.880] - Marie**

Yes, absolutely. Dear God in heaven. Thank you for the study tonight. And thank you that it only helps us to see how amazing we are made and how there can be no copy of what you have made us. And I pray that as we study these things, that you will expand our minds more to be able to grasp not only the terrible things that are been considered by these intelligent, wealthy men and women, but that it will just highlight more what we are and what you're going to do with us as a people and how praise worthy that is and will be. And I thank you that we are in the Sabbath hours now, and I pray that you would bless each one of us. As we go our separate ways. I ask that you will please bless our sleep and bring us refreshed again tomorrow and bless what's to be presented tomorrow. In your name. Amen.