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00:00:00,240 --> 00:00:05,028

[MUSIC]

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00:00:05,028 --> 00:00:10,461

Sustainability unwrapped a conversational podcast about responsibility,

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00:00:10,461 --> 00:00:15,397

ethics, inequalities, climate change, and other challenges of our

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00:00:15,397 --> 00:00:19,920

times where science needs practice to think about the world, and

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00:00:19,920 --> 00:00:24,307

how to make our society more sustainable one podcast at a time.

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00:00:24,307 --> 00:00:24,922

[MUSIC]

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00:00:24,922 --> 00:00:29,553

>> Hello everyone, and welcome to a new episode of the sustainability

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00:00:29,553 --> 00:00:32,975

unwrapped podcast, my name is Robert Chiquita.

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00:00:32,975 --> 00:00:38,091

And I am an assistant professor at the Hong Kong School of Economics and

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00:00:38,091 --> 00:00:41,819

the Department of Marketing, and I do research and

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00:00:41,819 --> 00:00:46,340

I teach on all sorts of topics related to digital marketing.

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00:00:46,340 --> 00:00:52,300

And today I'm happy to be joined by two wonderful guests to talk about

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00:00:52,300 --> 00:00:59,520

subjects on artificial intelligence AI from a couple of different perspectives.

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00:00:59,520 --> 00:01:05,361

So it's my great pleasure to introduce a council Malik and Mao Rego and

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00:01:05,361 --> 00:01:10,422

apologize in advance if I completely butchered your names.

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00:01:10,422 --> 00:01:15,011

But I would like to give you the floor too briefly introduce yourselves.

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00:01:15,011 --> 00:01:20,028

Tell us a bit about your your background and how you ended

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00:01:20,028 --> 00:01:25,919

up being interested in topics related to AI or or working with AI.

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00:01:25,919 --> 00:01:30,240

So a contra I'll give you the first word.

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00:01:30,240 --> 00:01:33,092

>> No you're back on track with the name.

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00:01:33,092 --> 00:01:34,820

So you're all good for today.

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00:01:34,820 --> 00:01:36,632

We've trained this well we'll be fine.

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00:01:36,632 --> 00:01:41,022

But yeah my name is Khan to I am a data scientist in Melbourne Australia,

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00:01:41,022 --> 00:01:44,679

living the land of the free at the moment where it's no COVID

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00:01:44,679 --> 00:01:49,740

we'll just I'm not going to say that again because I feel like I'll jinx it.

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00:01:49,740 --> 00:01:54,388

But yeah I worked as a data scientist and here I'm also a Microsoft AI MVP.

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00:01:54,388 --> 00:01:58,848

And kind of how I got into the whole world was I did a degree in math's and

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00:01:58,848 --> 00:02:01,270

statistics and actuarial science and

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00:02:01,270 --> 00:02:05,729

kind of what I came out of that knowing is I don't really like finance or

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00:02:05,729 --> 00:02:09,888

statistics that much in like very technical statistic levels and

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00:02:09,888 --> 00:02:14,840

didn't really enjoy the actuarial science too much in terms of doing a job.

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00:02:14,840 --> 00:02:17,741

But I did like the data stuff we did I did like the computer stuff we did.

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00:02:17,741 --> 00:02:23,821

So I ended up coming into a grant program doing data science as consulting and

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00:02:23,821 --> 00:02:27,245

it's just spiral since then and here I am.

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00:02:27,245 --> 00:02:28,360

>> All right thank you.

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00:02:28,360 --> 00:02:30,847

And then we also have morrow.

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00:02:30,847 --> 00:02:31,695

Hi Morrow.

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00:02:31,695 --> 00:02:32,562

>> Hi.

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00:02:32,562 --> 00:02:36,026

Yeah so how I what I do and how I cannot here so

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00:02:36,026 --> 00:02:39,981

I'm a designer at google research or google AI.

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00:02:39,981 --> 00:02:45,691

And I ended up there because I got a job there.

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00:02:45,691 --> 00:02:47,998

I think that's the first element like I did.

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00:02:47,998 --> 00:02:51,597

It was not a choice that I made like consciously saying

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00:02:51,597 --> 00:02:56,112

I want to work more with AI machine learning was just a fact of like going

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00:02:56,112 --> 00:03:00,710

through different projects and happening to ended up gathering enough

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00:03:00,710 --> 00:03:06,340

experience to ended up in a position inside of the research unit at google.

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00:03:06,340 --> 00:03:08,840

Yeah.

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00:03:08,840 --> 00:03:13,240

>> All right so as you might see that if you had a look at the title of

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00:03:13,240 --> 00:03:18,079

today's episode is kind of AI from different perspectives right?

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00:03:18,079 --> 00:03:22,001

So from data science to design and many places in between.

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00:03:22,001 --> 00:03:26,482

So you can kind of understand now once you once who our guest stars,

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00:03:26,482 --> 00:03:31,127

you can understand what the idea behind today's conversation is but

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00:03:31,127 --> 00:03:33,305

let's maybe just dive into it.

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00:03:33,305 --> 00:03:37,457

So I had I had a talk with my dad this this weekend in which I was

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00:03:37,457 --> 00:03:42,041

complaining about my work clothes that seems to be never ending.

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00:03:42,041 --> 00:03:47,407

And he said something funny which was can't you just program some AI algorithm

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00:03:47,407 --> 00:03:52,379

to do your work for you or some of your work for you so you get some time off?

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00:03:52,379 --> 00:03:56,049

And I got completely stumped because I realized okay so

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00:03:56,049 --> 00:03:58,771

that's what my dad thinks thinks AI is.

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00:03:58,771 --> 00:04:01,616

And then we ended up having quite a long conversation in which I was trying

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00:04:01,616 --> 00:04:02,140

to explain.

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00:04:02,140 --> 00:04:04,703

Well dad actually that's not what AI is.

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00:04:04,703 --> 00:04:09,416

So I would like to to kind of open the discussion by asking you 1st and

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00:04:09,416 --> 00:04:11,411

1st foremost, what is AI?

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00:04:11,411 --> 00:04:16,258

In a layman explanation or how would you explain to my dad what AI is.

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00:04:16,258 --> 00:04:20,473

And do you have any examples or any ideas of what is good Ai or

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00:04:20,473 --> 00:04:22,288

what can AI actually do?

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00:04:22,288 --> 00:04:25,456

>> I think I was trying to I asked about this and

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00:04:25,456 --> 00:04:30,296

was like how do I even quantify this because AI has just become this

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00:04:30,296 --> 00:04:35,136

like buzz word that people just love using it like AI the end all and

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00:04:35,136 --> 00:04:40,864

be all that will solve all of our problems kind of like well do your job for you.

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00:04:40,864 --> 00:04:42,828

And I think I remember trying to explain to my sister,

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00:04:42,828 --> 00:04:44,151

it's like the same thing, right?

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00:04:44,151 --> 00:04:47,021

You try and explain it to your family who don't know what the hell you're doing

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00:04:47,021 --> 00:04:47,641  
any single day.

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00:04:47,641 --> 00:04:52,190  
But they kind of like you do something, I think you have a job to do something.

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00:04:52,190 --> 00:04:55,317  
But I think the easiest way I think of ai anyway and I might be wrong.

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00:04:55,317 --> 00:04:59,427  
I mean that's just the way I can see it is just the AI is the extra

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00:04:59,427 --> 00:05:01,577  
brain power that I don't have.

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00:05:01,577 --> 00:05:05,340  
And I can't leverage like it's the extra stuff I can't get from coffee.

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00:05:05,340 --> 00:05:09,591  
That's what AI is to me it will do the exact same thing that I can sit down and

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00:05:09,591 --> 00:05:14,530  
do if it's something like computer image, computer vision where it looks at an image

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00:05:14,530 --> 00:05:19,052  
and it's like, okay, this is a dog, I can do that AI just does that at a scale of

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00:05:19,052 --> 00:05:22,456  
about 40,000 images in two seconds kind of a thing.

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00:05:22,456 --> 00:05:25,131  
It's just that extra brainpower from my opinion.

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00:05:25,131 --> 00:05:29,541  
Anyway, I've seen around and what the use cases I've seen

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00:05:29,541 --> 00:05:32,328  
>> All right Morrow what is AI to you

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00:05:32,328 --> 00:05:32,960  
then?

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00:05:32,960 --> 00:05:40,100  
>> I like what your father said because it goes really in the  
direction of how I

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00:05:40,100 --> 00:05:45,742  
understand the whole thing is actually I would say AI is for

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00:05:45,742 --> 00:05:51,961  
cognitive work stands for cognitive work as machine to stand for

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00:05:51,961 --> 00:05:56,130  
for labor for for arts and crafts, right?

93  
00:05:56,130 --> 00:05:58,921  
So if I want to make tables right?

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00:05:58,921 --> 00:06:03,897  
And I can I can really sculpture table out of wood with my hands I

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00:06:03,897 --> 00:06:05,919  
can produce that right?

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00:06:05,919 --> 00:06:09,381  
And I'm gonna take I don't know how much time like three weeks to  
produce

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00:06:09,381 --> 00:06:09,961  
one table.

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00:06:09,961 --> 00:06:11,516  
I'm gonna cost a lot of material.

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00:06:11,516 --> 00:06:13,740  
I'm gonna be heavily expensive.

100

00:06:13,740 --> 00:06:17,564

But I can also produce that in a factory, right?

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00:06:17,564 --> 00:06:23,111

And that's what AI kind of stands for right now in terms of business and

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00:06:23,111 --> 00:06:29,130

and industry pretty much turning cognitive work work that like identifying

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00:06:29,130 --> 00:06:36,440

pictures for example or solving solving problems bigger scale and automated.

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00:06:36,440 --> 00:06:39,352

So the same relationship that you have

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00:06:39,352 --> 00:06:43,361

would have with industrial revolutions are today.

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00:06:43,361 --> 00:06:47,291

>> And I think probably there there are quite a lot out there who would who would

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00:06:47,291 --> 00:06:48,801

like to use this term of now.

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00:06:48,801 --> 00:06:53,207

We are living in this data revolution and the kind of algorithm revolution and

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00:06:53,207 --> 00:06:57,696

we move from from industrial revolution to information revolution and so on.

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00:06:57,696 --> 00:07:00,741

So again quite a lot of buzz words thrown around.

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00:07:00,741 --> 00:07:04,324

But I think what's kind of interesting to me and

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00:07:04,324 --> 00:07:09,609

this was the challenge that I found in trying to talk to my dad about it,

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00:07:09,609 --> 00:07:15,699

was that somehow I was hurt because he he somehow felt that the important work that

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00:07:15,699 --> 00:07:21,637

I'm doing can be broken down into the simple tasks that can just be automated.

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00:07:21,637 --> 00:07:26,519

So somehow my hubris got a bit hurt because the type of job that

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00:07:26,519 --> 00:07:30,660

I do is not something that a machine can replicate.

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00:07:30,660 --> 00:07:32,212

Right? So in principle,

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00:07:32,212 --> 00:07:36,334

I think a lot of the conversation is also stuck in this situation that

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00:07:36,334 --> 00:07:39,299

we clearly see that machines can do quite a lot and

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00:07:39,299 --> 00:07:44,180

they can do things faster and they can do things better and at scale and cheaper.

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00:07:44,180 --> 00:07:46,935

But I think we're also starting to move the conversation towards.

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00:07:46,935 --> 00:07:51,240

Yeah, but what are tasks that can be done and tasks that can't be done.

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00:07:51,240 --> 00:07:54,745

So what are your your, do you have any any faults on that or

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00:07:54,745 --> 00:07:57,828  
is that some where do you draw the line basically?

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00:07:57,828 --> 00:08:02,638  
>> Maybe, maybe I like, I think when you say like machines can do better work,

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00:08:02,638 --> 00:08:05,040  
it's really not the point.

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00:08:05,040 --> 00:08:09,944  
I think it's exactly that that's exactly the direction if your job can be automated

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00:08:09,944 --> 00:08:12,510  
because it's made out of analytical work.

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00:08:12,510 --> 00:08:18,210  
Like if you follow a so they are checklists to fulfill a job then yes,

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00:08:18,210 --> 00:08:21,411  
Daniel Job can be automated, right?

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00:08:21,411 --> 00:08:26,123  
And then you just need people like people can enough data that can actually create

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00:08:26,123 --> 00:08:30,913  
like something that can actually make this work so cheap that then worth, Right?

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00:08:30,913 --> 00:08:35,140  
So that's I think it goes exactly the same direction of what your dad's free.

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00:08:35,140 --> 00:08:36,728  
It's already proven that directed.

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00:08:36,728 --> 00:08:40,472  
Like if you think that your job can be calculated because what are you doing is

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00:08:40,472 --> 00:08:43,105

kind of repetitive and and can be learned quite fast,

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00:08:43,105 --> 00:08:45,000

then you can give that to the machine.

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00:08:45,000 --> 00:08:47,512

It doesn't mean that the machine going to do a better job than you.

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00:08:47,512 --> 00:08:50,870

It's just gonna be that you're gonna do us cheaper job than you.

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00:08:50,870 --> 00:08:53,461

And that's what matter promotes of the industry,

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00:08:53,461 --> 00:08:56,482

is actually reducing the human cost for forever business.

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00:08:56,482 --> 00:08:58,440

Right?

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00:08:58,440 --> 00:08:59,872

>> Indeed.

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00:08:59,872 --> 00:09:04,211

So that's that's something to consider a bit right.

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00:09:04,211 --> 00:09:09,443

When I think I always like to go back to this image of the ladies who are taking

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00:09:09,443 --> 00:09:14,263

the hammers towards the sewing machines back in the 19th century,

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00:09:14,263 --> 00:09:19,020

because well, we are more or less getting into the same situation.

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00:09:19,020 --> 00:09:23,897

And of course, I think there are a lot of people kind of cheering for

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00:09:23,897 --> 00:09:29,556

the fact that because of that Ai can also help people maybe pick up new skills or

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00:09:29,556 --> 00:09:34,172

maybe even move towards the society in which people have to work

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00:09:34,172 --> 00:09:38,651

less because a lot of the technology is doing the work for us.

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00:09:38,651 --> 00:09:43,327

So again, those are interesting perspectives to to to to consider.

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00:09:43,327 --> 00:09:45,630

And for everyone that sees some sort of utopia,

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00:09:45,630 --> 00:09:48,291

there's somebody else seeing some sort of dystopia.

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00:09:48,291 --> 00:09:51,361

So I guess we will meet somewhere in the middle anyway.

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00:09:51,361 --> 00:09:57,521

Can you maybe tell our listeners at least from your experience what is not AI.

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00:09:57,521 --> 00:10:03,283

So we kind of explain a bit what Ai is, but what is maybe some misconception about

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00:10:03,283 --> 00:10:08,787

AI that you maybe see a lot in in your work and then maybe you would like to say,

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00:10:08,787 --> 00:10:13,181

hey, I think that's not really what should be put under AI.

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00:10:13,181 --> 00:10:13,840

>> Yeah.

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00:10:13,840 --> 00:10:18,601

I think, I mean I've definitely had clients kind of our customers come in and

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00:10:18,601 --> 00:10:23,217

they're like, hey we want AI and I'm not necessarily saying that that's

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00:10:23,217 --> 00:10:27,172

nothing matter, but they just want AI they know it's a thing and

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00:10:27,172 --> 00:10:31,743

they're just like everyone like have you got a problem you want to solve?

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00:10:31,743 --> 00:10:32,750

Have you got data?

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00:10:32,750 --> 00:10:35,722

Like or is it just a case that you wanna be able to go and say,

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00:10:35,722 --> 00:10:37,074

hey we do a out here today.

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00:10:37,074 --> 00:10:38,901

Like what exactly going on.

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00:10:38,901 --> 00:10:42,730

So I think that misconception of I think it goes back to the whole day,

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00:10:42,730 --> 00:10:43,928

I can do everything.

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00:10:43,928 --> 00:10:45,560

I'll solve all the problems.

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00:10:45,560 --> 00:10:49,305

But without ever actually taking the time to figure out what your problem is.

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00:10:49,305 --> 00:10:53,265

Is a real kind of an issue in the industry that I keep saying

anyway, especially

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00:10:53,265 --> 00:10:57,225

because what leads to that is when you take that minute to step back and actually

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00:10:57,225 --> 00:11:01,305

figure out what your problem is, what you slowly and very quickly realize is AI is

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00:11:01,305 --> 00:11:05,448

actually not the solution because it's a very simple problem that can be solved.

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00:11:05,448 --> 00:11:08,812

With just the normal use cases of like whether that's development or

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00:11:08,812 --> 00:11:11,660

like just another application or whatever else it can be.

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00:11:11,660 --> 00:11:16,141

It's a very simple solution out there that you don't need to spend this much

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00:11:16,141 --> 00:11:20,415

amount of time setting up an AI solution or creating these algorithms and

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00:11:20,415 --> 00:11:21,904

it also then leads into.

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00:11:21,904 --> 00:11:26,107

It's now becoming a scenario in the world where creating a new algorithm,

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00:11:26,107 --> 00:11:30,380

we're creating a new machine learning thing is you're kind of reinventing

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00:11:30,380 --> 00:11:32,736

the wheel a little bit with these things.

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00:11:32,736 --> 00:11:35,910

If you're starting from scratch there is absolutely no need to do that.

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00:11:35,910 --> 00:11:40,478

There are great models that are already existing like google and as your database,

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00:11:40,478 --> 00:11:43,023

they've already got these great platforms or

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00:11:43,023 --> 00:11:46,761

you can just kind of go in plug your data in very securely and safely.

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00:11:46,761 --> 00:11:47,880

I promise.

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00:11:47,880 --> 00:11:51,444

I mean I've done it is used in but it's already been built for you and yet people

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00:11:51,444 --> 00:11:54,965

are still like, no, we want from scratch like we want to build our own thing.

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00:11:54,965 --> 00:11:58,762

There's just so much more involved with that because of price and cost and

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00:11:58,762 --> 00:12:02,560

all these things but also dangerous in terms of the ethics involved in like

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00:12:02,560 --> 00:12:05,272

are you really using the best people to create this.

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00:12:05,272 --> 00:12:07,900

Do they know the downfalls of the pitfalls here.

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00:12:07,900 --> 00:12:11,623

So I mean there's just a lot of things that can go wrong, but also yeah,

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00:12:11,623 --> 00:12:14,414

what is not AI is very much look at the problem at hand,

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00:12:14,414 --> 00:12:18,420

there's probably a better solution than using a brand new AI thing into us.

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00:12:18,420 --> 00:12:22,301

Especially when the scenario a lot of the times is a case of if not elsewhere,

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00:12:22,301 --> 00:12:26,061

it's like if it's this, I want to answer doing this and then I want this,

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00:12:26,061 --> 00:12:30,634

that's not AI and that's just programming, which has been around for hundreds years.

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00:12:30,634 --> 00:12:35,216

>> Yeah, like that, but chatbots

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00:12:35,216 --> 00:12:40,141

not AI just I got that a lot as well.

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00:12:40,141 --> 00:12:40,842

>> All right.

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00:12:40,842 --> 00:12:48,845

>> So what I so we kind of talked a bit about what AI is and what Ai is not?

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00:12:48,845 --> 00:12:52,767

And then I would like to each of you because I think Akasha you kind of did

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00:12:52,767 --> 00:12:57,354

that now when you were kind of describing the idea that okay, you have a problem and

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00:12:57,354 --> 00:13:01,607

then you try to find a solution and AI is sort of a way to get from from problem to

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00:13:01,607 --> 00:13:05,495

solution, but it's not necessarily the solution in and of itself.

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00:13:05,495 --> 00:13:08,982

So I was wondering can you kind of explain a bit.

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00:13:08,982 --> 00:13:14,400

So so for each of you kind of how how does this AI fit in what you do?

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00:13:14,400 --> 00:13:18,696

So how can you basically how do you when you have to solve problems with AI,

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00:13:18,696 --> 00:13:20,635

what is it that you actually do and

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00:13:20,635 --> 00:13:24,654

what is it that you actually recommend to the to the to the companies or

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00:13:24,654 --> 00:13:27,943

to the policymakers that come and want to work with you.

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00:13:27,943 --> 00:13:35,515

So in this case what would be an actual application of AI that you can share?

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00:13:35,515 --> 00:13:36,598

>> Yeah like I mean and and

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00:13:36,598 --> 00:13:40,189

I guess I mean my experience of it is gonna be completely different because I

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00:13:40,189 --> 00:13:44,011

work in a consulting company with specific kind of customers and stuff I guess.

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00:13:44,011 --> 00:13:46,601

But like if I mean I call myself a data scientist but

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00:13:46,601 --> 00:13:49,079

I mean you can call yourself whatever you want.

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00:13:49,079 --> 00:13:49,721

I'm a consultant.

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00:13:49,721 --> 00:13:51,833

I go talk to people all the time and

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00:13:51,833 --> 00:13:56,440

I mean any given project the same thing happens where it's AI is just such

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00:13:56,440 --> 00:14:01,197

a minuscule part of the project itself if it is in the first person AI project

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00:14:01,197 --> 00:14:04,970

which is a very odd number same term in fairness a I can mean so

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00:14:04,970 --> 00:14:09,756

many hundreds different things inside us but let's just use that for now.

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00:14:09,756 --> 00:14:11,691

Like a lot of my job is actually going and

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00:14:11,691 --> 00:14:14,918

doing the original chance of okay one of you got what's the data,

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00:14:14,918 --> 00:14:18,221

what's your current tech stack like where does everything said?

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00:14:18,221 --> 00:14:20,143

How does it all connect with everything?

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00:14:20,143 --> 00:14:24,880

And the like it's a running joke in the data science industry where the 70% of

233

00:14:24,880 --> 00:14:27,991

the data side this job is just cleaning up the data and

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00:14:27,991 --> 00:14:32,235

it's true like nothing works well if your data is incorrect or clean and

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00:14:32,235 --> 00:14:34,950

actually representing the truth behind it.

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00:14:34,950 --> 00:14:40,379

That quality of data is such a big part of any solution you'll ever build.

237

00:14:40,379 --> 00:14:44,481

It's like a lot of my job is just going, it's not even going cleaning.

238

00:14:44,481 --> 00:14:47,244

The data is actually understanding the data as a consultant.

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00:14:47,244 --> 00:14:51,241

I'm going into this random company where these people know their data really well.

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00:14:51,241 --> 00:14:52,399

I have no idea what they're doing.

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00:14:52,399 --> 00:14:54,348

Like I've been in healthcare,

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00:14:54,348 --> 00:14:57,690

I've done a project in kind of just what are they called?

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00:14:57,690 --> 00:15:00,730

But bunch of different industries.

244

00:15:00,730 --> 00:15:02,011

I don't know what any of this means.

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00:15:02,011 --> 00:15:05,292

Like I couldn't tell you anything that happens in a hospital outside of

246

00:15:05,292 --> 00:15:07,915

what mom as a nurse tells me that happens in the hospital or

247

00:15:07,915 --> 00:15:09,721

what I'm watching Grey's Anatomy but

248

00:15:09,721 --> 00:15:13,410

that's not enough to understand these terms put in front of me in terms of data.

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00:15:13,410 --> 00:15:16,282

A lot of my jobs essentially because I'm a consultant,

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00:15:16,282 --> 00:15:19,643

it's a little bit different and my job is essentially going in and

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00:15:19,643 --> 00:15:23,798

understanding what's happening for them and after we've broken that all day,

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00:15:23,798 --> 00:15:27,740

I was like okay this is the data, it's actually clean, it's well usable.

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00:15:27,740 --> 00:15:30,881

It's quality data where represents the tooth and

254

00:15:30,881 --> 00:15:33,440

90% of the time that isn't the case.

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00:15:33,440 --> 00:15:36,930

So if we get to that ideal scenario where everything lines up,

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00:15:36,930 --> 00:15:38,481

then it's like okay cool.

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00:15:38,481 --> 00:15:43,045

Now we can implement some kind of I mean whether it's time series

analysis or

258

00:15:43,045 --> 00:15:47,822

predicting whatever else you want to do with it, that's a very small part there

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00:15:47,822 --> 00:15:52,848

that we've done in a everything around it has been okay, let's understand this.

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00:15:52,848 --> 00:15:55,550

And once you've implemented the AI, the rest of it is helping the client

261

00:15:55,550 --> 00:15:58,343

understand us, making sure they understand what's been implemented and

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00:15:58,343 --> 00:15:59,700

how to use it and go forward with it.

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00:15:59,700 --> 00:16:03,795

So in my job anyway I think yes, it's a very AI based job but

264

00:16:03,795 --> 00:16:09,411

the work I do isn't really that heavily focused necessarily all the time on AI.

265

00:16:09,411 --> 00:16:12,441

>> All right, so that was the data perspective.

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00:16:12,441 --> 00:16:18,375

So what about the design perspective, how does your typical work day look like more?

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00:16:18,375 --> 00:16:23,410

>> Yeah, so it really depends on which project I'm working right now.

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00:16:23,410 --> 00:16:26,348

Like I used to be a consultant as well and

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00:16:26,348 --> 00:16:31,830  
that was when I had my first contact with AI powered application.

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00:16:31,830 --> 00:16:34,780  
Was it a pharma company in Deutschland, and

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00:16:34,780 --> 00:16:39,190  
they want to do a a medical AI as anyone else wants to do medical AI.

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00:16:39,190 --> 00:16:44,117  
But it was very interesting because the proposal there

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00:16:44,117 --> 00:16:47,670  
was we have a set of people specialist.

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00:16:47,670 --> 00:16:51,360  
So it's not like identifying traffic lights or

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00:16:51,360 --> 00:16:55,990  
under it's not kind of data that anyone can label, right?

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00:16:55,990 --> 00:17:01,814  
It was a really specific like looking at patients history and

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00:17:01,814 --> 00:17:05,125  
the patient's health history and

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00:17:05,125 --> 00:17:11,191  
then identify if a drug is causing a side effect or not, right?

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00:17:11,191 --> 00:17:13,011  
So that was the baseline.

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00:17:13,011 --> 00:17:19,148  
So you look at all the evidence that you have from the documentation and

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00:17:19,148 --> 00:17:23,731  
then you judge if what's happening there, right?

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00:17:23,731 --> 00:17:24,640  
So that's the level.

283  
00:17:24,640 --> 00:17:30,392  
So we have 50, only 50 specialists that has the job to train that model and

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00:17:30,392 --> 00:17:34,816  
have to at the same time, the model has to learn from that and

285  
00:17:34,816 --> 00:17:37,311  
have to improve itself, right?

286  
00:17:37,311 --> 00:17:39,530  
So that's kind of like, that was the baseline.

287  
00:17:39,530 --> 00:17:43,040  
But that doesn't exist in the vacuum, right?

288  
00:17:43,040 --> 00:17:47,935  
So that kind of the doctor or the artificial doctor or

289  
00:17:47,935 --> 00:17:50,611  
doesn't exist in a vacuum.

290  
00:17:50,611 --> 00:17:54,694  
So it has to be trained somehow.

291  
00:17:54,694 --> 00:18:00,220  
My job as a designer is to come in, create a space where that that specific model

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00:18:00,220 --> 00:18:05,860  
can be trained and has to get input from the doctors like the actual specialist.

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00:18:05,860 --> 00:18:10,055  
So these people has to label the data in a way that they have to label the data base

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00:18:10,055 --> 00:18:13,042  
but they have to judge if the machine is doing a good job or

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00:18:13,042 --> 00:18:17,130

not based on the recommendation that the machine is giving, right?

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00:18:17,130 --> 00:18:21,930

And they have to kind of define what the machine has to do.

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00:18:21,930 --> 00:18:26,706

So I have to take that application, put that in a space where the doctors actually

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00:18:26,706 --> 00:18:30,920

can wants to use that because no doctor going to do like labeling work for

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00:18:30,920 --> 00:18:33,541

free and they are only 50 of those people.

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00:18:33,541 --> 00:18:36,120

So they have to integrate that in the work full that they use.

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00:18:36,120 --> 00:18:38,351

So basically I'm designing for two users.

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00:18:38,351 --> 00:18:40,430

I'm designed for the doctor itself.

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00:18:40,430 --> 00:18:42,930

So the doctor can accomplish their work.

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00:18:42,930 --> 00:18:44,150

It's useful for them.

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00:18:44,150 --> 00:18:45,580

It's user friendly.

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00:18:45,580 --> 00:18:47,260

It's worth daytime.

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00:18:47,260 --> 00:18:53,781

So it gives them a value at the same time it can train the model,

right?

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00:18:53,781 --> 00:18:59,824

So the model can profit of whatever input the doctors are giving their.

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00:18:59,824 --> 00:19:01,192

So they can explain the reasoning that they're making decisions,

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00:19:01,192 --> 00:19:02,130

can explain the feedback.

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00:19:02,130 --> 00:19:07,730

It's the language that the doctor talks to the machine is understood by the machine.

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00:19:07,730 --> 00:19:11,059

So like these are all the things that I have to take in consideration when I'm

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00:19:11,059 --> 00:19:11,650

designing.

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00:19:11,650 --> 00:19:16,301

So basically instead of only designing a software that would

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00:19:16,301 --> 00:19:19,125

help the doctors to get the job done,

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00:19:19,125 --> 00:19:24,791

I have to do something that at the same time creates value for the machine.

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00:19:24,791 --> 00:19:27,110

So the machine also get their job done.

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00:19:27,110 --> 00:19:29,091

So now I have two users to take considerations.

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00:19:29,091 --> 00:19:32,931

I have to understand what the machine is also like, how the machine talks what

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00:19:32,931 --> 00:19:37,630

the machine needs and how the machine can give back value for today user.

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00:19:37,630 --> 00:19:42,227

So that's pretty much like a scope of a project and my daily job how does it look

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00:19:42,227 --> 00:19:46,824

like is a lot of work in the sense of talking to the data scientist for example,

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00:19:46,824 --> 00:19:51,245

have to sit with them the whole time to understand how the data is labeled.

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00:19:51,245 --> 00:19:57,230

And to understand what's happening inside of the artificial brain.

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00:19:57,230 --> 00:20:02,330

And at the same time I have to lead like the whole engineer team because actually,

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00:20:02,330 --> 00:20:06,830

the machine learning problem is just a small slice instead of a big chunk

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00:20:06,830 --> 00:20:09,155

of engineer problem that has there,

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00:20:09,155 --> 00:20:12,990

because you have to have a product the end of the day, right?

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00:20:12,990 --> 00:20:19,021

So it's like you cannot like, the product is I would say is 90% of the work in,

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00:20:19,021 --> 00:20:25,330

10% it's just the powered by machine learning.

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00:20:25,330 --> 00:20:30,259

>> So I think if I try to see the connections also between what you

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00:20:30,259 --> 00:20:31,331  
are saying.

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00:20:31,331 --> 00:20:34,722  
I think clearly we see that there is a data element and

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00:20:34,722 --> 00:20:39,518  
I think both of you have clearly specified that whatever you're  
doing is

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00:20:39,518 --> 00:20:42,491  
only as good as the data that you fit in, right?

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00:20:42,491 --> 00:20:46,417  
So if you don't have data that is related to the problem then or

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00:20:46,417 --> 00:20:51,023  
that is also properly classified for whatever problem you're trying  
to

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00:20:51,023 --> 00:20:54,948  
solve then it doesn't really matter what AI or whatever fancy

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00:20:54,948 --> 00:20:59,571  
stuff you're going to use on it because that's kind of the  
foundation.

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00:20:59,571 --> 00:21:01,741  
But that's only the foundation because data in and of itself is  
nothing.

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00:21:01,741 --> 00:21:03,591  
You also have to make sense of the data.

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00:21:03,591 --> 00:21:07,013  
So if I also from my experience with with AI projects,

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00:21:07,013 --> 00:21:11,503  
this idea of classification or labeling becomes extremely important

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00:21:11,503 --> 00:21:16,461

because someone needs to make sense of what the data means and how do you know?

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00:21:16,461 --> 00:21:20,588

In some cases when the data is numerical, it's relatively straightforward and

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00:21:20,588 --> 00:21:24,130

you can kind of say, okay, this is what having this number implies.

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00:21:24,130 --> 00:21:28,173

But in this situation where you have to go through unstructured data or

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00:21:28,173 --> 00:21:31,751

when you have to go through data that is not so black and white.

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00:21:31,751 --> 00:21:34,380

So this classification decision is not so simple.

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00:21:34,380 --> 00:21:39,681

It becomes complicated and that's why when you need some sort of specialist or

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00:21:39,681 --> 00:21:42,573

you need someone that can label the data and

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00:21:42,573 --> 00:21:47,652

I think I find it very funny every time I have to do a capture on the internet.

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00:21:47,652 --> 00:21:50,358

I kind of know that I'm training AI, right?

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00:21:50,358 --> 00:21:52,921

Because it asks me where do you see a traffic light or where do you see a tree?

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00:21:52,921 --> 00:21:56,124

When do you know and I'm clicking on all those images and

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00:21:56,124 --> 00:22:00,571

I know that I'm kind of doing my duty to train AI to better recognize objects.

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00:22:00,571 --> 00:22:04,883

But that's the thing, that's the labeling part that of course AI can attempt

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00:22:04,883 --> 00:22:08,800

to do based on whatever data and whatever training said you gave it, but

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00:22:08,800 --> 00:22:12,741

still someone needs to come back and see, okay, have you classified?

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00:22:12,741 --> 00:22:14,351

Well how is it going?

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00:22:14,351 --> 00:22:18,451

And in the end again, how is this whole thing helping us solve the problem?

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00:22:18,451 --> 00:22:23,830

So it's a bit more complicated than many people would like to think.

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00:22:23,830 --> 00:22:29,471

I also wanted to ask you, so again, you've shared experience about your work and

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00:22:29,471 --> 00:22:33,340

and kind of what you do and the challenges that you face.

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00:22:33,340 --> 00:22:36,081

What are some recommendations that you would give?

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00:22:36,081 --> 00:22:41,575

Because part of our audience being at the business school are students and

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00:22:41,575 --> 00:22:45,385

we see that many students are extremely excited and

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00:22:45,385 --> 00:22:48,317

interested in learning more about AI.

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00:22:48,317 --> 00:22:51,854

What would be the recommendations that you would give for

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00:22:51,854 --> 00:22:56,054

someone who is just kind of fresh through their bachelor studies and

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00:22:56,054 --> 00:23:00,345

they're looking forward to getting some skills into the area of AI.

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00:23:00,345 --> 00:23:04,629

What would you recommend them to do or what what would be some resources that

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00:23:04,629 --> 00:23:12,473

they could tap into if they want to learn more and understand more?

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00:23:12,473 --> 00:23:15,649

>> Yeah, I think, I mean I kind of look back to when I started I guess.

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00:23:15,649 --> 00:23:19,063

I mean, I started essentially with no tech backgrounds and

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00:23:19,063 --> 00:23:22,067

it was really interesting because I mean I came in and

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00:23:22,067 --> 00:23:25,510

I was basically taught everything I did on the job as I went.

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00:23:25,510 --> 00:23:29,141

And the first thing I remember looking at in terms of specifically AI,

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00:23:29,141 --> 00:23:33,075

before I got to the AI preminary, I mean I was obviously the only had actually

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00:23:33,075 --> 00:23:35,597

code and learn different languages and stuff but

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00:23:35,597 --> 00:23:38,515

for someone especially in a business context, right?

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00:23:38,515 --> 00:23:41,198

All you really need to understand is okay, the very high levels of,

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00:23:41,198 --> 00:23:43,851

okay, this is a computer vision model, what is going to do is XYZ.

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00:23:43,851 --> 00:23:48,466

Which is identify images or identify objects and images and what you really,

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00:23:48,466 --> 00:23:52,869

all you need is just a very grasp basic understanding of kind of how has that

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00:23:52,869 --> 00:23:53,530

done it.

387

00:23:53,530 --> 00:23:58,780

You don't need to know okay, if I hyper tune this parameter in this specific code,

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00:23:58,780 --> 00:24:02,236

this is one little tweak to actually make this happen.

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00:24:02,236 --> 00:24:04,471

You don't need to know that, I don't even need to know that as much anymore

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00:24:04,471 --> 00:24:06,510

because I'm not building those kind of models out on a daily basis.

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00:24:06,510 --> 00:24:11,261

So fast AI which is a course that was built by Jeremy Howard out in Stanford I

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00:24:11,261 --> 00:24:16,473

think, maybe I'm getting the college wrong, but he's built out this

really,

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00:24:16,473 --> 00:24:21,533

really cool course and what that has done, and I'm happy to share the links and

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00:24:21,533 --> 00:24:25,785

stuff afterwards, but if you literally Google it pops right up.

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00:24:25,785 --> 00:24:27,611

And it's very broken down into understandable bit.

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00:24:27,611 --> 00:24:30,286

So I think it's like two hour lectures over seven lectures or

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00:24:30,286 --> 00:24:31,300

something like that.

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00:24:31,300 --> 00:24:34,031

And he essentially goes through, what does this all mean?

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00:24:34,031 --> 00:24:35,241

Like what is computer vision?

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00:24:35,241 --> 00:24:37,516

What is natural language processing?

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00:24:37,516 --> 00:24:40,690

All these things in a very non coding format.

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00:24:40,690 --> 00:24:44,070

There's a bit of coding there where you can actually tell you how it happens, but

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00:24:44,070 --> 00:24:46,921

he goes to essentially how does it work, what's the max behind it?

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00:24:46,921 --> 00:24:48,910

Without going to in depth into it.

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00:24:48,910 --> 00:24:53,804

And that will be more than enough I think, to have a workable knowledge of

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00:24:53,804 --> 00:24:58,232

what's going on in these projects from a business perspective.

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00:24:58,232 --> 00:25:00,923

If you really want to go get really in depth into it,

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00:25:00,923 --> 00:25:03,865

start actually doing the codes are there in the fast AI,

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00:25:03,865 --> 00:25:08,185

start using kind of AWS Google Azure, they've all got platforms that are readily

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00:25:08,185 --> 00:25:10,720

available to create your own models and stuff.

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00:25:10,720 --> 00:25:14,604

Off you go, give it a shot, each of their own websites have loads of demos and

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00:25:14,604 --> 00:25:18,734

stuff, literally, they have like step by step double so you can follow along and

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00:25:18,734 --> 00:25:22,620

they'll give you free credits to go do all the stuff they want you to use their

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00:25:22,620 --> 00:25:23,330

platforms.

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00:25:23,330 --> 00:25:25,641

So there's loads of resources available.

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00:25:25,641 --> 00:25:26,451

I think a good place.

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00:25:26,451 --> 00:25:29,623

The 100% is fast AI, just because it really breaks it down to

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00:25:29,623 --> 00:25:33,681

such understandable levels that once you kind of have that grasp understanding,

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00:25:33,681 --> 00:25:36,384

they're like, okay, I can figure everything out now

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00:25:36,384 --> 00:25:40,630

moving forward whether it's going further into it or even more abstract out of it.

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00:25:40,630 --> 00:25:41,619

>> All right, Marah.

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00:25:41,619 --> 00:25:47,133

>> I think it's really dependent of what where

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00:25:47,133 --> 00:25:56,230

which part they want to take like as a fresh business person.

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00:25:56,230 --> 00:26:00,881

I think there is one- you can think about like the applications, right?

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00:26:00,881 --> 00:26:07,680

Like the first thing to understand is that AI is not a future, right?

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00:26:07,680 --> 00:26:12,130

It's just one more part of the product that you're working with or working on.

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00:26:12,130 --> 00:26:13,945

And from that from that point of view,

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00:26:13,945 --> 00:26:17,780

like first you have to understand what kind of problem you're trying to solve.

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00:26:17,780 --> 00:26:22,049

Like if you're trying to solve a problem then you're going the

product area and

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00:26:22,049 --> 00:26:26,127

then you have to have a understanding of, actually understanding of design

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00:26:26,127 --> 00:26:30,931

understanding of like people's needs and what you're trying to enable there, right?

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00:26:30,931 --> 00:26:34,111

And then you can go like more B to B that you're like working for infrastructure.

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00:26:34,111 --> 00:26:38,230

So what kind of capacity you're trying to pry into power?

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00:26:38,230 --> 00:26:42,887

Like let's say if you're trying to power image recognition because with that you

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00:26:42,887 --> 00:26:45,990

can do like, you don't care about the application but

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00:26:45,990 --> 00:26:50,000

you're trying to power image recognition as it is, as a technology.

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00:26:50,000 --> 00:26:53,523

Then you are more working like on this backstage of the of the thing and

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00:26:53,523 --> 00:26:55,310

what's the valued thing as well.

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00:26:55,310 --> 00:26:57,911

So like you have to understand like where you want to be and and

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00:26:57,911 --> 00:27:00,230

then send all of those layers first, right?

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00:27:00,230 --> 00:27:04,598

And and then there is like plenty of resource from that point of

view on online

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00:27:04,598 --> 00:27:08,650

right now because there is a lot of people doing quite good work.

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00:27:08,650 --> 00:27:13,913

There is the one that I can recommend and there's a bit biased because

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00:27:13,913 --> 00:27:19,447

it's from Google, it's called People + AI, I can send you the link but

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00:27:19,447 --> 00:27:24,918

people + AI research, so that the link will pair.withgoogle.com.

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00:27:24,918 --> 00:27:29,844

And there you have like a lot of really nice guidelines of how to

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00:27:29,844 --> 00:27:32,686

help take AI in your products like,

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00:27:32,686 --> 00:27:37,921

from the ethical point of view from like user needs point of view.

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00:27:37,921 --> 00:27:42,333

And I think that's super relevant if you're not going to research like,

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00:27:42,333 --> 00:27:46,614

if you're not going into academic research on machine learning so on.

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00:27:46,614 --> 00:27:50,220

Those things that are extremely relevant because they are your main outlet.

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00:27:50,220 --> 00:27:53,530

Either if you're working like B to B or B to C.

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00:27:53,530 --> 00:27:58,489

It's gonna give you the first insides of what you have to consider and

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00:27:58,489 --> 00:28:02,861

also like understand again that AI is not a teacher, right?

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00:28:02,861 --> 00:28:06,987

It's not something that you put that you that exists on the vacuum and

456

00:28:06,987 --> 00:28:08,360

people want to buy it.

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00:28:08,360 --> 00:28:11,790

People actually don't care who's delivering the service, right?

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00:28:11,790 --> 00:28:14,891

People care that the service is delivered and how it's delivered.

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00:28:14,891 --> 00:28:19,530

Like if it's cheaper, it's like what AI does make it accessible, right?

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00:28:19,530 --> 00:28:25,791

So, and that's the only leverage that's important for reaching markets, right?

461

00:28:25,791 --> 00:28:31,225

Like for making your product like successful is actually you don't

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00:28:31,225 --> 00:28:37,533

deliver a better product, you just deliver it cheaper and the standardized.

463

00:28:37,533 --> 00:28:40,499

So you can set about of quality and enable and empower,

464

00:28:40,499 --> 00:28:42,710

like a lot of people to do stuff, right?

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00:28:42,710 --> 00:28:47,550

And that's the only leverage the relying on the full AI thing,

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00:28:47,550 --> 00:28:49,295

I think is that there.

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00:28:49,295 --> 00:28:52,390

>> So kind of really the if I again try to summarise across what you are saying,

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00:28:52,390 --> 00:28:55,011

it's part of the same saying but different approach, right?

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00:28:55,011 --> 00:28:57,351

So of course, technology is fantastic and

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00:28:57,351 --> 00:29:01,641

it's great to be aware of all the options out there and of course it depends very

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00:29:01,641 --> 00:29:05,996

much how deep you want to get into the tech part of whether it's the coding part,

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00:29:05,996 --> 00:29:09,340

or whether it's the hardware part, etcetera, etcetera.

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00:29:09,340 --> 00:29:13,465

But still at the end of the day it's about solving some sort of problem and

474

00:29:13,465 --> 00:29:17,656

providing some sort of value to different stakeholders, which is more or

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00:29:17,656 --> 00:29:21,237

less the point, or at least in my view, the point of business or

476

00:29:21,237 --> 00:29:22,821

at least of good business.

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00:29:22,821 --> 00:29:28,699

And of course, while doing that, trying to take care of society on the whole and

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00:29:28,699 --> 00:29:34,161

not being too heavy on the resources, so really no big challenges there.

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00:29:34,161 --> 00:29:37,537

But if we can maybe look a bit to the future and

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00:29:37,537 --> 00:29:42,646

you guys know quite well what AI is at the moment and what it can do and

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00:29:42,646 --> 00:29:51,030

you probably have some very good ideas of applications that are currently running.

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00:29:51,030 --> 00:29:56,512

Because I think that's also part of the discussion around AI.

483

00:29:56,512 --> 00:29:57,530

Right?

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00:29:57,530 --> 00:30:02,752

If we look to 10, 20, 50 years in the future,

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00:30:02,752 --> 00:30:07,383

what kind of problems and especially these big

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00:30:07,383 --> 00:30:12,031

world problems if you will can AI help us with.

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00:30:12,031 --> 00:30:17,620

So here I'm just kind of inviting you to think also maybe outside of your the scope

488

00:30:17,620 --> 00:30:23,042

of your jobs and dream in terms of, okay, you've seen what it can do, but what

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00:30:23,042 --> 00:30:28,991

would be something really cool that we can look forward to potentially in the future.

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00:30:28,991 --> 00:30:33,549

And here we can also think about these types of big pictures related to

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00:30:33,549 --> 00:30:38,680

sustainability or corporate responsibility, resources, ethics, etc.

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00:30:38,680 --> 00:30:43,811

So this is the point of the discussion where you are free to go into Sci

493

00:30:43,811 --> 00:30:48,852

fi territory and I'm very happy to hear at least what are some ideas

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00:30:48,852 --> 00:30:54,370

that you find inspiring even though maybe they might not go to fruition.

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00:30:54,370 --> 00:31:00,098

>> I think, the learning space like when I think about like cognitive

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00:31:00,098 --> 00:31:07,030

work that is not scalable is education, Education is not scalable at all.

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00:31:07,030 --> 00:31:11,274

You can be exposed to content and then you learn something but there is no

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00:31:11,274 --> 00:31:16,100

one there to tell you if you're learning something or not until you practice it.

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00:31:16,100 --> 00:31:17,030

Right?

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00:31:17,030 --> 00:31:20,774

And I think making education more accessible so

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00:31:20,774 --> 00:31:24,892

that more people in the global files for example, or

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00:31:24,892 --> 00:31:29,947

I don't know someone in the countryside in brazil and brazil and

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00:31:29,947 --> 00:31:35,470

by the way, a person countryside in brazil can learn whatever skill  
or

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00:31:35,470 --> 00:31:42,021

can learn whatever profession they want to learn and having like  
this a campaign and

505

00:31:42,021 --> 00:31:48,597

like engage experience that you would have with a tutor I think it's  
mind blowing.

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00:31:48,597 --> 00:31:50,203

Right? Or for example,

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00:31:50,203 --> 00:31:54,051

also learning a language that doesn't exist anymore.

508

00:31:54,051 --> 00:31:57,263

Right? Having the chance of experiencing culture

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00:31:57,263 --> 00:32:02,422

or experience a content that's not there anymore or it's like only a  
few people

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00:32:02,422 --> 00:32:07,896

know about that and you have the chance to practice that from  
whatever place you are.

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00:32:07,896 --> 00:32:13,690

That is so wholesome and I kind of hate you for saying that because  
I'm like.

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00:32:13,690 --> 00:32:14,593

[INAUDIBLE].

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00:32:14,593 --> 00:32:18,590

I'm sitting here, I'm like, what is going to happen?

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00:32:18,590 --> 00:32:20,664

And I think, I mean I say this all time, I'm like,

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00:32:20,664 --> 00:32:23,656

I don't know what my own five year future is going to look like because I can

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00:32:23,656 --> 00:32:25,930

barely tell you what it's going to happen tomorrow.

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00:32:25,930 --> 00:32:30,027

Everything just keeps changing on me so I couldn't even tell you, like three years

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00:32:30,027 --> 00:32:33,970

ago, I never saw myself being in tech, let alone talking about AI and Podcast.

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00:32:33,970 --> 00:32:39,266

But I think I'm a big passionate person about talking around auto ML and

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00:32:39,266 --> 00:32:44,035

low code applications and kind of essentially democratizing AI

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00:32:44,035 --> 00:32:48,888

like that is a very passion project for me and 90% of the talks,

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00:32:48,888 --> 00:32:53,250

the tech talks I tend to do surround that aspect of things.

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00:32:53,250 --> 00:32:58,689

So yeah, I mean what that is essentially enabling is, look, there's data everywhere

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00:32:58,689 --> 00:33:03,610

I produce data myself about myself on a daily basis that I can't even leverage,

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00:33:03,610 --> 00:33:08,091

like as a day to sign doesn't mean I can download all my chat on Facebook or

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00:33:08,091 --> 00:33:12,719

whatever else and I don't even know what I can do with it because I'm like,

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00:33:12,719 --> 00:33:16,905

it's there, it's gonna take me years and like computer powers and

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00:33:16,905 --> 00:33:20,620

going on doing all this kind of stuff to do anything with it.

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00:33:20,620 --> 00:33:25,184

And the hope obviously is like the more into the future we get the fact that there

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00:33:25,184 --> 00:33:29,956

is the Azure, I keep saying Azure I'm just so used to saying Azure but like cloud,

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00:33:29,956 --> 00:33:34,449

is available to you to not have to buy a big hefty machine to not be able to like,

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00:33:34,449 --> 00:33:38,944

I mean it's very quick to loan that out and just use it to whatever you need it to

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00:33:38,944 --> 00:33:43,651

be, whether that's machine learning or whether that's just surfing the web,

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00:33:43,651 --> 00:33:47,870

like whatever else it might be, it's reducing that barrier to entry.

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00:33:47,870 --> 00:33:52,443

And then once you're in there, I mean I've seen people who are doctors who studied

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00:33:52,443 --> 00:33:56,495

their whole lives into being doctors, they're experts and say cancer or

537

00:33:56,495 --> 00:33:58,530

whatever else that might be.

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00:33:58,530 --> 00:34:01,943

They don't need to then be like connected to someone who is a data scientist,

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00:34:01,943 --> 00:34:05,303

if we make these things really accessible and low code, they can actually go

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00:34:05,303 --> 00:34:08,979

leverage their own machine learning models to help them identify specific cells or

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00:34:08,979 --> 00:34:12,131

whatever else it might be it's just getting that power to everyone else

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00:34:12,131 --> 00:34:14,690

like really democratizing it I think it's really cool.

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00:34:14,690 --> 00:34:19,221

You don't need to have spent whatever many years being a PhD in machine learning or

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00:34:19,221 --> 00:34:23,162

math or whatever else to really understand and use that kind of stuff for

545

00:34:23,162 --> 00:34:27,626

yourself it's gonna be something really cool I think there's a lot of work being

546

00:34:27,626 --> 00:34:30,712

done in that space to make it as easy as possible to use and

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00:34:30,712 --> 00:34:34,127

leverage that thing I hope that happens, but if it doesn't,

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00:34:34,127 --> 00:34:37,190

I'll keep harping about it and I'll die on that hill.

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00:34:37,190 --> 00:34:38,530

>> Okay.

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00:34:38,530 --> 00:34:41,870

Yeah, and I would like that to build on that like,

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00:34:41,870 --> 00:34:46,740

this democratizing has a lot to do as well with making things invisible.

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00:34:46,740 --> 00:34:48,996

Right? Because the moment that it's so

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00:34:48,996 --> 00:34:51,607

evident that you are using this AI thing and so

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00:34:51,607 --> 00:34:56,370

on, it's kind of like push away people, if people don't want to deal with that.

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00:34:56,370 --> 00:34:58,986

It's like imagine that every time you want to make a phone call,

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00:34:58,986 --> 00:35:01,464

you have to understand about micro computing engineering.

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00:35:01,464 --> 00:35:02,512

Right? It's like, no,

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00:35:02,512 --> 00:35:05,807

you're never going to do the phone call so you don't achieve your goals,

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00:35:05,807 --> 00:35:09,420

you don't connect to people, you don't do this stuff because that is too much in

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00:35:09,420 --> 00:35:11,972

between there's too much cognitive load between you and

561

00:35:11,972 --> 00:35:13,649  
the things that you want to achieve.

562

00:35:13,649 --> 00:35:15,850  
Right? But the moment that the thing is there and

563

00:35:15,850 --> 00:35:19,611  
is invisible and it's like how much of the things can you actually  
care about?

564

00:35:19,611 --> 00:35:25,498  
For example going back to the doctor thing like analyzing the cells  
how much

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00:35:25,498 --> 00:35:31,868  
they can spare time with like dual jobs and actually spend time with  
the patient.

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00:35:31,868 --> 00:35:32,629  
Right? Like and

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00:35:32,629 --> 00:35:35,633  
take care of like the things that machine cannot do that's being  
empathic with

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00:35:35,633 --> 00:35:38,630  
a human being that's suffering right now from cancer for example.

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00:35:38,630 --> 00:35:41,217  
Right? So the whole the whole idea like of

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00:35:41,217 --> 00:35:45,154  
personality shifts because with everyone can be a doctor

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00:35:45,154 --> 00:35:48,681  
like in the sense of gathering having the skills and

572

00:35:48,681 --> 00:35:52,538  
the technical knowledge to understand the diseases and

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00:35:52,538 --> 00:35:57,900

the final diagnosed and they find the treatment when you lower that barrier.

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00:35:57,900 --> 00:36:01,978

You enable a lot of people to develop what other kind of skills that are way more

575

00:36:01,978 --> 00:36:05,888

necessary than actually knowing if you like because it's a prime error.

576

00:36:05,888 --> 00:36:08,501

Right? The medicine like if you give them a pill

577

00:36:08,501 --> 00:36:11,289

doesn't work, give them another treatment

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00:36:11,289 --> 00:36:15,350

I saw the study that if you give them like five pills it works you know?

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00:36:15,350 --> 00:36:19,824

And and actually focus on carrying that the person gets better and carrying how

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00:36:19,824 --> 00:36:24,363

they work anyway so, that I think like invisibility gonna be the future of AI and

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00:36:24,363 --> 00:36:28,632

it's going to be like oxygen like you don't think about breathing if you go

582

00:36:28,632 --> 00:36:32,430

around it's just there and you enjoy it.

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00:36:32,430 --> 00:36:34,919

>> I think to that point it's kind of already happening.

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00:36:34,919 --> 00:36:37,354

Right? I mean I don't know there's not many

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00:36:37,354 --> 00:36:42,146

people who don't necessarily look at their phone I mean to open my phone I have face

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00:36:42,146 --> 00:36:46,400

ID locked on there and I think about it that's AI in built into our lives.

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00:36:46,400 --> 00:36:50,549

The amount of people who will never consider that as an AI in their life is

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00:36:50,549 --> 00:36:54,215

bizarre to me to be honest are like the homes like the smartphone

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00:36:54,215 --> 00:36:55,621

things already there.

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00:36:55,621 --> 00:36:59,279

People use it constantly and never think about the fact that that's natural

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00:36:59,279 --> 00:37:03,568

language processing happening because it's listening to me and understanding that and

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00:37:03,568 --> 00:37:07,285

converting that to other things it's just there it's always start to happen

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00:37:07,285 --> 00:37:11,060

it would be really interesting how much it will actually implement itself into

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00:37:11,060 --> 00:37:12,010

our lives I guess.

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00:37:12,010 --> 00:37:13,830

>> It's also like AI. >> Yeah, that's right.

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00:37:13,830 --> 00:37:18,324

>> OR the snapchats or Instagram futures like all of

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00:37:18,324 --> 00:37:23,037

those stuff are they already and people enjoy it and

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00:37:23,037 --> 00:37:29,130

it's kind of making their life joyful and youthful and so on.

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00:37:29,130 --> 00:37:29,771

>> All right?

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00:37:29,771 --> 00:37:34,483

So we are slowly moving towards the conclusion of our discussion and

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00:37:34,483 --> 00:37:39,608

I think there were a lot of very interesting things that were mentioned and

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00:37:39,608 --> 00:37:44,486

I would just like to kind of address some specific questions now to each

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00:37:44,486 --> 00:37:47,792

of you towards towards the end because I think,

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00:37:47,792 --> 00:37:52,502

you mentioned something which to me is something that I had to always

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00:37:52,502 --> 00:37:57,380

learn the hard way, especially part of this research work that I do and

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00:37:57,380 --> 00:38:02,917

also working with students where I see a lot of enthusiasm about a lot of things,

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00:38:02,917 --> 00:38:07,900

but I find myself saying this quite a lot, don't reinvent the wheel.

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00:38:07,900 --> 00:38:12,335

So every time I have a project with students in which we're trying to, develop

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00:38:12,335 --> 00:38:16,838

a service that's going to help solve some sort of problem it's always about and

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00:38:16,838 --> 00:38:20,825

now let's create this app and this app is going to change everything.

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00:38:20,825 --> 00:38:22,568

Right? And I always say, okay,

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00:38:22,568 --> 00:38:26,721

but have you considered all the other options that are already out there?

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00:38:26,721 --> 00:38:28,201

Do you need to create the new app?

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00:38:28,201 --> 00:38:32,261

Why would people use the up and so on and so forth so, when it comes to AI

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00:38:32,261 --> 00:38:36,401

what are your recommendations in terms of not reinventing the wheel?

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00:38:36,401 --> 00:38:40,758

I think that everybody, and this is again where hubris comes in,

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00:38:40,758 --> 00:38:45,671

everybody wants to create the next big kind of thing that is going to change

618

00:38:45,671 --> 00:38:49,237

everything, but how to avoid that and how to really,

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00:38:49,237 --> 00:38:53,065

make these steps towards making things better and yeah.

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00:38:53,065 --> 00:38:56,412

>> Yeah, I mean, I think more, I would agree, like,

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00:38:56,412 --> 00:38:59,927

I mean anything we're creating is to solve a problem.

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00:38:59,927 --> 00:39:01,522

Right? And it's a people problem,

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00:39:01,522 --> 00:39:04,624

like that's where the whole design stuff comes in, which I mean design and

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00:39:04,624 --> 00:39:07,530

data work so well together and like not enough people talk about that,

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00:39:07,530 --> 00:39:10,120

which is why I'm glad you had these two different sides of it.

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00:39:10,120 --> 00:39:13,724

But yeah, that's the essence of it, is like you're trying to solve a problem,

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00:39:13,724 --> 00:39:17,331

not necessarily that you're building something that is like innovatively cool

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00:39:17,331 --> 00:39:17,990

no one cares.

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00:39:17,990 --> 00:39:21,357

Dyson does really, really cool stuff I love their hair dryer I paid ridiculous

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00:39:21,357 --> 00:39:24,981

amounts of money for it, but I don't sit there thinking about the technology behind

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00:39:24,981 --> 00:39:27,720

him, just like, hey, it's doing this job by drying my hair.

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00:39:27,720 --> 00:39:32,173

So the same kind of goes with AI nobody cares if you've spent literally three

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00:39:32,173 --> 00:39:36,906

years building out this perfect algorithm that is 98% accurate when you could

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00:39:36,906 --> 00:39:41,777

have literally just leverage, say the auto ml that as your offers, which gives you

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00:39:41,777 --> 00:39:46,717

96% accuracy and have it done in two days, no one's gonna care actually they will

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00:39:46,717 --> 00:39:51,446

care because hey, it took three years to do this, I could have had this two days,

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00:39:51,446 --> 00:39:54,840

like two years ago that kind of thing plays into it for me.

638

00:39:54,840 --> 00:39:58,910

So the things I've noticed and I've used them in my own projects and stuff Azure

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00:39:58,910 --> 00:40:03,102

has done really, really cool stuff I'm sure other platforms have done that too,

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00:40:03,102 --> 00:40:07,050

but I guess this is my bias coming through is just what I used predominantly but

641

00:40:07,050 --> 00:40:10,451

auto ML by then the cognitive services like it's just click four or

642

00:40:10,451 --> 00:40:14,158

five buttons and you've got a machine learning model that's ready to be

643

00:40:14,158 --> 00:40:16,880

implemented into an app you already have existing.

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00:40:16,880 --> 00:40:21,230

It is crazy cool stuff with power comes responsibility please don't

645

00:40:21,230 --> 00:40:24,080

forget that there is ethics involved here but

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00:40:24,080 --> 00:40:29,111

I mean at the same time it is removing a lot of bias about having already created.

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00:40:29,111 --> 00:40:31,641

I'm hoping the underneath machine learning models

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00:40:31,641 --> 00:40:34,629

are not biased that's a whole different issue altogether but

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00:40:34,629 --> 00:40:38,365

those things exist cognitive services their cognitive searches there where

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00:40:38,365 --> 00:40:42,030

you can literally implement any kind of really detailed search.

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00:40:42,030 --> 00:40:45,755

I think it took me 10 minutes to set one up the other day where I was creating

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00:40:45,755 --> 00:40:49,779

a demo for something ready to go it will search through whatever document you want

653

00:40:49,779 --> 00:40:53,821

to put into it within your own context and that's all it takes and I recommend it.

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00:40:53,821 --> 00:40:58,075

Like there's so many tutorials I've done talks that are available online for

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00:40:58,075 --> 00:41:01,944

free go read about it like they made the effort to actually make it really

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00:41:01,944 --> 00:41:06,328  
understandable and very quickly and easily consumable as well at the same time so

657  
00:41:06,328 --> 00:41:09,830  
that's what I would say it's my suggestion I guess.

658  
00:41:09,830 --> 00:41:10,504  
>> All right?

659  
00:41:10,504 --> 00:41:15,389  
>> And Morrow you said something that really sparked a kind of a light bulb in

660  
00:41:15,389 --> 00:41:20,593  
my head, you said that when you're designing you're not just designing for

661  
00:41:20,593 --> 00:41:25,110  
the human element, but you're also designing for the AI client.

662  
00:41:25,110 --> 00:41:29,905  
And can you tell us a bit more about how is it to design for

663  
00:41:29,905 --> 00:41:34,281  
AI as in it's a very empathic way of looking at it,

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00:41:34,281 --> 00:41:38,763  
which I haven't seen in a lot of these tech talks and

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00:41:38,763 --> 00:41:43,558  
a lot of these articles that I'm reading about how AI is

666  
00:41:43,558 --> 00:41:48,562  
going to take over and do all sorts of nefarious things and

667  
00:41:48,562 --> 00:41:54,131  
you're talking about designing with the value for AI in mind.

668  
00:41:54,131 --> 00:41:57,030  
So can you just expand about that a bit?

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00:41:57,030 --> 00:41:57,690

>> Yes, sir.

670

00:41:57,690 --> 00:42:03,098

If you have a kid, you don't understand that very well it's the same thing.

671

00:42:03,098 --> 00:42:04,443

Right? Like you said,

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00:42:04,443 --> 00:42:08,652

you're telling your kids like if you put your finger in the power plug,

673

00:42:08,652 --> 00:42:12,526

you're gonna get a shock and they have no data evidence for that.

674

00:42:12,526 --> 00:42:15,653

Right? And then so they cannot make the judgment,

675

00:42:15,653 --> 00:42:19,415

they cannot identify where is danger, where it's not and

676

00:42:19,415 --> 00:42:24,712

that's what you do with AI it's exactly the same logic of educating these small,

677

00:42:24,712 --> 00:42:28,624

really simple minded being in to do a task that you want to do so

678

00:42:28,624 --> 00:42:33,191

different from a kid that to learn from everything in sight response.

679

00:42:33,191 --> 00:42:38,378

They I only have the data that you have there and only talk to one specific

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00:42:38,378 --> 00:42:42,973

language and cannot understand really simple correlations.

681

00:42:42,973 --> 00:42:47,011

Right? Every time you try to add one more data

682

00:42:47,011 --> 00:42:52,124

point one more labelling it's just like everything

683

00:42:52,124 --> 00:42:57,468

that's just more messy and messy with the accuracy and

684

00:42:57,468 --> 00:43:04,569

also like it's kind of like breaks the service that you want to deliver.

685

00:43:04,569 --> 00:43:05,151

Right?

686

00:43:05,151 --> 00:43:09,855

So you're training a really dumb employee to deliver a job that's

687

00:43:09,855 --> 00:43:14,643

what you're trying to do that space so you have to be really clear and

688

00:43:14,643 --> 00:43:19,431

you have to think like what are the data entry points that the machine

689

00:43:19,431 --> 00:43:24,230

needs in order to learn in order to perform the job better.

690

00:43:24,230 --> 00:43:26,250

Right? Like how can you make that effort?

691

00:43:26,250 --> 00:43:28,839

Of course there is like a lot of deep learning and

692

00:43:28,839 --> 00:43:32,466

things that make the machine learned by itself but still like how to

693

00:43:32,466 --> 00:43:37,730

create the applications that create the interface between user machine backwards.

694

00:43:37,730 --> 00:43:42,089

Like every time you use something in google you'll give feedback.

695

00:43:42,089 --> 00:43:45,655

Right? That's the data point every time your tax,

696

00:43:45,655 --> 00:43:50,700

you write something on the google docs, you're creating a data point

697

00:43:50,700 --> 00:43:55,674

of of like how the world works or your training your spell corrector.

698

00:43:55,674 --> 00:43:56,250

Right? So

699

00:43:56,250 --> 00:44:00,767

all of those things they are data points that go into the model if the model well

700

00:44:00,767 --> 00:44:05,632

built, we're gonna learn faster and less and less, you have this idea that we're

701

00:44:05,632 --> 00:44:09,733

talking like, if it's well done the model, then you have less design

702

00:44:09,733 --> 00:44:14,630

interface the machine gets more and more invisible and that's your goal.

703

00:44:14,630 --> 00:44:19,210

And then of the day you want to have like something that the system is not seeing

704

00:44:19,210 --> 00:44:20,493

things just happen.

705

00:44:20,493 --> 00:44:21,330

Right?

706

00:44:21,330 --> 00:44:24,685

It's a bit like to think in a car drive and

707

00:44:24,685 --> 00:44:28,347

a self driving car, like if you grab a taxi.

708

00:44:28,347 --> 00:44:29,980

Right? You get a cab or

709

00:44:29,980 --> 00:44:34,408

Uber or something to go to the airport, you actually,

710

00:44:34,408 --> 00:44:38,469

most of the time you don't care about the driver.

711

00:44:38,469 --> 00:44:40,630

Right? You just want to get to your location,

712

00:44:40,630 --> 00:44:43,986

not that you like when you're ordering a cab, you go like a bit like  
Tinder,

713

00:44:43,986 --> 00:44:47,290

I don't like this driver I don't like to drive and now, I'm gonna  
get it,

714

00:44:47,290 --> 00:44:48,192

you don't do that.

715

00:44:48,192 --> 00:44:50,335

Right? Or you like to see cars passing and

716

00:44:50,335 --> 00:44:53,117

say, I like this car now, I don't like this car,

717

00:44:53,117 --> 00:44:56,384

you don't care you just want to get to where you want to go.

718

00:44:56,384 --> 00:44:58,989

Right? And that's the main thing about self

719

00:44:58,989 --> 00:45:03,821

driving cars as well as that there is no difference between self driving car and

720

00:45:03,821 --> 00:45:07,056

a taxi from the perspective of getting the job done.

721

00:45:07,056 --> 00:45:07,667

Right? And

722

00:45:07,667 --> 00:45:11,462

that's the overall goal overarching goal is like to be so

723

00:45:11,462 --> 00:45:18,130

invisible that it's indistinguishable from a service delivery from a person.

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00:45:18,130 --> 00:45:18,846

>> All right?

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00:45:18,846 --> 00:45:23,662

So to kind of bring everything together, whether it's from a data

726

00:45:23,662 --> 00:45:28,478

science perspective or whether it's from a design perspective,

727

00:45:28,478 --> 00:45:33,380

it's still kind of boils down to figuring out what the problem is and

728

00:45:33,380 --> 00:45:38,470

how do you solve that problem and how do you offer value in the process?

729

00:45:38,470 --> 00:45:42,670

While of course leveraging all the technology and

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00:45:42,670 --> 00:45:47,670

the complicated machine learning and algorithm and so on,

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00:45:47,670 --> 00:45:52,370

but while still having this human element that either is

732

00:45:52,370 --> 00:45:57,170

part of defining the problem or making sense of the data or

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00:45:57,170 --> 00:46:01,770

then later on evaluating and providing feedback and so

734

00:46:01,770 --> 00:46:06,200

on and, determine to what extent value is created.

735

00:46:06,200 --> 00:46:10,877

So still quite a human problem in the end of human problem,

736

00:46:10,877 --> 00:46:15,184

human solution and again, trying to provide value.

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00:46:15,184 --> 00:46:20,087

I want to thank both of you for this talk again, it's been so

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00:46:20,087 --> 00:46:22,834

fun hearing your perspective and

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00:46:22,834 --> 00:46:28,033

trying to kind of bridge them and I think the bridges were fairly

740

00:46:28,033 --> 00:46:32,938

clear if people want to hear more about what you're doing or

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00:46:32,938 --> 00:46:37,971

see other talks that you've done, where can they find you?

742

00:46:37,971 --> 00:46:39,880

We will of course also have links, but

743

00:46:39,880 --> 00:46:45,630

if there's anything that you would like to plug now this would be the time.

744

00:46:45,630 --> 00:46:50,152

>> Yeah, I think twitter like to enrich out wherever I'm always

happy to help,

745

00:46:50,152 --> 00:46:54,257

preferably Twitter, LinkedIn gets clogged up very quickly but hey,

746

00:46:54,257 --> 00:46:58,777

I mean if you want to hear more from me, I run my own podcast as well actually and

747

00:46:58,777 --> 00:47:02,211

it's a bit more around different career paths into tech.

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00:47:02,211 --> 00:47:06,126

So if you are out there listening and you might want to switch into a career in tech

749

00:47:06,126 --> 00:47:09,926

come along this and I'm sure you'll find somebody who's had the same kind of

750

00:47:09,926 --> 00:47:12,530

journey as you in a wild on traditional way into it.

751

00:47:12,530 --> 00:47:16,170

I mean the one that's coming out tomorrow is a ballet dancer who's turned into an AI

752

00:47:16,170 --> 00:47:17,630

person so it's very cool stuff.

753

00:47:17,630 --> 00:47:19,860

>> Feel free to also drop the name.

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00:47:19,860 --> 00:47:21,774

So what is your podcast called?

755

00:47:21,774 --> 00:47:23,345

>> Yes. >> And where can you find it?

756

00:47:23,345 --> 00:47:25,365

>> Shamelessly plugging myself and

757

00:47:25,365 --> 00:47:29,530

not even knowing how to do it path uncovered was the podcast.

758

00:47:29,530 --> 00:47:30,935

>> All right. Path uncovered.

759

00:47:30,935 --> 00:47:31,551

Thank you.

760

00:47:31,551 --> 00:47:35,690

Morrow where can people find you and see what you're thinking and doing?

761

00:47:35,690 --> 00:47:40,796

>> I think Twitter and Instagram are the true main space where I share stuff so

762

00:47:40,796 --> 00:47:46,090

if you just find them all relax and none of those stuff you're gonna find me.

763

00:47:46,090 --> 00:47:51,700

I have some talks scheduled next month in the San Francisco design

764

00:47:51,700 --> 00:47:57,718

week we're going to talk exactly about what's AI for for designers,

765

00:47:57,718 --> 00:48:04,830

so it's gonna be like a more 45 minutes me talking about exactly this topic.

766

00:48:04,830 --> 00:48:10,505

It's going to be available live and and people can watch it from anywhere

767

00:48:10,505 --> 00:48:16,270

besides that I have also podcast, but only I only have five episodes there and

768

00:48:16,270 --> 00:48:22,212

it's unfortunately in bad German where we talk about education technology and

769

00:48:22,212 --> 00:48:27,533

basically there is one episode that's exactly about what's the AI for

770

00:48:27,533 --> 00:48:33,430

education and how that can impact the whole life sort of schools.

771

00:48:33,430 --> 00:48:37,397

>> If someone wants to practice their bad German, what would be the podcast.

772

00:48:37,397 --> 00:48:39,090

What's the name of the podcast?

773

00:48:39,090 --> 00:48:41,830

>> It's called Buildings, hack.

774

00:48:41,830 --> 00:48:42,850

>> Buildings, hack.

775

00:48:42,850 --> 00:48:43,584

All right?

776

00:48:43,584 --> 00:48:44,180

Awesome.

777

00:48:44,180 --> 00:48:48,649

So we will also of course provide all the all the links in the description so

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00:48:48,649 --> 00:48:52,612

I want to thank both of you again for taking the time to talk to us and

779

00:48:52,612 --> 00:48:56,649

we look forward to also hearing what some of our listeners think and

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00:48:56,649 --> 00:48:59,360

what the conversation around that will be.

781

00:48:59,360 --> 00:49:00,971  
So thanks again.

782  
00:49:00,971 --> 00:49:03,980  
And yeah, that's it.

783  
00:49:03,980 --> 00:49:05,968  
Thanks for inviting Robert.

784  
00:49:05,968 --> 00:49:06,860  
>> [INAUDIBLE].

785  
00:49:06,860 --> 00:49:07,551  
>> Thank you.

786  
00:49:07,551 --> 00:49:08,075  
[INAUDIBLE].

787  
00:49:08,075 --> 00:49:28,596  
[MUSIC].