

Podcast series: Leading for Interdisciplinary Creativity

IDBM programme at Aalto University

## Episode 4

Length: 51.50 min

Guest: Elina Hiltunen

Host: Irina Viippola

**Elina:** [00:00:00] You are looking at the facts and then you add the imagination. So anticipating the future equals facts plus imagination.

Aalto University Podcast.

**Irina:** This is leading for Interdisciplinary Creativity and I am your host Irina Viippola. In this episode, we're exploring the future with renowned futurist Elina Hiltunen. We'll discuss her insights on predicting what lies ahead and how to spot intriguing weak signals. We'll also examine AI's impact on work life and the creative business landscape.

Plus, Elina shares stories from her journey with the IDBM program. Let's dive into a conversation, rich with foresight and inspiration.

Welcome, Elina Hiltunen.

**Elina:** Thank you very much. It's nice to be here.

**Irina:** Nice to have you. To start with, can you [00:01:00] tell a bit about yourself for introduction?

**Elina:** Well, yes, I am a futurist, as, as you were saying. So my task is to think about the future and, um, I am also an entrepreneur, so, so I have a company of my own. I have had it.

For maybe 18 years. And, um, I'm giving keynote lectures and then I'm writing books, and then I'm doing consulting and this and that, and like whatever the customer is paying me, not, not, of course, not everything the customer is

paying me, but pretty much so, so, um, yeah. My, my, uh, task is to think about the future.

**Irina:** And I just noticed that you did your second PhD.

**Elina:** Yes, yes. I just defended my second PhD and that was in the Natural and Defense University in uh, Finland. And the topic was something like, uh, how to use science fiction, um, to anticipate the future [00:02:00] of war.

**Irina:** Ooh, that's quite topical at the moment.

**Elina:** Of course, it's, yeah.

Yeah. And when I started it, it was like my first exam at the National Defense University. It was at the same day. Uh, then, uh, Russia attacked Ukraine, so that was like, Very sad day

**Irina:** Yeah, of course. Uh, what kind of feedback have you gotten from your PhD?

**Elina:** Well, I think that. People think it's quite weird topic, but that's actually what I've been doing many times.

I've been researching weird things, and that was like my first PhD thesis also, because that was about weak signals. And weak signals are weird things that are happening now, and they could tell something about the future. So also at that time when I started to do my first PhD thesis, that was something that people didn't, uh, study that much. And I had to explain all the time as happened to [00:03:00] me with my second PhD thesis that I have had to explain a little bit that why should we use and why should, why should we think about science fiction when thinking about the, uh, future of war and how to, how to be prepared for the future of war.

**Irina:** Hmm. But do you have them some ideas, uh, from a previous science fiction that, what has worked?

**Elina:** Yeah. Well, actually pretty much everything, every technological item that we have here today is, is something that have already existed in science fiction. So. And, and, uh, in my study I actually read through some science fiction reports of different armies.

So, for example, US Army has done some science fiction, uh, and actually many, they, they have different kind me, um, what's this Marine and, and, uh, different kind of like army. Um. Parts [00:04:00] and, and they have done their own science fiction. And then for example, nato, uh, has, has done some science fiction. Last year they had like three reports that were like, you could classify them as science fiction.

It was nato Defense College that. Uh, and, and I was studying those. And then also I did some tools. How could, for example, Finn Defense forces, uh, make these kind of like science fiction scenarios for the future and be prepared for them. And so that, that was my, uh, in, in, in nutshell. And also I was thinking about the time and the war and different dimensions of the time in, in the war.

**Irina:** Okay. That sounds really interesting. We'll go a bit later in the week signals.

**Elina:** Yes.

**Irina:** Uh, but this whole area of science fiction is also really interesting. So you're not afraid to dive into areas which are a bit unknown

**Elina:** to you. No, no. I just love it. I, I just love it when it's. The weirder it is, [00:05:00] the more interesting I'm in it.

**Irina:** Okay. Maybe that's why you have also taken the IDBM program.

**Elina:** Yeah, yeah, yeah, yeah, of course. Yeah.

**Irina:** In 1995. So you have been part of the first year.

**Elina:** Yes.

**Irina:** Yeah, of course. Uh, what has IDBM meant to you?

**Elina:** Well, actually, I, I think that it was something that, that, um. It, it was very important thing for me because, uh, when I graduated I wa I was about to graduate from Helsinki University of Technology and in chemistry, and then I was thinking that maybe this isn't something that I want to do when I'm, uh, growing up.

And, and then I noticed that there is this new IDBM program and I was like, this sounds. Fantastic. It's, it's combining the business, it's combining design and it's, it's combining technology and I'm quite creative person. Uh, so, so I was thinking that this is something that I need to go and I went there and of course it started my new [00:06:00] career because, uh, I was the first IDBM assistant also.

So, so, um. Uh, and then when I started doing, uh, my, my IDBM assistant work at, uh, Helsinki Business School, then my boss came to me and said, that's because it was like only short term, um, um, employment, um, agreement. And then my boss came to me that, okay, the professor said that you have two options. You either start to do your PhD thesis or then you are fired.

And I was like, Hmm, now it's bad economic times and no, no jobs available anywhere. Which, which will I take? And then I started to do my PhD. So that that's, that was my high motivation to start to do my PhD. But anyway, uh, in the IDBM program, I first get. Familiar with the term scenarios and futures thinking.

So that was like, for me, whe when I, I, I just fell in love in, in like [00:07:00] scenario thinking and then I started to think that how could I, uh, learn about this more? And, and then that's actually started my career as a futurist.

**Irina:** Okay. And how did you find your, the topic for your PhD?

**Elina:** Well, uh, actually, um, then when I started to learn about these scenarios and, and there was this like, uh, futures thinking courses, um, uh, Finnish Futures Research Center started to do some, some, uh, courses and I took some of them and then, then in one course they were. Saying this like term weak sin. And I was like, this is something, it was love at love at the first sight.

And, and uh, then I was like deciding that this is my topic that I want to do, uh, my, my thesis. And of course it was, uh, wasn't very easy because that wasn't something that people were. Talking about that, uh, at that time, and especially when I was in Helsinki Business School doing [00:08:00] my, uh, doctoral thesis, I, I think that people didn't quite understand what is this like future thinking and weak signals as It's, uh, very nice that nowadays there's no problem that if you say something like weak signals people.

Really understand it and, and why the anticipating the future is very important. So this, I think, has changed very much and which is very good.

**Irina:** Back in 1995, uh, did you already have an idea where you would be in the future?

**Elina:** no, not at all. I, I knew that well, well, I, uh, that something that I definitely didn't want to do is, is the work of, of chemist, and, and Ty was a chemist, so I realized that I have to do something. I, I have to maybe study a little bit more.

I was doing my master thesis at Neste then and, uh, it was about, [00:09:00] about polymer science and I was in the factory environment and, and, uh, big machines. And loud machines. And I had this like, like awful workers suit on. And, and I was thinking that, okay. Now I know this is something that I do not want to do when I grow up and, and then this was actually a very good opportunity for me when I then read about that they are starting this IDBM program.

I was like, yes. And one of the things. Uh, I, I had applied, uh, but uh, with no success to, um, university of Arts. So, so I, I wanted to study, I, I think it was photography that I, and then ceramics, but I didn't, uh, manage to get in. And uh, and uh, then when I noticed that, okay, now there's a possibility that I could call to University of Arts and to study there, I wasn't [00:10:00] interested at all at Helsinki Business School.

I was like, okay, that's a compulsory for me. I do it anyway, but. And now I'm a, um, a doctor of economics. Yeah, yeah, yeah. It was quite nice later on when I realized that what they're doing there, but at that time I was like, yeah, this is my way, sneaky way to study at University of Arts.

**Irina:** So you're a little bit like a Renaissance person.

You can approach different disciplines and and also combine.

**Elina:** Yeah. Yeah. And actually this is very good when you are futurist because I think that you need to have this kind of like renaissance person in that, sorry, I have this formula for the future, which is like how to anticipate the future. Mm. It's like, look, you are looking at the facts and then you add the imagination.

So anticipating the future equals facts plus imagination. And this is something that you [00:11:00] need to have this renaissance person because you need to know the facts. So, and, and this is maybe something that it's, it's in my DNA,

so I, I am very interested about what is happening in the world, and I'm reading very much and, and, uh, I'm gathering information from all over the.

Uh, different things, but then, uh, that's only the facts are leading you to the present. They're telling about the history, they are telling about the present. But if you need to see the future, you have to use your imagination. So, so this is, I think that if you think about the IDBM, it, it is something that it's combining the facts and it's combining the imagination.

Think that that is something that, that these, these skills are something that you need when you think about the future.

**Irina:** Mm. I think this is now a good time then to ask that how, how to predict the future. You said that then it's facts and imagination. Uh, it sounds, uh, easy, [00:12:00] but obviously.

**Elina:** Yeah, it's not, and and, uh, the one thing that futurist, we futurist are always saying that you cannot predict the future.

So this is something, uh, this is the, this is how we save our backs. But the idea, uh, with the futures is that, that you actually realize that you can predict the future. You can predict correctly. And, and if you. Can't even predict it correctly. You can't know beforehand that it was a correct prediction. So the idea with the futures is really to think about different kind of futures.

So, so many futures. So you have to be prepared of different kind of futures because you never know.

**Irina:** Mm.

**Elina:** And that's the idea. You, you never know. You can not, nobody knows what is happening in the future. So you have to think about, uh, what if there would be a future, a future B, future C, future D. So, uh, what would I do, do, uh, do I like the future a better than [00:13:00] future D for example.

And if I like, what should I do now? Uh, that we should, we would go to the future A. If, for example, future D is something that we are very scared of, how would we, uh, we prepare ourself if something like future D is happening? And, uh, how, uh, would we try to, um, make the future d not to happen? So. So this is the idea.

So, uh, it's not predicting, but it's thinking about different possibilities and then how to choose the right facts

**Irina:** Then how to find the right facts to utilize?

**Elina:** Well, well, uh, don't go to social media and look at the feedback that we will have, the quotes and whatever comment, comment section.

You can't find the facts there, but, uh, the facts are something that. For example, when I made my newest book and, uh, it's about full of facts. Uh, and, uh, [00:14:00] there are institutes like United Nations World, um, health Organization, IPCC, um, in Finland, which is like Statistics Center in, in Finland. And, uh, and then, uh, scientific articles and, and this is something that you can.

Find the facts. So, so, and that is very important when you think about the future, it's, it's to go to the real information sources. It's not that what. People are saying or thinking about the future, always look at the real facts. So you have to have little bit like scientist in yourself when you are looking at the future and looking at the facts.

Uh, when you're doing a scientific work, you know that there are some sources that you can trust and some sources that you would never. Trust and, and like refrigerator magnet as, as one of the one person used as a source for his, uh, PhD thesis. But, [00:15:00] but anyway, this is something that.

**Irina:** no magnets.

**Elina:** No magnets or no social media media comment section.

There it's not reliable information that you can find there. Uh, go to the real sources and real facts. So this is the idea there.

**Irina:** So do you do all the time this kind of background research?

**Elina:** Well, yeah. And, and this is actually something. I have to do because I'm a futurist and then I'm, I'm, when I'm doing the research, I'm also writing books.

Mm-hmm. Because this is like, like my notes.

**Irina:** right. So you, when you take notes, you write books. Yeah. Yeah. And other people take notes. Yeah.

**Elina:** Yeah.

**Irina:** This is, yeah. I might not be making a book out of the

**Elina:** Yeah. Yeah. I, I, I always, this. It's, it's maybe a little bit nasty to say that writing a book is, is something, uh, process for me.

Uh, and, and, uh, finding new information and, and [00:16:00] somehow sorting the information in the right way. And, and I'm very happy if somebody else also likes to read my books and, and find. Information there. Of course, I think about that's how it's simple, simplified this information, how can like more, uh, wider audience can read this information.

Um, but, but primarily I'm, I'm doing it for me.

**Irina:** Okay.

**Elina:** Learning more.

**Irina:** Can you, can you tell a little bit about your latest book?

**Elina:** Yes. My latest book was a little bit different that I've been writing before. It was my 15th book and um, I have been writing, this may be seventh. Seventh, uh, book about future, a future related book.

And, um, that was a picture book for adults. Mm-hmm. And, um, it, uh, the idea came from the, well, what is happening in the world. People, people want to have the information very quickly and, and maybe in visual form. [00:17:00] And that's why I made a book that is like full of infographics of what, what is happening in the world.

And, um. It has maybe 200 hundred 50 pages of in infographics, and then it has like 35 pages of, um, references. So, so it's, even though it's a picture book, I have made a lot of research for that book and, and it's telling about the mega trends of the fu what is happening. And it's talking about climate change, ecological crisis.

It's talking about, um, increase of population, uh, demographic change, um, globe globalization, urbanization, increase of wealth and consumption, increase of inequality, uh, digitalization and technological change. So these are the 10 mega trends I'm talking about. And then I have these. Uh, fact points about what is happening if we are talking about, for example, increase of [00:18:00] population.

So, uh, what are the United Nations estimates that, uh, how, how many people? We have till year 2100 and it's about 10.2 billion people that we are having. Yeah. Yeah. And they have different kind of scenarios. So this is the, the median scenario that they have, and then where the population is growing because it's growing in Africa and uh, not in other continent.

It's, it's the Africa is the future continent. When we think about the, um, amount of population. And then, for example, if we think about the global, uh, power shift, it's, it's going to be in, in, in China, in in pricks countries. So they are definitely having the global power, power in the future. And, and of course, Trump is doing his best to decrease the power of USA.

So. So I, I think that the East is definitely going to be the global power [00:19:00] power center in the future.

**Irina:** You were talking already about weak signals, so yeah. That has started your career as a futurist. Yeah. So the weak signals are your kind of love, uh, baby.

**Elina:** Yeah. Yeah. They are. They are still a weak, and even though I, I did my first PhD thesis, I think it was, um, 2010. Yeah. Yeah. I think it was at that time, uh, I graduated, uh, or, or defended my thesis that time.

And, uh, that was a long process. Okay. Yeah, because I, I first started it and, and then I, I did my, some studies and then I had my two babies and I stayed at home for four years taking care of my two babies. That was maybe the best time of my life. Uh, and, and, um. Then I went back to university and [00:20:00] restarted my thesis.

So I have to actually restart it to do it and start it again. Uh, but anyway, uh, it, uh, I, I have always the little bad habit that when I start to talk about something, for example, science fiction or weak signals or wild cards, I always have to define them. To myself, what I'm meaning by saying that weak signal, you know, what are the weak signals?

So these were like, I, I had, um. Three articles in my, my thesis about what is a weak signal, and then I have some ideas. Uh, for example, one tool, how to utilize weak signals in an organization. The, the name was um, uh, something like using weak signals in organizational of futures learning. So this was something that I have this futures window tool.

So, so how could, uh, we use this visual VIX in our organization? Uh, there was one or two [00:21:00] organizations that really used this tool later on that I have heard, uh, and, but. That's already, you know, time has passed that tool. So

**Irina:** yeah, I remember that you had this list of, of, uh, things to look into when, when searching for weak signals, and one was that if your coworkers laugh at it.

**Elina:** Yeah, yeah. I, I had this like weak signals test.

**Irina:** Right.

**Elina:** And, and the idea was there that. How would you recognize what is a weak signal. And actually this started this test, uh, from one, um, article that I was reading. And there were the big like CEO of a big company saying that, yeah, we are looking at the weak signals and one weak signal now is globalization.

And I was like. Come on, that's a mega trend. And then I was like thinking that, how would you like, like define the weak signal in a way that everybody would understand. And then I was saying that it, it has some characteristics. So if you spot [00:22:00] something that you think that is a weak signal, test from your colleagues in the, in the coffee table some, and I look at their reactions.

So first tell the weak signal and if they start to. Laugh, uh, about it. If they start to wonder, what is this? I never heard. Or if they, they say something like, well, this will never be big in the future. Or they say that, okay, this is taboo. Don't talk about this. So this is an, uh, examples of reactions that it might be a weak signal.

And, and this was something that when I was working with my customers, I always say that it's, it's, this is not complex issue at all. So this is very simple, but you have to try to find very weird stuff that are happening now. And, and the idea is that collect these weird stuff and, and if you have enough mass, you, you could see that there's some trend, trend emerging there.

Behind and that is how you see the future. So, uh, and then I was also, [00:23:00] uh, working with one company, data Rangers and, and we made this, uh, tool for collecting weak signals in organization. And that tool was used in certain organizations in Finland, for example, decades at that time. And, and FinPro. And then I went to work FinPro for some time, and I also worked at Nokia.

But I have, have this little bit problem that I, I have problem with the authorities and, uh, so, so I'm very much this, um, creative type and, and that's why the only way for me is, is to work as an entrepreneur.

**Irina:** right

**Elina:** Yeah. Because I don't like rules. And of course there are certain rules that you have to obey, but then there are too much bureaucracy.

And, and I, when I was working big organization, they're too slow for me. Right. I get bored, you know? And so that's why I have to be, [00:24:00] I'm writing books and, and, uh, speaking, uh, having keynote speeches and, and.

**Irina:** Mm.

**Elina:** Do my own little project here and there.

**Irina:** Yeah. Right. Uh, are there some interesting, weak signals that you can now see around us?

**Elina:** Yes. And, and, um, there are all the time interesting, weak signals. And I have actually couple of, um, like channels that I'm collecting, weak signals. One is, uh, in my, um, Facebook, I have a, a closed group that we are collecting weak signals there and, uh, but weak signals are problematic in the sense that you just tend to forget them.

But, but, uh, well, one of the weak signals now that come to my mind now from, from the, uh, Facebook group is, is that, um, ule, uh, text tv, you know, the old fashioned text tv, right? They are having one page that is [00:25:00] yellow. And have one dot there. And that is, uh, uh, like, like, um, light for the dark times.

**Irina:** Hmm.

**Elina:** Here. And then there was, I, I think it was it in, um, they're having this, uh, like Tinder type date dating event in museums. So that was one weak signal seen in all land. So as, as you can see that these are. Small, I would say small and weird data points that are happening now. They are actually something that are real.

They are happening now. They are not something from my imagination, but they're real, uh, really happening now. And now I'm working in, in, uh, one company and in the board. And, uh, when. Ever. We are having these board meetings. We are having like 15 minutes that we are talking about this weak signal, the weird, weird stuff.

And the idea is that could be utilized in, in, um, in the [00:26:00] organization's work this weak signal and, and they are like, uh, something that are. Inspiring for our imagination to think about the, the, uh, company's new products, for example. So we have had quite many good ideas from this weak signal. So, so this is one, uh, example that this we, weird or weak signals are something that could be used in the real life, uh, company work and even in the board, uh, meetings and, and, uh, in the, in the higher level management work.

**Irina:** Now looking back, for example, 10 years ago, or I don't know, five, 10 years ago, when you spotted some weak signals in now that you can already now see as a main trend.

**Elina:** Yeah.

**Irina:** Is there something like that?

**Elina:** Yeah. Uh. Yes, there. Of course there are. Because when we think about different kind of like stuff that we have now, for example, social media, we have, uh, I'm [00:27:00] that's old that, uh, I have been living in the times that we didn't have mobile phones.

Yeah. Uh, so, so there. They were the first weak signals, the first mobile phones that everybody was like laughing at the time because they were clumsy and expensive and there were some, some yuppie stuff there. Um, but now they are like everywhere. We couldn't. Live without them anymore. Our lives are in, in the mobile phones, our banking accounts, our social media, our contact information.

So this is an example that, that and, and when it comes, for example, cars and computers and, and, um. These are technological, but then we have, um, also

social weak signals. One, one of the weak signal, one of the stuff that changed that have happened in Finland, uh, is for example, that people don't get married but they live together and may in, for example, 1950s that was a [00:28:00] definitely a big scene.

At that time, but then it's like more and more people started to do that. So now it's like self-evident that people are probably not married when they're moving together. And uh, but when I think about my past and, and, uh, weak signal in, as I remember one of the weak signal in and that time I was, uh, of course many of the weak signal, you know, but this is something that I remember because I was working at that at that time, um, uh, in IDBM program and then.

We went to Munich and there was this, uh, Nissan design studio and a man called Mikio Fujito. And, and he was the big designer at, at, um, the chief designer at Nissan. And he showed us the Nissan studio. And, and he was also driving his own Nissan car, uh, at Munich.

And he had this new weird device, what was called a navigator. [00:29:00] Yeah. And I remember I was a little bit teasing Mikio because there was a female sound saying, now, now turn right now turn left. And that I was a little bit teasing. Okay, you have a like artificial woman there telling turn, do this and do that and do that.

And uh, I remember I was thinking that okay, maybe in the big cities like Munich you would need such a stupid device, but in. Finland, small cities, and you would never use that. And how wrong was I? Yeah. And, uh, this is, I, I think a typical example of weak signal in that you start to a little bit like laugh and, and no, this could never happen.

I remember my husband when he was, uh, working at no, uh, Nokia. And once he was saying that in the future we, in all mobile phones, we will have cameras and I will, I was like, how [00:30:00] stupid is that? And, and this is very typical when, when you think a little bit like putting down some ideas, you might go to yourself that this happen in the future.

Anyway, so, so this is, I, I think very good. Very good, um, teaching for myself that never underestimate these new things, but one thing about weak signal is also to understand that not all the weak signals are going to be, uh, are indicating of bigger trends in the future. And, and that is why. When collecting these weak signals, it, it's not about a single weak signal, it's about that you get, um, many of these weak signals and, and they are starting to indicate, so it it's about the masses of weak signals there.

**Irina:** you have to find a lot.

**Elina:** Yeah, you have to find a lot. And that was actually my idea is it's like, uh, in organization, you, you should actually crowdsource collect the [00:31:00] weak signals.

And that was what we were doing on FinPro. And then there were people. Um, in the Foresight team, I was part of the team that we were like clustering these weak signal in us and, and we're thinking that if these could be some bigger trends in the future

**Irina:** A question that most likely is something that you have a opinion on. How do you see the AI changing the way that we are living, changing our working ways of working? How, how do you see this?

**Elina:** Well, uh, to start, uh, we are living in the AI hype or. Bubble now. Right. And, and, uh, it's, it's okay. Uh, I think it's a, uh, amazing thing.

What has happened with the AI, like since, um, launch of, uh, Chat GPD. Of course the [00:32:00] change has been big. It was either end of the year 22 that it was launched, but already in 1950s, uh, people started to talk about, uh, artificial intelligence, right? And, and there have been like artificial intelligence Summers, which is like hot, hot, hot and everybody's in investing in and, uh, studying that. And then, uh, we have had these artificial intelligence winters. This is also one thing that I have in my book. I have the timeline of, of development, of artificial intelligence. So, uh, anyway, we have had artificial intelligence, uh, and use that, uh, for example, spam filters and, and, um, recommendations in internet and, and whatever.

So it's already there. But now what is, uh, something, um, interesting is this generative artificial intelligence. Uh, so large language models like this, that GPD and, [00:33:00] and how they generative artificial intelligence is, is like, uh, generating pictures, videos, whatever. Uh, and then the next thing is, uh, artificial intelligence agents that we are going to use and definitely that is going to change the way.

We work, and it has already changed a lot. And, and, uh, in my personal work, I have realized already how much it has changed. The tools are so effective. Definitely they are going to replace some chops in the future. Uh, but again, I, I think that we, we will need people in the future. Uh, and, and, uh, but the idea is that.

If you're working, for example, in what I would call white collar, uh, worker. So you have the blue collar worker, white collar worker, so, uh, in an expert field. So you really have to get to know these different tools and use these tools because then [00:34:00] it's, it's a competition in the future that the people who are using are people who, uh, aren't using, and, and that's quite clear that who are the ones that are going to win the workplaces?

So anyway, my, uh, idea is that, um, get to get to learn these different kind of tools and utilize them, but, but don't, um, don't outsource your thinking to artificial intelligence. There are. Many challenges when it comes to artificial intelligence, and, and I think that people should be aware, for example, they consume energy, they consume water, uh, and, and they create more, uh, electric waste because we have to use different tools for that.

Uh, and then there's always questions that, that who is using the information and, and, uh, how are the models. Trained because they are as good as the material that is used to train them. [00:35:00] There could be biases. And, um, then, uh, it's, it's a. Black, black box. We don't know how it's making the decisions.

**Irina:** Yeah. How do you see that AI is impacting the creative businesses?

**Elina:** Yeah, I, I think it's definitely impacting the creative. It, it's like you can make, uh, music, you can make, uh, pictures, you can make videos. Definitely, I, I would be lying if I would say that, that no, it's not going to affect, definitely it's affecting and, and, uh, if you do some Google search about images, you can see that already many of the images are done by artificial intelligence.

So. Definitely it's, it's going to affect and, uh, sometimes people are saying that, okay, or the, or the creative things, this is something that a machine can't do. But I, I disagree with that. I, I think being creative is like combining two things together that haven't been [00:36:00] combined before. And, uh, why would that be something that only a human being can do?

It's, it's like something that machine could do and. I've been using, for example, artificial intelligence, uh, tools. Uh, when I've been creating these, uh, scenarios for future of war, I, I actually made one tool, um, that made. Makes the frames for science fiction stories and it has like seven cards. It's, it's like, uh, run, uh, picking randomly these seven cards.

And, and then I give that seven cards to, um, for example, Google Ganey and saying that like, make a. Story of future of war. When you have these like

frames for futures, who is the enemy? What is the target and what is the technology? These are examples of the cards. It's making the car, uh, it's making the stories.

And, and then the next thing I'm putting these [00:37:00] to, uh, Google a notebook lm and saying that, make a, make a video of this story, of this story. And then. Like, come on. Uh, I get it in, in, in some minutes.

**Irina:** Mm.

**Elina:** And this is, I think, quite creative work that artificial intelligence is doing. And, and of it, it's, it's scary.

**Irina:** Mm.

**Elina:** Because sometimes thinking that where would we need the people? And, and one example is we are having this podcast here and with Google notebook lm, you can do this podcast.

**Irina:** Yeah.

**Elina:** So, so I just, I, I tested that with pushing my, uh, one, um. One, um, column that was talking about, uh, weaponizing cars and I put it there and it was a one page column, so quite short column and, and, uh, the, uh, machine artificial intelligence [00:38:00] made 12 minutes podcast talking about there were two people, uh, male and female talking about this, uh, column and, and then.

One spec, special feature was that they were, well, they were talking, uh, in Finnish and they were saying like, uh, like these things that people are saying, ah,

**Irina:** ah, okay.

**Elina:** Yeah, yeah. Like, like, uh, on something like people are saying these small words that are meaning nothing, but they are like buying time for, from their thinking.

Right? And, and so I, I was thinking that if artificial intelligence. Is doing that. So where do we need the humans? Maybe

**Irina:** we now need to do a test that I will, uh, put all these questions for AI and say that make a podcast.

**Elina:** Yeah, yeah,

**Irina:** yeah. Outta this and let's see that. What, what comes out?

**Elina:** Yeah, yeah, yeah.

It's, it's, it's amazing. I, I was so surprised. What, what can I do [00:39:00] now? And then when. As a futurist, I'm already, I'm also always thinking that we are here now that, what is it, in 10 years or 20 years? It, it's a big question. So there are. Uh, these topic scenarios about how could artificial intelligence lead us to different directions?

And these should be considered too, uh, uh, because when we consider we can. Try to make this, that, okay, let's do something that we won't go there. And, uh, it's in a way funny that, uh, European Union is considered somehow slow and, and try to have these standards and limitations and clause for artificial intelligence.

And all the US and China, they are going there and they are fast and, and, uh, a child and something. But I think now it's very important. To think about these laws and [00:40:00] limitations because in the future, artificial intelligence can do many things and, and many of those are something that, some things that we don't really want to see.

**Irina:** So you feel that then the regulation is good to have now as the basis?

**Elina:** Definitely, definitely. And, and for example, the regulation. Where can, what kind of information can we use from Europeans? Because we are actually getting all the information. We, the digital footprint is already amazing what we have from all of us.

How can we use that? And in the future we have more, for example, this, uh, bio information. How, how, for example, I have this. What's in my hand, which is this smart Watson, and they are collecting all the data. And when we are using this data and, and we can, we can more predict what we are doing and how we are thinking and that's scary.

And, and if we think, for example, how these different big companies can utilize this information, [00:41:00] it's, it's very scary. Or how if we would live in the

country with a dictatorship, how would this information be used? And, and these are very scary scenario. So we have to be also always prepared for also this and, uh, try to prevent this to happen.

**Irina:** Right now looking also, I was asking this a little bit beforehand as well, like, like looking back, like, okay, looking back to the previous Trump, uh, era.

**Elina:** Yeah.

**Irina:** Could you already see that there will be a second Trump era coming?

**Elina:** Uh, well, I, I don't have ability to predict. No. Yeah, yeah. I would say that I don't have ability to pre predict that was, is, but, but I have, uh, scenarios and of course I was thinking about the good scenario and in that good scenario, there wasn't any Trump right.

In power. Uh, but you have to be prepared also for the bad scenario. There was a [00:42:00] Trump in power. And I, I have to say that one of my, um, us um, uh, futurist friend was asking, uh, for some scenarios about the what is happening in this Trump administration, uh, next four years. And I had two scenarios there. I, I sent it to them and they were a little bit saying like, come on, what are you thinking about?

And. Unfortunately, one of those scenarios are almost already happening there. And, and it was something I was talking about, uh, um, um, US and Russia forming a coalition and there was actually North Korea also part of that. But, but that something I'm, I'm, that's awful to see what's happening now.

**Irina:** Right. So then you have to be prepared also

**Elina:** for the, you have to be prepared

**Irina:** for the negative, uh, impact.

**Elina:** And maybe the thing when I'm studying or I studied at, uh, national Defense University, that that is something that it's [00:43:00] negative future that you are focused there on. So that's my, my. Excuse for why I'm sometimes thinking about more of these, these topics, scenarios. The idea, uh, why to think about these awful, nasty scenarios is that you could prevent them from happening and be prepared for them.

So that's the idea why you should also think about these negative scenarios,

**Irina:** right. So then maybe your advice for companies is actually to also focus on the. Possible negative scenarios.

**Elina:** Yes. Yes. Because, because if they would happen, they would hit you harder maybe than the positive scenarios usually.

So, uh, you can, you can try to, uh, avoid the negative scenarios and, uh, try to create the positive scenarios. So the one example of the negative scenario, uh, with positive, uh, like training for negative scenario is fire [00:44:00] trails,

**Irina:** right

**Elina:** They are something that, of course, nobody wants that to happen. But if that negative scenario which happened, we would survive with, uh, smaller, um, Casualties..

**Irina:** Mm-hmm.

**Elina:** Smaller damages.

**Irina:** Mm. Exactly. what advice would you give them to creatives or entrepreneurs that are now looking to navigate the future, which seems a little bit, uh, hazy.

**Elina:** Yeah. Well, uh, one thing is that future is always hazy.

**Irina:** Yeah.

**Elina:** That's, yeah. Yeah. Uh, but, uh, one thing that I, in, in my opinion and in my career, what has been very good.

Thing for me is that that, um. Somehow train and educate yourself at the all the time. So, so, uh, when you are, for example, at the university, your, [00:45:00] uh, education doesn't work when you get the papers in your hands. So be prepared for different kind of futures and, and it, that is something that you, I would say that one of the teaching when I was in big organizations was that I was only one small part of the machine and I could be thrown away. Mm-hmm.

And then that's why I always emphasize that I have to train myself and teach myself in the way that wherever I would be, it's, it's, it's me and my, my skills,

what I want did not, not the thing that I'm working in some organization. So this was something for me that was very important.

So. Always learn and learn more more and, and be curious about what is happening now and in the future. And so I, I think that that would be my advice to young people.

**Irina:** Hmm. [00:46:00] So to create a certain skillset that is also needed.

**Elina:** Yeah. Yeah. And, and, uh, these skills, and you have to, um, update it all the time. So updating your skills is very important.

**Irina:** Right.

**Elina:** And in a way, I, I think it's, I hate the word like branding yourself, but, but somehow, like branding your skills would be maybe the right word to use.

**Irina:** Branding your skills. What does it actually mean?

**Elina:** It, it means that you have your skills, but you alway uh, also communicate about your skills, what you can do if you have many skills, but nobody knows about them.

So yeah, so what to do with them. So, so you have to, in a way, you have this little bit, little advertiser in yourself also. To to tell part that you, well, [00:47:00] I have these skills. I'm updating all the time, my skills, and then also like communicating to people that I have these skills.

**Irina:** It sounds simple, but maybe in reality it's not so simple for people to actually do that.

**Elina:** Yeah. As an entrepreneur you have to do that all the time, so, so maybe it having a little, even though you are working big companies or some companies always having a little small inner entrepreneur yourself and, and this might be also, also good teaching.

**Irina:** Yeah. Okay. Last question. Uh. You can answer this or you don't need to answer this, but, but if, if you can, how do you see the future of the IDBM program?

**Elina:** I think this is, uh, uh, for me, IDBM was, was very good spark and uh, and now, um, we have this class meeting for chemistry students, [00:48:00] uh, a couple of weeks ago. Uh, and, uh, I was sitting there next to one of my like, uh, colleagues and, and we are now in our like, uh, fifties. Uh, and uh, she was telling me that his son is studying now in this program called IDBM and I was so happy about it. This is the next generation, so, uh, I think this is very, very good thing. And, um, it's, it's. Very important, uh, as I was saying, having a little bit this renaissance skills. So, so you have understanding of technology, you have understanding of business and design, and one thing that I've seen that, what is the biggest change in IDBM, uh, in my, um, looking from with my eyes is the.

International is now available because when we started it wasn't that [00:49:00] international at all. Sure. But now, now I've been understanding that it is very international and this, I think it's also very important. And when we think about the future innovation, we really need different kind of people there. So, so having these people with little bit like technology, more like technology focused, more like business focused and, and, uh, design focused, and then, then using all the, these people there, I, I think it's very good for innovation.

Yeah, so I see very good future for IDBM.

**Irina:** Excellent. Uh, thank you Elina. Thank you so much. Do you have anything that you want to add still? Something that kind of we haven't touched upon?

**Elina:** Well, maybe one of the things that I want to add, and this is because I'm a middle aged woman, and, and little bit, I, I would call myself an angry woman and little bit like looking at, at the world from different perspective.

Always remember the moral. [00:50:00] When you're doing things, trying to do the right things, not the things that you are getting money, but trying to do the right things at. Now, I, I think these moral issues should be more discussed. What is the right thing to do and right thing for other people? Right thing for animals, right thing for the environment.

So I, I think that this. Moral discussions would be needed more. I, I hope it's included also in the IDBM program because to be honest, the world has big challenges when it comes to climate change, ecological crisis in equality and so on. So I think that we would need these. These, uh, new generations of people who are thinking really, uh, how to, not how to make the profits, but how to make [00:51:00] things right.

**Irina:** And I think that we can't leave the moral discussion to ai.

**Elina:** Yeah, definitely not.

**Irina:** Okay. Thank you Elina.

**Elina:** Thank you very much.

**Irina:** Thank you for listening. I am your host Irina Viippola. This episode was edited by me and Aditya Parekh, and produced by the IDBM program at Aalto University.