Tove Staaf - **00:08**

Just a moment.

Stefan Debois - **00:10**

Anyways, we have the note taker here.

Tove Staaf - **00:13**

Yes, note taker. And our guests are also here. Do you manage to connect to the Internet or. So do it in English because.

Stefan Debois - **00:32**

But you can do it in Dutch. I will treat it as a Dutch.

Stefan Debois - **00:36**

English is perfect.

Tove Staaf - **00:38**

Oh, don't let me ruin it for you guys.

Stefan Debois - **00:43**

Yeah, it's.

Tove Staaf - **01:55**

I'm also starting recording.

Stefan Debois - **02:23**

So we speak English.

Tove Staaf - **02:25**

Dutch, English.

Stefan Debois - **02:41**

All right.

Tove Staaf - **02:51**

Okay. Maybe just introduction. Can you hear me well?

Stefan Debois - **02:59**

Perfect.

Tove Staaf - **03:01**

Okay. Because the Jabra is not working inside my computer. But okay, so we have people from Robby, AI and Robbie is a company that we learned to know. I mean, I think the company that you're working for with Wonka already mentioned you guys also. And then I met you at the event a couple of weeks ago. So we started talking about. About different things, but also about your product. So that's basically AI for data analytics. But you will be able to explain it more in detail and better than myself. But it's in that context that we have invited them. So we at point of Pro are looking to enable AI for the data that our customer. Customers collect with our assessments. So we now have the normal dashboards. We have also dashboard builder for which we use Luzmo, the form of commodity IO. Yeah.

Tove Staaf - **04:16**

So that allows our customers to create their own dashboards. In addition to that, we see that a lot of customers are not that. Yeah. To create your own dashboards, you need not to be a developer, but you have to have a real good understanding of the underlying data structure. People don't have that capability. So a kind of chatbot that you can use to inquiry the data for simple and maybe also not so simple questions would be very useful. And that's also on the planning of our roadmap for this year.

Stefan Debois - **04:59**

Okay, amazing.

Tove Staaf - **05:12**

So we have. So we have Torvay, our new product manager, and Bruno, our solution architect who is also doing AI within the products like the MVPs and playing around and testing with new technologies to incorporate or not, I mean, in our products. So that's a bit the reason why we have invited them. So the goal for today is that you give like a demo that we have a clear understanding of what your product is capable of in the context of our requirements. Okay, so Tove and we know do you have to add something to that? I mean, we are very excited to.

Stefan Debois - **06:06**

Have an internal AI solution.

Tove Staaf - **06:08**

So I am very excited to see.

Stefan Debois - **06:10**

What you're going to show to us.

Bruno Pauwels - **06:13**

Right.

Stefan Debois - **06:15**

Okay. I will also introduce myself. I'm Amra. I'm the co founder and CEO of Wobi were founded in 2023 which is almost exactly two years ago. My background a little bit. I used to be a data journalist at broadcasting and it's actually there the idea was first started I wanted a tool with which I can easily analyze complex data and make news stories about it. But this idea grew and we saw that the use cases were much more broader. And so in the last two years were obsessed about pretty much one problem like how can we make data analytics AI accurate, reliable and consistent.

Stefan Debois - **07:15**

And as you probably know, it's very easy to make text to SQL proof of concept and it looks great in demos but actually in production, especially for non technical users who have no background in data analytics, who just needs the answer, not do the whole analysis but just like they're looking for just a simple answer to a simple question. We saw that none of the solutions on the market is working. You know, if you look at benchmarks, sometimes, you know, text to SQL 75% of the times they're accurate. Which means one one out of four questions are answered incorrectly. So we are laser focused to solve this problem. How can we make it make text to SQL as accurate as possible?

Stefan Debois - **08:13**

But the second layer is how can we make sure that the end user, which is a business non technical user, can reliably get 100% accurate insights? That's what we're focusing on.

Stefan Debois - **08:30**

My name is Sebastian, also co founder of Huobi. I'm responsible for the entire commercial side of Huobi. Fifteen years in this data and AI space, building a lot of traditional dashboards in the past at different customers across different industries. But as Amra said, dashboards are very static. Business users access this dashboard, they see specific trends and they have a kind of follow up question that they have to reach out to the data team or to a more ID profile to get a response to that question. And that's why I joined AM team to really make sure that if business user would like to ask a question at the same time, get that answer, of course, with control of the data team. So that's what we're doing these days.

Stefan Debois - **09:27**

Yes, and I think before we type into demo or something visit. Our goal of today is not hey, we have something to sell, buy it, but understand what is a core problem that you are trying to solve. So in broad sense I understood users make, you know, they do, they collect data through your platform and you're using Lutemo as well, which we, I mean they're friends of Us, we met with them just last week. They have an amazing product for dashboarding. And so yeah, what is the last missing piece that's for you would make a difference in what way?

Tove Staaf - **10:31**

I think in terms of. I mean there's of course many things that we still want to add to our products or we have a roadmap and maybe starting with what product doesn't. So we came historically we came from surveys. We started survey software primarily customer satisfaction surveys. As you are aware of, probably receive a lot of emails unopened, of course. So then we during that's already some time ago. But then we evolved towards assessments, which is both an evolution and evolution. I mean it's not so different. In 2019 we added reporter capability. That means that we have a report editor where you can create reports with conditional data. So the data is conditionally a function of what was answered in the questionnaire.

Tove Staaf - **11:42**

Have then typical use cases like maturity assessments, like cybersecurity maturity assessments to answer a couple of questions and get they left advice like you get maturity level three out of five and it says also how you can improve your maturity level. And these kind of things can be end to end configured in our system. Both the questionnaire, the logic that calculates score, which can be pretty complex, but still in no code. You don't need to have technical knowledge for that. And also the reports which can be built with the drag and drop editor, the content and also the design. So that's our main differentiation that we have the questionnaire and the report builder in one and the same platform. Otherwise you have to go to different platforms and kind of middleware in between to transfer the data, which is not that.

Tove Staaf - **12:36**

Which is a bit of a hassle. So then we primarily sell to professional service companies. So if you want to say two words. What we did with the surveys was data collection. What we do now with the assessments is advice automation. So we still collect data, but the data is used to give personalized advice. So advice automation. Then you end up with give advice as core business consulting professional services. For example Deloitte as a customer who does cyber security assessments. But we have also customers outside consulting. We have for example Nordisk, who does a diabetes assessment in our tool. So giving medical advice and using our tool. So it's all about advice automation. And we are really content agnostic. Whether it's diabetes or cybersecurity or something else, doesn't matter.

Tove Staaf - **13:36**

The customer puts his or her content in our tool and in that way for the highest objective for that customer is to really Digitize their service offering and thereby be able to grow their business faster than the headcount. I've been in Consulting for 15 years. We always had to recruit new people who wanted to go to business. But now thanks to DJ digitization and you. Yeah, if you digitize the advice part of it and then you can also grow faster than your headcount which is an appealing idea for those companies. That's a bit where we stand. We have a bit thousand customers over more than 50 countries. Lots more than 50% in the US also. And yeah we are growing pretty well. So so excited also to listen to our customers and to develop new functionalities.

Tove Staaf - **14:50**

So for this year on the roadmap is besides the AI is also more integrations with other tools. Native integrations. Native and no code self service. So that's the combination that we'll do it. And then also the UI rigs which a bit updated and we have built lots of functionalities. So the UI rigs is too difficult. So we are also going to work.

Stefan Debois - **15:18**

On this.

Tove Staaf - **15:22**

And next to that for AI. We have identified the data analytics via AI as a most important use case. Mainly because of it's the customer some our customers that benefit from it. The data is collected by the assessments. The assessments are taken by our customers. The data is presented also processed or analyzed by not our customers, but often the customers of our customers does a cybersecurity assessment at their customer and they can offer nice dashboards and with also AI channels to query the data. That's an advantage that they can then resell to their customers. So that's one of the reasons and why this is an important use case. But also like we say, often people are not so technical or not so data. Yeah, they don't know how all this ends up dashboards and how to make it. Therefore we think it's interesting.

Stefan Debois - **16:35**

The data.

Tove Staaf - **16:37**

Which is collected by our assessments to be able to. I mean to ask questions about I did and to have the answer both in text and also in graphical formats. But that's nice. Of course when you say I want to see the trends, the data and that it gives like a line chart or bar chart or something like that. Yeah, that's what we are looking at. And Bruno, if you want something to add to that. Yeah, I mean we collect a lot.

Stefan Debois - **17:15**

Of data as well on our how.

Bruno Pauwels - **17:18**

Customers use our platform.

Tove Staaf - **17:20**

But we're missing being able to extract.

Stefan Debois - **17:23**

Actionable trends and insights.

Tove Staaf - **17:25**

It's a challenge at the moment. So being able to identify patterns in customer behavior, see which feature are the.

Stefan Debois - **17:33**

Most least used to guide product decisions.

Tove Staaf - **17:37**

And also uncover pain points.

Stefan Debois - **17:38**

Analyzing our gong recordings because we have.

Tove Staaf - **17:41**

A gigantic gong library where I have met with a lot of customers but we can't really analyze them at the moment in a clear way. It's so much data and it's the same with trend analysis and predictable insights.

Stefan Debois - **17:55**

For not just product but for marketing.

Tove Staaf - **17:57**

Our support team which also comes to.

Stefan Debois - **18:01**

The customer service at the moment we have an amazing support team but we.

Tove Staaf - **18:05**

Would love to be able to help them more with. With AI. And yeah, I think those three things are the biggest pain points I see today.

Stefan Debois - **18:15**

The data, where is it stored? The kind of data warehouse. Because what I'm hearing is your customers like a deal. They have their customers. The data remains at the customer site or at the Lloyd or do you.

Tove Staaf - **18:28**

No, it's two different things. So we are using.

Stefan Debois - **18:30**

I guess I see that Bruno also nodded.

Tove Staaf - **18:33**

So let me interrupt if you wish.

Stefan Debois - **18:36**

But I think from my end it's.

Tove Staaf - **18:38**

Our customers data store in HubSpot and.

Stefan Debois - **18:42**

In Gong of course our Google Drive.

Tove Staaf - **18:45**

But it's in separate places. And then of course our customers, they.

Stefan Debois - **18:48**

Have their own admin view in the.

Tove Staaf - **18:50**

Tool Stefan introduced like their builders etc. So it's like AI for us and also AI for our customers. So we are really like we want everything.

Stefan Debois - **19:02**

Yeah.

Bruno Pauwels - **19:02**

So exactly that's so important to make the. The line there. We. We keep our data of. Of our sales kind of flow and support kind of flow in HubSpot and Gong and all of that stuff. Whereas our platform obviously lives in. Well, it's a

logically separated monolithical structure. So we have databases in with Amazon, but it's one database and all the users data are in that one database. So the data is divided logically. So being sure, and I mean 200% sure because we're talking sometimes about medical data here. That data is. Well, the wall between that is impenetrable. That's fairly important. Also the data structure that we now have is not optimized for reporting purposes as from a point of view that the performance is not optimized to run such kind of queries on sometimes a large amount of data.

Bruno Pauwels - **20:11**

And then we come into the more kind of challenging part of it all because performance updates having like an in between data warehouse from which you query for example solutions that have been invented years ago and that have been implemented millions of times. But our case is kind of tricky compared to a lot of different cases because all of our surveys that people create themselves are completely different and that means that one of these queries that would be entered into an AI is basically like, give me all the people that are this tall and weigh this much and then give me the correlation on their own orders and blah, blah, blah. But there's only one questionnaire that has these kind of fields and that combination. So that means that every single questionnaire could be completely different than all the other ones.

Bruno Pauwels - **21:06**

So there is no such thing as if you, if someone is asking you about the length, the height of a person, this is where you have to look. No, it could be question one in this questionnaire, it could be question 27 in a different questionnaire, or it could just never exist within there. So that means, and that's where AI obviously is the logical choice to help people analyze that. It needs to be smart enough to actually go and check what's available and then handle all of these things in a different way. Whereas, because there is no way of. Well, in theory we could try and write something in between to abstract that.

Bruno Pauwels - **21:46**

But I mean you always hit a wall at some point where you need some kind of an intelligent kind of traffic agent that helps you find the right data and correlate it.

Stefan Debois - **22:00**

So yeah, that's about it.

Tove Staaf - **22:02**

I'm just going to quickly show. Okay, so this is the homepage and you can try an assessment here. Then this is like an example assessment you can take. It's a very simple one, management self assessments. And then I mean like the way the questions are asked, it's a bit like traditional survey. But you see already here that you can do some intermediate feedback. And if I answer differently, the feedback will also be different. So I'm going to go through it quickly. At the end you see your score which is calculated. You can also download the reports where you have then again your score and more explanation about what to do. And so everything can be branded in your own logo, which can be the role of your customer, of course.

Stefan Debois - **23:20**

And this is typical way how they answer the question, like strongly agree or disagree or is also like kind of

reformation everything.

Bruno Pauwels - **23:28**

Yeah, we have 24 question types, which is typically open text, multiple choice, radio buttons, sliders, ranking. It could be, it could be a number of things.

Tove Staaf - **23:42**

So this is then generated with graphs and conditional contents and so on. So what we have then next is if you go then back to the editor. So this is the editor where the questions are entered. There's also design and everything. I'm not going to show everything because that's pretty straightforward. Then we come to the Results and the results are now in our. This is not the Lismo dashboard. We have our standard dashboard and then Lismo dashboard regional dashboards more elaborate. And people can also make their own dashboards and they can combine data. While this is a more basic dashboards. So but yeah, typically like you see for different questions how many people have responded given a certain answer percentage in absolute values. And you can also do filters and everything.

Tove Staaf - **24:49**

So this is in fact the data that we want to use to put the chatbot.

Stefan Debois - **24:56**

Is there also like weights applied for calculating the scores?

Tove Staaf - **25:04**

You can apply weights. So you can or what you often have is that graphical choice questions. And then for example you have for example in cybersecurity the choice question could be like do you already use MFA or not? And then no is 01 is or yes, it's one and I don't know is yes it's two and I don't know is half or is one whatever. And then your score is calculated. But you can also, if you have different questions, you can also attach weight to the question. If you say that a question about MFA is more important than normal, you can work with ways. So yes, okay, great.

Stefan Debois - **25:53**

And, and I think what Bruno said is one of the core problems with AI driven analysis is, you know, as you said, each of your survey is a bit different. So throughout these two years that we've been building, I think we learned a couple of very important lessons. We've tried every method imaginable. In a way we assumed, well, AI is really great at writing code, so probably find some logic and be able to analyze everything. But throughout these two years, what we learned is one, there are a couple of things that you need. Obviously you need your data, but you also need very good metadata about your data. A description of the column, the type of the column, but also what are some of the limitations of this specific data. So all these information makes the AI better be able to better decide what.

Stefan Debois - **27:19**

To do with the data.

Stefan Debois - **27:20**

Like for example, one of our customers analyzing survey data has a field called 9999 which means that person did not receive this question. So you need the context of what this 99 means. If these things are could be in a way from your site couldn't be automated to generate missing, then we can definitely go on to the next step. But and this is the hard truth that we realized, no matter what you do everything from text to SQL, just because of the basic fundamental characteristic of a large language model is that they are probabilistic systems. But with data analysis, with, especially with descriptive analysis, you want to have. What was the word?

Tove Staaf - **28:20**

Exact outcome.

Stefan Debois - **28:21**

Yeah, the exact output deterministic outcome. So this is a problem that every solution that is building trying to solve this problem are facing. You know, databricks have their genie. There are a lot of other tools who have this. Who's doing this text to SQL or text to Pandas way. And each one of them has something that they're adding. And what we came to realize is that making these probabilistic large language models into deterministic is simply not possible. We can get to 95%, we can get to 99%, but then the last fraction of missing percentage causes that the user just don't trust these tools anymore. And we've seen it with our users, 1 out of 9 out of 10, all the answers are correct.

Stefan Debois - **29:22**

But 1 out of 10 when it makes some kind of quirky mistake, the user, the end user, especially when the non technical ones, they're kind of worried like I have to double check and stuff like that. So that's why we built another layer on top of it. So the first layer of the text of SQL is more for the data team to really check how it is, how it's working and is able to make predefined queries which has a couple of parameters that only can change, but all the rest is exactly the same. And so the end business user has only access to these predefined queries where a couple of things dynamically can change. So for example, if I say okay, how is my sales doing in Antwerp?

Stefan Debois - **30:24**

And then I get a line chart that goes up and then as a data team, I have defined it as a predefined query. When the business user asks how is the sales doing in Brussels? Then you would use the same query but only change that one value or a couple of values depending on the type of question. So that's what makes absolutely 100 sure that the result is accurate with that. I mean sometimes it's even better to get an irrelevant answer than a wrong answer. Sometimes, you know, it's AI was like, I asked this question and I'm interpreted in this way. But at least the chart that is generated is absolutely 100 correct. Which is kind of annoying, but it's still better than having an incorrect answer.

Stefan Debois - **31:21**

So yeah, that's what we, I can, I think we can show, I actually show you a small. Maybe you have, we have ignored slides some.

Bruno Pauwels - **31:41**

No maybe interesting to add as well. In order to get the Data in Luzmo in a usable way. We are also transforming everything because for example, for our questionnaires only, so that doesn't even involve the reports or anything else. Just a questionnaire is already over 50 tables in our database. So start building a query that gets the right answer there. For 99% of the people, it's impossible. So it's only our developers that actually kind of understand how that works because even then it's still difficult. So we kind of pre transform the data in something more digestible and kind of flattened out structure which is less optimal from a database point of view. But it's kind of like Google with their big data kind of approach, so it makes more sense and it's easier to search and easier to query.

Bruno Pauwels - **32:44**

So that, and those kind of things are things that we indeed need to figure out when we decide to go with a partner and what is the best solution that works with that other tool. So for example, for Lismo we're using more flattened data. It could be that you say this is the optimal kind of structure to get this kind of data in so that the AI can work with it. But that means as well that we are making separate instances, basically separate views, column table views for each questionnaire, which basically means they have different columns and.

Stefan Debois - **33:27**

All of that stuff.

Bruno Pauwels - **33:28**

And if you continue the line, that means that we can ask a user like, hey, fill in this little descriptive field for this question so that the AI knows what to do with it. So I mean you can go back up the chain to force people to give you the answer that you need all the way at the end for the AI to actually process it. And the line between is something that's automated. Yeah, super easy. So I like the insights that you're giving there, Amra, because we're kind of on the same kind of track in terms of getting that data in some kind of way more reliable, more digestible format.

Stefan Debois - **34:12**

Exactly.

Bruno Pauwels - **34:13**

You can get everything back because then an AI will never be able to get the right thing, like you said, then you need to have very specific queries and even. And then we would never reach the end of it. But on this flattened structure it's easier to have like a set of predetermined.

Stefan Debois - **34:31**

Also learning is, you know, sometimes flat structures are, I would be assumed it's better because it's just like one thing. But with our new evals and new tests we have like a SQL database with, I don't know, last time we just checked 12 tables and that actually works also Very good. Even the flat structure.

Bruno Pauwels - **35:00**

No, no, exactly. It's finding that balance in between. Like you said, we flattened it completely now just for ease of use because Luz mode doesn't handle like a star shaped structure which we are basically in. So we needed to move away from that. And then you, yeah, you can have a one or two layer kind of structure with two or three tables but you get stuck quite easily. So finding that optimal structure specifically for.

Stefan Debois - **35:29**

Survey data, what we learned throughout things is that the ideal, and this is we tried different formats. The ideal structure for survey data is not. Because what we used to get was one long table with each respondents as a row and then every question and it can go up to I don't know how many thousand rows and then we could not even give the sample data to an LLM. So that's where it stops. So one of the things, how we solve it is split the data in three which is one information just about the respondents ID and all the characteristics of the respondents. Two with all the questions and the possible answers and the types of the answers. And three is just a triplet of merging those user ID answer.

Tove Staaf - **36:29**

And he understand that.

Stefan Debois - **36:30**

And he understands.

Bruno Pauwels - **36:32**

Yeah, no, that's exactly, exactly what I would expect to be the most logical way to do it without going into this kind of weird start state shaped kind of structure because then you have like self referencing for tables and.

Tove Staaf - **36:49**

Then which context did you analyze survey data with your tool?

Stefan Debois - **36:55**

Yeah, one of our customers wanted to answer. I mean just to give you context. We had a, a previous product which was like a plug and play. Upload your data and analyze data. But then we realized it is not possible to have one generic AI tool for every type of data. So that's why we are taking a step back where we becoming like a, more like the middle layer for data teams. They can precisely fine tune, you know, adjust parameters for a specific data analysis agent, whether it's for survey data or where they can put their own business logic definitions and all that kind of things and really create this one specific data agent and then use that to generate insights.

Tove Staaf - **37:46**

Okay, so we have time.

Stefan Debois - **37:53**

Yeah, I'm just going to show you like a short thing that I just did an hour ago which was a test with one of our customers. So it just sent me one CSV file. So let me just show you how the data in itself looks like. So this is a data, but it's a survey data and if you look at the sample it has a lot of variables. How Often do you drink coffee? And you know, typical.

Tove Staaf - **38:49**

This is one table. Because everything in one table.

Stefan Debois - **38:52**

Yes, this is one thing.

Tove Staaf - **38:55**

This is the survey data and the respondent data.

Stefan Debois - **38:57**

And because this one is simple enough, it's 20 columns, it doesn't, it works fine. But as you can see, it has these values, 999 and that kind of thing. So this is the thing. And then you can add actually metadata. So you can add a description very soon. I mean, we used to generate it with, using an LLM before and we will add it here soon again. But here is where you put in all the constraints. So I just did one thing, okay, so this is a way it applies to all the questions except for this one. So right now I did not add much description to it. And so this is the place where you, is the playground where you modify your AI agents. So here I just wrote as a Persona, you're an expert survey data analyst, you speak Dutch.

Stefan Debois - **40:11**

And then here's some of the guidelines. So this means that the respondent didn't receive these questions or you can use it for particular data set or you can use it as a general rule of thumb of how the AI should behave.

Stefan Debois - **40:30**

Also here in the guidelines or instructions, you could specify, always provide a line chart or a graph or just a label.

Stefan Debois - **40:39**

That's how you. And then, so then you can just start asking questions. And in this specific case, I asked, okay, welcome to Smokeless by Gen Z. I was very specific to it. And here you see that. And this is the special thing with Bobby is we are kind of emulating like deep reasoning models, like Deep SEQ and stuff. But the difference here is that instead of deep SEQ model is they just do one time, they think one time and then they generate something. What we are doing here is it thinks, it then says, okay, I'm going to create, I'm going to do the first steps. And it's actually able to execute the steps. So in this case, let's just see, the first step in our analysis is to inspect all relevant columns, identify any potential issues.

Stefan Debois - **41:51**

Since our objective is to analyze the columns, that will help us to filter for generation Z. Well, there is text next to it. And then retrieving metadata from catalog these columns out. And then really step by step, I'm going to do this. And I did this. Let's observe, let's do the next steps. So instead of one input and output, it's actually doing 20 steps to actually create this SQL query and create this chart.

Stefan Debois - **42:31**

You don't have to read the steps every time. What we learned from the past as well is with everything around AI, it's kind of black box. And we would like to open that black box to really make it explainable and understandable to gain trust in how lobby works.

Tove Staaf - **42:49**

But if you're giving the same data and the same prompt to chatgpt or to Cloth or something else, we did not have like produce exactly the same results. Or is this one.

Stefan Debois - **43:08**

It causes more to think because you know, large language models are very confident and it just spits out anything. So with this, just this approach, we can reach more than 90% accuracy and we do proper evaluations. Like if we're working with a partner, it's not just okay use it, but we actually let's evaluate the thing and get it to 90 to 95% because.

Tove Staaf - **43:34**

This also uses an OpenAI API in the back.

Stefan Debois - **43:37**

Oh, you can actually choose your own models. So here it has different skills you can use. In this case I'm using GPT4 mini, but you can use Cloth. Any particular models that you would perform would prefer some. Some models are better, some models are quicker. So it's, you know, and also lots.

Stefan Debois - **44:02**

There's not one size fits all. So if you just ask a question, maybe four or many will provide a live well answer. But maybe for another type of question, Claude will maybe provide a better answer. So you could in one of the next releases is that when you ask a question you do a kind of internal benchmark which model has the best performance and use that for the next.

Stefan Debois - **44:27**

And you could also give agents skills and like for example, yeah, execute SQL query. Maybe some of them they don't want to execute it, but just get the SQL query so they can copy and paste it to use it somewhere else. Like for huge databases it's not so good idea to turn it on because sometimes it can do a query that takes entire day to run, for example and then one of the things register a query template. So this is the really interesting part and a big differentiator with all the others that we've seen is that every time that these agents run they are. I mean if you turn it on the query or the result is saved as a template, but not just a template, but more like a generic template. So here are the templates that was created.

Stefan Debois - **45:32**

So for example Sawymil Preferences by Social class. Here you see the SQL query that it has generated and you will also see that you can change specific parameter. Using this in a rack you're able to get this query and change instead of soy milk you can change it to I don't know Kala. And because it's constraints it will use only this query but with the small adjustments and you can edit it however you want as a data team and then you can say okay, this query is approved which then comes to this one. So here is one of the approved queries. So the end user, you can say the end user, the non technical users are only allowed to ask questions that are related to one of this.

Stefan Debois - **46:43**

But these are generic enough for it to not like only that question that doesn't make sense but generic enough to modify anyway. And then the next step is like what we're doing now is adding slack integrations or teams integrations and in the end it's just an API. So you can, you know, use it however you want it. As long as you have the data source, the metadata then you would be able to use these agents in a very.

Stefan Debois - **47:28**

Related to governance. You cannot compare with.

Stefan Debois - **47:32**

Yeah.

Stefan Debois - **47:33**

With everything here around the credit templates. Also you can only ask questions what can be asked or maybe asked to your data.

Stefan Debois - **47:44**

Yeah, and also based on user permission. Based on. Yeah, all that kind of stuff.

Stefan Debois - **47:49**

And that's not what ChatGPT is intended for.

Tove Staaf - **47:54**

Yeah, yeah.

Stefan Debois - **47:55**

And that's what we've learned also from the past and definitely with PII data that data governance user permissions, that data cannot be misused, that you cannot ask specific questions and get all the data and that's some kind of control.

Tove Staaf - **48:11**

You have to program it.

Stefan Debois - **48:14**

Let's get the framework address with wobby that which would like if you start you have this 70 75% accuracy with a framework of copy you goes up to a 90, 95% accuracy.

Tove Staaf - **48:29**

And you have like all of SaaS companies that already use your tool like in an embedded way. Not just like. I mean let's use it for inside their product basically.

Stefan Debois - **48:42**

Well that's what we're doing now just to give you the context. We did this pivot in end of December. So now we have been building the first version of the new platform based on all the learnings that we. I mean all the things that we learned from our previous product. And it is. Yeah. One of the ideas is to you know, okay for SAS companies with data that's interesting but also for internal for enterprises who have. So right now what we're doing is not okay, here's the product and you can buy it but rather like three months innovation projects to do together to co develop. And this is something that's.

Stefan Debois - **49:39**

Because in the past we just had to be very open and transparent. We had this kind of user based license but now with the new pivot we have this.

Stefan Debois - **49:50**

Where is it?

Tove Staaf - **49:55**

Don't know what you're going to see. Yeah.

Stefan Debois - **49:59**

So we've now WOBI Innovation Lab. So it's a three month journey depending on type of use case it goes from 10k to 3040k because we don't want to be a kind of pilot exercise and I just have it really be embedded in SaaS applications really make sure that you are willing to use wobby. So that's the aim of this innovation that to really make sure that within this 12 week program that we collect to the data source that we recruit the agents that we are embedded in your offering make sure that we go from that 70 to 90, 95% accuracy and also within these 12 weeks to see what is the value. We have to see this innovation as a way to really make sure that MOBI is a must have for quantitative that we really can deliver value to the customer.

Stefan Debois - **50:56**

And of course after 12 weeks we are already busy with I think 6 this week customer 7 will be on board in this innovation lab to also see during this 12 weeks what is the value that we're going to deliver for quality quantum also for the customers and define a licensing model. And then afterwards we could see kind of this investment upfront to refund again after this 12 week program. So this allow us to really connect to your data source to HubSpot or to specific big query and so on. We could agents embed in every 2, 3 type of iterations with our what the AI experts to really make sure that the agent with the context solves specific key.

Stefan Debois - **51:54**

Yeah and I think like I think Bruno will really understand this. There is and we know the market very well there is not one company tool that is out of the box suits your specific needs. So it's going to be a lot of evaluations. Trying out just the AI agent is impossible. And I think it's a very exciting question is it possible to build one agent that is generic enough but has a lot of context for it doesn't really matter on which type of question is that but by the characteristics of the questions that is able to generate up to 95% accuracy. And then the following question is can we create these pre generated queries, predefined queries for a broad set of questions so that it reaches the answer to 100%.

Stefan Debois - **53:07**

So those are the two very exciting questions that we can hopefully find out together.

Tove Staaf - **53:18**

Okay, yeah.

Bruno Pauwels - **53:20**

My main concern is especially things such as showing those queries to our users, having them check them or approve them or even look at them. So we need to abstract that so far and pull that towards ourselves. And again, because every questionnaire is different, it needs to be that generic or it is just not viable. And that's the hard truth of it because indeed our users, most of them, are not tech savvy at all. And even showing those intermediary 20 steps

will probably confuse most of them.

Stefan Debois - **53:59**

Absolutely.

Bruno Pauwels - **54:00**

So yeah, it's finding that balance. Indeed, that's going to be where.

Stefan Debois - **54:04**

The make or break is. I think These two, these 20 steps in between is really, it's the playground, it's where the team is checking them. Not business user, not the business user. It doesn't make sense for them to see that. But the other question is even more interesting, like can we make these predefined queries, abstract them in a way that it's applicable to all types of questions and questions? And the first impression I had was, oh, that's going to be impossible. But now I see some ways where it could, because you have the question type right. So whether it's a liquor scale or things. But the question it asks is, can.

Tove Staaf - **54:58**

Be.

Stefan Debois - **55:01**

The question could be swapped over time.

Bruno Pauwels - **55:05**

And that's indeed the thing. So it is usually fairly well, the first day we go live, the first user will find the use case that we didn't cover. But the main usage would be fairly simple in the sense that I have this data and there are a few preconditions. And now show me what happens to some other specific data. So it's always this question, these questions, presets basically or conditions. And now show me the impacts on a different question or two or three questions, something. So it's always that same kind of a pattern. It's just the actual questions and the actual conditions will change. And again, I think we have 24 question types, so that means while some of them aren't even relevant in this case, but for example, for a multiple choice, you know, these are the options for that question.

Bruno Pauwels - **56:03**

So all of that is something that is fairly easily configured.

Tove Staaf - **56:07**

Yeah.

Bruno Pauwels - **56:09**

So yeah, I think it's possible, but I think it's not going to be as easy as just plug and play, like you said. And like you said, indeed, there's not really something that's extremely reliable and extremely easy to use that you can just take off the shelf anywhere.

Stefan Debois - **56:30**

That's also why we stopped with our user based Monthly pricing because as you said, Bruno, it's not something off the shelf. You really have to customize the context and so on. And that's also what we see a lot of traction with this Innovation Lab that we tackle the problem together to really make sure that within these 12 weeks or maybe even in eight weeks that we are up and running and embedded in your solution. Otherwise we just keep running in circles and we're not solving specific. That's I think the lesson that we learned from the past. That's also why we took another direction to really co develop together. It remains the IP from the customers, it solves your issue and that's where we see the success. It's very hot today.

Tove Staaf - **57:22**

What would be the pricing structure?

Stefan Debois - **57:25**

It depends. We can share some material around it. When we see. Today it's between 10K3 the minimum. Yeah. We also have one customer that's really on a global scale for six months that we can. We have a kind of template we could see. We're very flexible with that one between 10 to 40k to cover just because of our AI engineers and also with the next step to see what are the key drivers. How do we fit in your pricing model towards your customers. It's kind of upfront costs which will be credited after a continuation of the.

Tove Staaf - **58:10**

12 weeks because the continuation and a license cost if it's embedded in our products.

Stefan Debois - **58:15**

There's a platform cost but there we just have to see what's the. We can share some insight. Maybe we have to set up a separate session to show you some insights.

Tove Staaf - **58:25**

In possible waste because you also have the cost of your API usage for OpenAI and the other. Is that then transferred or is that.

Stefan Debois - **58:37**

I mean, yeah, there's going to be some kind of usage based thing as well. For example, it depends on your assessment. How often do you think your customers will use it, your users will use it. So these are the things that we can.

Stefan Debois - **58:58**

What we are learning during this Innovation Lab to really see how it's used as a frequency. But I will share some material about Innovation Lab, how to scope it and then after Innovation Lab because we are now in the position of the first ones we're going to roll out of this innovation to also share some insights about our data drivers for the licensing. So I will pick it up separately.

Stefan Debois - **59:31**

Yeah, I would be really excited to find solutions for this problem because now you really triggered me like okay, how would you. These are 25 types of questions and 25 types of. I mean categories. Some numbers probably. Obviously, since we cannot do anything you.

Bruno Pauwels - **01:00:00**

Can, you can probably flatten it out into a few kind of things. So we have things that are numeric and then some things that are for example, like a multiple choice with only one option with two options. So I mean a lot of these things, for example we have what we call a type ahead question but it can come down back to a multiple choice basically. So if you're smart about structuring these types you can probably flatten it out to probably like I don't know, 5 to 10 ish relevant, kind of really unique types. But yes, some are more eligible for data analysis than the other. Some are fairly silly. So yeah, we'd have to look into that as well.

Tove Staaf - **01:00:55**

Question about open text because customization.

Stefan Debois - **01:00:59**

Yeah, that's not what we our priorities. I know we could do that but it's kind of like a separate problem. I mean you need to classify it in a way. We tell you how to do it on your end.

Tove Staaf - **01:01:17**

But is it not just calling. I'm just calling the ap?

Stefan Debois - **01:01:21**

Yes, it's a very easy problem to solve but that's not our focus. No. When it's structured thing and analysis part.

Tove Staaf - **01:01:35**

Because that's also something that our user would expect. I think.

Bruno Pauwels - **01:01:38**

Yeah, I think it comes down to the similar kind of use case but instead of show me this in a graph it comes down to just explain it to me based on what people responded in an open text. Like for example, people that are again I'm going to. They're this tall. What is their opinion about blah blah blah. And then it just, it's all open text. So you have to push all that open text to the AI and have it make a summary. And in theory that could also generate a chart. But it's something that's kind of outside the platform so it's hard to predict whatever you're going to get there. So then you're going to lose that reliability. But it's something that indeed we can see as a very popular use of this as well.

Stefan Debois - **01:02:29**

I think. So what LLMs are absolutely bad at are.

Bruno Pauwels - **01:02:36**

Calculation.

Stefan Debois - **01:02:37**

Just like turfing. They just don't do it reliably.

Tove Staaf - **01:02:43**

Summarization. They do it summarization as well.

Stefan Debois - **01:02:46**

Yes, but it will not give like okay 60 answer are happy or no.

Tove Staaf - **01:02:51**

But for example in our own lead form we have customers or prospects that need to, they need to enter a description of their requirements or like what do they use our tool for? Like we have a lot of open text. Yeah. You could ask like how Many people want to use our tool for quizzes or the generation for this use case. I mean find in the categorization. This is something that could be useful.

Stefan Debois - **01:03:23**

I mean yeah, I've even built it. I mean I have. I have a streamlit app that you know, you do a CSV and it has a lot of different rows with open ended question and then it creates a new column that classifies it in a particular way. It is very easy. All I'm saying is that's not our focus.

Tove Staaf - **01:03:49**

Yeah.

Stefan Debois - **01:03:52**

But we can, yeah, we can tell you how to do it. I can share you my code. What was the. So that thing?

Tove Staaf - **01:04:08**

So the output is generated as graph. Also that's coming directly from the. From the API.

Stefan Debois - **01:04:19**

Yes, it comes from the API and what you will essentially get is the chart configuration which you can use in your own tool. So that's thing you can also get all the steps we think steps from the API as well.

Tove Staaf - **01:04:42**

Okay, so if you. Yeah, if you could send me that information.

Stefan Debois - **01:04:49**

We will share some slides about Robby, also some material about Innovation Lab and there are some insights in how to scope the Innovation Lab and some insights in licensing structure afterwards.

Tove Staaf - **01:05:10**

So the. Yeah, so if we go for this lab we're still. I mean of course in terms of risk. Of course if you say like the query building and we have to find something that brings us to long sense accuracy, there's still a risk that we will not find it. Also of course that we spend money and then it build outside the solution. If it's only like 5% accuracy, don't think that our customers would negotiate that. So yeah, that's. I mean that's something to think about. Of course but you're saying.

Stefan Debois - **01:05:45**

But we are here to think it. Think.

Tove Staaf - **01:05:47**

If you just go to CSV in ChatGPT it's also only 95 occurs or even less simple question like on question 4 it's a multiple choice question. Are you satisfied? Yes or no? How many people answered yes and how many answered no. Even there you cannot be sure that it's not accurate.

Stefan Debois - **01:06:13**

I mean if you just.

Tove Staaf - **01:06:15**

You don't need AI for that. In fact it's just deterministic.

Stefan Debois - **01:06:19**

Yeah but the problem with that kind of things is like is that it's also on the human side. From our previous products we learned that people are very bad at giving exact instructions. So sometimes just the spelling or sometimes these things they really change the behavior of these AI models. So what we've put is a way for it to really do it. Iteratively and doubt itself. ChatGPT doesn't doubt itself.

Tove Staaf - **01:07:00**

Ask follow up question if it's not sure.

Stefan Debois - **01:07:02**

Yeah, it doesn't do that. And what it also doesn't do is like especially when it comes to categorical values where the spelling is written differently. Like for example Gen Z is written generation Z in the data. So then like the, in most cases of text SQL it just says oh, I'm going to look for Gen Z. I did not find it. There is not data about it. Well, it's spelled Gen Z. So what we doing is okay, get to understand the metadata. Look for all the unique values for each column.

Tove Staaf - **01:07:42**

You get updated with this metadata and.

Stefan Debois - **01:07:46**

It'S not just pre prompted but iteratively prompted. So the AI can sometimes. Okay, I have to analyze this, I need the metadata, the unique columns metadata of these, these columns. Oh, I did not find it. Okay, I'm going to try these, these columns. So it's really like a lot of iterative way to get to the 95% and then the next part is really these tailor made queries, predefined queries that's based on what they've generated and then make it really generic. So that's the roadmap, the only roadmap to go to 900 there. Yeah, unfortunately I already believed when we, when I first two years started two years ago I really believed, oh, AI will get smarter and will solve this problem very soon. You know it's gonna be sessions and it did. But it's like the last few percentage or less 1% is just.

Bruno Pauwels - **01:08:58**

Okay.

Tove Staaf - **01:08:59**

Okay.

Stefan Debois - **01:09:00**

Yeah, exactly.

Bruno Pauwels - **01:09:01**

Yeah, we talk to people as well and they always said like you can implement AI but you have to put it in such a small box that it forces it to only be replying this exact thing and then you can do it. But that, that destroys the range that an AI can offer. But at least you get the correct answer. So you have to find the balance between giving something broad to a user or giving them very small boxes that you can actually rely on. And finding that Balance is continuously F 4.5 from GPT is a lot more reliable, a lot more expensive.

Stefan Debois - **01:09:42**

But that's a perfect explanation. I think I will use it. Essentially what we did was give the data team a wide enough freedom to generate these queries up to 95% accuracy and then the next 5% we limit it so hard for the business user who has no technical skills that they only able to use these approved and predefined queries and that's how to do it.

Bruno Pauwels - **01:10:17**

Yep.

Tove Staaf - **01:10:18**

You have suggested questions and kind of how is that presented to the business users?

Stefan Debois - **01:10:26**

So when the business user asks a question they will ask. They will look in the predefined queries. Can I answer this question based one of these things? Okay. And then. And then it will then change the parameter to base what it has and asked. And if it doesn't have it will ask maybe more questions. Or you can turn on the setting on where it is able to generate these queries with you know, with the full freedom. But then like it needs to be approved. Be careful to use this because it needs to be approved or something like that.

Tove Staaf - **01:11:04**

Yeah. Instead of approved queries. It's not in the set of approved.

Stefan Debois - **01:11:09**

If it's not in this in the set of approvals queries.

Stefan Debois - **01:11:12**

The advantage of the approved queries is that you avoid hallucination and also that you are consistency. If you ask question the next day again that you always have the same answer and if you ask the question tomorrow you have a totally different answer. That's where people getting lost in proof question.

Tove Staaf - **01:11:32**

Is that then implemented via hack? Is that kind of.

Stefan Debois - **01:11:36**

It's. Yeah, mostly it's rack but then with and edits it's going to behave a bit like a SQL AI agent as well where it gets only the. The metadata of the specific columns that it has the ability to change. So then it's going to, you know, I don't know, Brussels maybe it's spelled Bruxelle. So it's going to fill that information but mostly based on. On rag but not like a naive rag where you just do like. Like similarities or to.

Tove Staaf - **01:12:10**

That's.

Stefan Debois - **01:12:10**

That's. That's the old main point. But the cool thing about this is with these predefined queries and the fact that people can ask questions and that it builds on. It's not the only like you know, only the data team predefined everything. But in a. In a way the more it gets used, the more data is generated more approved queries. So more accuracy. Pretty much more levels of or complex question it can answer.

Tove Staaf - **01:12:46**

But the approval of the question needs to be done by us then basically together with you.

Stefan Debois - **01:12:54**

But I think, I believe that there is a middle ground where we can. Where we can build enough generic predefined queries that is applicable throughout all your data questions. That would be the goal.

Tove Staaf - **01:13:15**

Okay, maybe can you also come up with insights without the user asking a question like that? You say okay every month, for example, it's going to look at the data which has been added.

Stefan Debois - **01:13:39**

That's actually our vision for the future. Like I said, you know, oftentimes the most interesting insights are in the unknowns. I think the questions you did not even know to ask.

Stefan Debois - **01:13:52**

And that's what we're also doing in this innovation lab to really go to that stage that we see today to really get started, get trust in these LLMs. Start with the basics. And I think 78% of organizations today they're busy with these descriptive diagnostic analytics and they need trust in that stage before you go to this community for prescriptive analytics.

Tove Staaf - **01:14:16**

Yeah.

Stefan Debois - **01:14:16**

So that's also. We grow together with the customers to go to that stage.

Stefan Debois - **01:14:23**

The cool thing about it is when we have set up all these things, these agents and plus the predefined queries to get to the first version of this proactive thing is just to build cron jobs on these predefined queries.

Tove Staaf - **01:14:41**

Pretty much.

Stefan Debois - **01:14:42**

But then the cool thing is then when you run a predefined query and it noticed some trends then the agent is able to do the next step. So okay. Oh, this number is going down. Let me look why it has happened and then it gets a level of freedom again to do more analysis.

Stefan Debois - **01:15:02**

Let me share my slide because this is some customer examples. So for example here Segment B shows 30% decline in product A. So we just analyze it. So what you in the background just analyzing the data. So specific trends and then they come with the next step. Reallocates 20k to hit your targets. So we have this type of questions already done. Cool. That's it. You have to start with the beginning the basics descriptive diagnostic. Gain trust in these queries and then you can go to the next step.

Stefan Debois - **01:15:46**

Yeah.

Tove Staaf - **01:15:48**

Okay.

Stefan Debois - **01:15:49**

Thank you guys.

Tove Staaf - **01:15:51**

Tover do you still have questions?

Bruno Pauwels - **01:15:53**

Tova has left the building. She had to jump to another call.

Stefan Debois - **01:16:00**

Right. We will take the actions and then let's have a short follow up then in coming days.

Bruno Pauwels - **01:16:09**

Fantastic. All right, thank you guys so much.

Stefan Debois - **01:16:39**

The deeper problem snapped over promise taken over.

Stefan Debois - **01:17:03**

Yeah.

Stefan Debois - **01:17:03**

Make a local use case for this. Yeah. Lismo is well active. Okay. We can embed analytics tool for the pivot to R and then. Yeah. Okay. That.

Bruno Pauwels - **01:18:14**

Finding the imbalance this trust and flexibility. Did I network out that saf and that is. Yeah. Express some would have probability for marriage.

Tove Staaf - **01:19:37**

In self service locally grown as code of concepts download and upload and.

Stefan Debois - **01:20:27**

Release the agent table constraints.

Bruno Pauwels - **01:20:50**

And it is the use case reliable data.

Stefan Debois - **01:22:01**

Grits is the be is just on the predefined queries.

Bruno Pauwels - **01:22:29**

Sales for half an argument. That's fantastic. That can cavill. Yeah. This is so simple.

Stefan Debois - **01:22:50**

Expert AI engineer now the.

Stefan Debois - **01:22:55**

Focus of. Yeah, absolutely.

Bruno Pauwels - **01:23:14**

Use cases later again.

Stefan Debois - **01:23:19**

Yokna.

Bruno Pauwels - **01:23:23**

Gentlemen.

Stefan Debois - **01:23:27**

Bye.