

AI-infused recipes with a personal twist.mp3

Matt Eastland [00:00:06] Welcome to this bonus episode of the Food Fight podcast from EIT Food. In these episodes, we break down the food system for you, unpacking the ideas that create positive change. We'll be hearing from industry experts as they share new concepts and innovations, teaching you everything you need to know about a topic. Without further ado, let's get into this.

Jochem Bossenbroek [00:00:33] Hi, I'm Jochem Bossenbroek, CEO of Verify. And today I'm going to be teaching you all about using technology to make better food choices. Yeah. So starting with the simple explanation, personalised nutrition is using the knowhow of your personal nutritional needs to find the best food choices for you. And that's the simple explanation. There is also a much more difficult explanation where you could say that people are enabled to make the right food decision based on their dietary needs or taste preferences. But also there are genetic makeup. Even their gut microbiome profiles, including the gut bacteria, blood, biomarker levels, and any type of information that says something about what you should and shouldn't be eating. Going a bit further back in time. If I look to my grandparents, for example, they used to eat whatever vegetables were in season and were locally available and what they learnt from their parents about what to eat and they kind of sensed what they would need in each season and were completely in tune with that. I think over generations we have lost that know how a little bit and indeed nutrition has moved more towards the front or the application by dietitians and nutritionists where people would come if they had extreme overweight or obesity or diabetes type two, because then they understand okay, and might be doing something not completely right with my diet and I should start adjusting it. And then they would get personal advice based on their weight and maybe based on what they like or they don't like. So already a couple levels of information, but only relevant for this very niche group and only those who would actually find a dietitian. Personalised nutrition came up around 5 to 7 years ago and then it was all about mapping your genetic makeup. So looking at neutral genes, something in your DNA that says whether you can actually metabolise lactose, for example, and then looking at what is your risk of developing obesity. So using specific information points stemming from your own DNA profile and then use that to produce specific generic advice for a person like avoid lactose, for example. And then there were companies that started also doing microbiome testing. So gut microbiome, looking at the bacteria that live in your gut, looking at diversity, and about the specific species that would appear there. And based on that, you can also get quite personalised recommendations and avoid specific food types or use more fibre in your diet, for example, to increase the gut microbiome diversity. There was the realisation as well, and also that's the start of our company where we said actually if you do such a test then you get advice. That's not where it should end because that needs to be actionable. If I get specific advice from a nutrition perspective, I need to understand what actually can I do in terms of what food do I need to prepare, What are the recipes that I can use? What meals should they be eating for breakfast, dinner and everything in between. So people need to be taken by the head. It's also understanding that it's not just about the microbiome profile. It's not just about good genetic makeup. It's not just about the advice that you get from a dietitian. It's about that whole bundle of information that actually determines every day what your ideal food intake is. So if you use all that information and then make it actionable and help people to make the right choices, in my opinion, that's where personalised nutrition makes the most sense, worth what it should be moving towards. And that's of course what we are doing as well. 35 started five years ago, and that was after selling my previous company that was active the biotech world. So I was working with my company together with companies that develop new medicines and new drugs and new medical technology. But it started to

annoy me a bit about how much money is flowing through the development of. Things or drugs that actually only treat the symptoms but don't provide a real cure for the condition. And then it was also working with scientists that were demonstrating the potential of nutrition for all kinds of health conditions. So, for example, in some cases, people with diabetes type two can get off their insulin injections if they adjust their diet and they can already reach that effect within two weeks, for example. And there are many more powerful examples of what nutrition can do for your health using that as a tool of inspiration. I started together with somebody who I know quite well, who's a medical doctor and clinical pharmacologist, and we decided, let's set up a system that's fully online that can support people in making the right food choices based on their personal nutrition profile. So capturing the required information and using that information to deliver more inspiration, that is also then actionable because people need to also be stimulated to actually buy the food that they need to prepare these ingredients. So we've set this up, this platform and connect it also to the local supply chains. Just make it easy to make the right choices. So that's how it started. And right now, moving towards this company where we have two main activities. One is very much focussed on people with large unmet nutritional needs. So people with, for example, diabetes that or people who suffer from cancer undergoing chemotherapy. People with gut health issues so they can really benefit from fine tuning their dietary intake according to their personal needs, but also according to the recommendations, the nutrition recommendations for that specific indication. So that's one line of activities where we support these people with the right meal inspiration. And the second line is much more business to business where we enable food companies to find their target audience with pinpoint precision by using our network of food blogs and recipe platforms where our technology is plugged in and we can reach specific audiences through the recipe code that we have developed our own platform that's currently still running on the The Food Fight name, but very soon it's going to be rebranded as Nori. So Nori is our digital nutrition guide that takes you by the hand in making the right food choices and based on the the answers that you provide. Automatically your personal injury profile is established, and once you have done that, you can directly find matching recipe content within the NORI environment. And those recipes come from swap meals. And swap meals is our own recipe platform contains over 1000 recipes that all fit into the guidelines for healthy eating. What the technology does in these meals is swapping for alternatives, but checking for nutritional value, taste and texture and match with the meal, of course, because it should still be a tasty, tasty meal. But the problem that you get when you start swapping is that, of course the cooking instructions do not apply any more to the new set up of the meal. So the key with us is rewriting the cooking instructions, generating new text based on the new ingredients set up that is used for the meal. The future of personalised nutrition will be everybody has to establish their own nutrition profile and they can use it anywhere, not only online but also in the restaurant, in the supermarket, or when ordering food to directly find the best match for them personally and make sure that it's optimised for their personal needs. That's in ten years, she asked me. For 50 years. I have then, you know, but probably what's happening with smart homes that are fully connected. So I in the morning, wake up, take a shower, so go to the toilet. And when you do that, automatically specific biomarkers are already measured from what you leave there. And then you look in the mirror and there is also an automatic display with that shows while today you're doing really well on your vitamin B level, but your five them in D is actually too low and it goes downstairs to your kitchen and your kitchen robot is actually printing the right meal for you that contains more flight images that you need based on the measurements of that very morning. So I probably noticed based on the exact measurements of that day and then throughout the day and your Fitbit or any version of that or a ring that you wear measures, how much movement and activity there is based on that determines the number of calories that you need for all the meals? And and also, if

you have a party with your friends, for example, you hook up your profiles. So your profile with that is your friends. So and then the eye will determine this is the perfect meal for you together that covers everybody's needs. Yeah, I could go on for this about this for a while, but I think it will go in this direction because technology enables a lot, but it's about connecting all the different technological components to create the ultimate experience.

Matt Eastland [00:10:44] Thank you all for listening in to this bonus episode, and we hope you learn something new. If you'd like to find out more, head over to the EIT Food website at EIT Food or EU and please also join the conversation via the hashtag EIT Food Votes on our Twitter channel at EIT Food.