1:27

Alexey

**This week we'll talk about biohacking and improving productivity. We have a special guest today, Ruslan. Ruslan is a data scientist who lives in Berlin. He has tried a lot of healthy and not-so-healthy things to stay focused and productive. Eventually, he found a bunch of techniques, protocols, concepts about our brain, body, and mind that might be helpful to others in the data community. And today we will talk about all these things that he discovered. By the way, Ruslan is looking for a job, so if you need an awesome data scientist to join your team, you can find him on LinkedIn. I will also add his contact details in the show notes. Welcome to the show, Ruslan.**

2:07

Ruslan

Thank you so much. I'm very excited to be here.

2:11

Alexey

**And we're excited to have you here today too. The questions for today's interview were prepared by Johanna Bayer. Thanks, Johanna, as always for your help.**

# Ruslan’s background

2:18

Alexey

**Before we go into our main topic of biohacking, let's start with your background. Can you tell us about your career journey so far?**

2:27

Ruslan

Yeah, sure. After high school, I went to study international business management. Then I moved to Berlin and finished my Bachelor’s in this field and did marketing. I worked in several SaaS companies afterwards, related to marketing. It was more of the business side of things, so I was talking to clients. And I was just very bored. Then I realized that I want to do something more exciting for me and I went for my Master’s.

In my Master's, I studied business intelligence and process management, and I did some data science projects. I completely fell in love with the topic. After these projects, I realized I want to pursue a career in data science and deal with machine learning models, help businesses make data-driven decisions and make the world a little bit better through this. That's how I got into data science.

I first landed an internship at OLX and then I have been working there as a data scientist as well. I also did my Master’s thesis about deep learning. So it's a topic very dear to my heart, as much as productivity and all the stuff I'm going to talk about.

3:38

Alexey

**When did you discover this topic of biohacking and productivity? Was it during your Bachelor’s degree years or later, or when you already were into data science?**

3:51

Ruslan

Actually, I've been interested in that for a long time. I just didn't know that it was called biohacking until recently. But I was always researching about some productivity tips or mental models and frameworks – how you can organize your time – because I was one of those students who didn't study much during the normal study times. I would write the papers just before the deadline and prepare for the exam on the last day. I was always thinking… [cross-talk]

4:16

Alexey

**Like every one of us. [chuckles] Most people, at least.**

4:18

Ruslan

Yeah, like so many of us. [chuckles] And I thought to myself after another deadline, “I wish that next time, I would actually properly prepare.” And then I thought, “How do I trick my brain into doing this? What are the habits that I should have in order to do this?” That's how I got into this topic. Then it turned out that it's not just about mental models, but also your health and some protocols you can use to just help you in doing the work you want to do in the best way possible for you.

# Fighting procrastination and perfectionism

4:51

Alexey

**So what are these habits that helped you during your studying and then later on? Not postponing everything until the last minute? [chuckles]**

5:02

Ruslan

Postponing *some* stuff until the last minute. I mean, I realized that I mostly postponed stuff because I understood that the solution I'm going to create is not perfect. If it's not perfect, it doesn't really make sense to start it, right? Then once the deadline approaches, you just realize that you have to do it. Then the perfectionism goes away and you just do it. I just learned to work around it, to be honest.

I realized that if I'm starting a project and I am not happy about particular things that are challenging things, then I just need to give myself some time to think about it and then accept parts of it that are not perfect. Then I feel that I'm unblocked and I can just go on and work on it. That's kind of my ultimate hack for solving procrastination, for example.

5:52

Alexey

**So one thing is having deadlines – doing things almost at the last minute because it helps you to fight perfectionism. Then the other thing is just accepting that it will never be perfect and then you have to do it. [Ruslan agrees] Is there more to that or just these two things? Should we finish our episode now? [laughs]**

6:12

Ruslan

Oh, no. That's generally about procrastination, but procrastination is not the only thing that I was trying to solve with biohacking. For me, it's also about how to stay consistent in learning some things that don't have deadlines, for example. Or even if there is a deadline and you need to focus very intensely on a subject, how do you do that? How can you help yourself to do it? Also, procrastinating and leaving everything to the last minute is very, very stressful and not healthy, so I wanted to understand how I can have a better, healthier lifestyle and actually work from my strengths to solve the tasks and do what I love. So that's how biohacking helped.

# What is biohacking?

6:56

Alexey

**How is biohacking different from typical productivity methods like having deadlines, or having a plan, or having things like that?**

7:05 Ruslan

I think it's a bit more grounded in science. Biohacking is actually just a term – it’s a buzzword. It can be explained in so many different ways, from genome editing to something simple like going for a walk or taking a break from the screen every half hour. The definition that you can give can be very different. The biohacking that I'm practicing is mostly behavioral. I don't take any special drugs or medicines, but only vitamins and stuff that helps you – things that don't affect your overall – let's call it a “chemical” state – very much. So without chemical intervention. And I found that just behavioral… [cross-talk]

7:51

Alexey

**So we will not talk about mushrooms today?**

7:53

Ruslan

No, I'm not talking about that today. No. [chuckles] I mean, they are really a lot of extreme things that people can do. When I started doing it, I thought that for me, it should be behavioral so that I can create some habits that can help me. And it should be affordable. And it should be something very easy. The barrier to entry is very low, so anybody can try it out and see for themselves if it's helpful or not.

That's kind of my approach to biohacking. I thought in the beginning, it's also just productivity tips and tricks and just general knowledge about health and brain, but it turned out that this is a part of biohacking. It's very powerful and useful. That's how I got into it.

8:42

Alexey

**So taking breaks and going for a walk, are these considered biohacking in your definition?**

8:50

Ruslan

I think so. For example, going for a walk is related to dopamine production in our system. Dopamine is a hormone that basically drives the effort for us to do something. Dopamine is also a hormone that is related to motor movements. When we go for a walk, we literally produce dopamine that can later be used to help us to study and learn and work better. It is one of the ways to increase dopamine in the morning. It has some other great benefits like light consumption. It is biohacking, actually, if you do it in the right moments.

# The role of dopamine and other hormones in daily life

9:31

Alexey

**What is this dopamine? A few interviews ago, I spoke with my colleague Sadat who was describing his experience of going from an individual contributor software engineer to a manager. One of the things he mentioned there was that when he was an engineer he would often get what he referred to as “dopamine shots”. He solves a problem, he fixes a bug, and then he gets a shot of dopamine and feels good about it. But when he became a manager, the gratification he was getting was delayed because it's not him who was doing all these things but somebody else, and it was quite a difficult adjustment for him. Back then I didn't really ask him what dopamine is. But now I have a chance to ask you. So what is this? And how is it related to what he was talking about?**

10:23

Ruslan

Sure. First of all, I need to make a disclaimer that I am not a neuroscientist. I just use the general knowledge available, even though I try to be a bit more scientific about my research and conclusions and look for relevant sources. I will try to give you my definition and understanding of dopamine. We have different hormones in our brains that are responsible for different actions we do and dopamine is a hormone that is produced in our brain on a certain cadence, with a certain volume. It's basically responsible for us doing some stuff – us reaching a goal or going for a walk, it's responsible for motor movements in our body. That's what it does.

It's different compared to serotonin, for example, which is a hormone of happiness and feeling good inside of your body. If you take a bath, for example, and it's very nice. Or maybe you just ate some good food. Even though food increases dopamine, the good feeling you have in your stomach gives you serotonin. It's a bit opposite of dopamine because dopamine is something you need to do outside of your body. It’s something from the outside that gives you dopamine.

11:34

Alexey

**Why does fixing a bug give you dopamine?**

11:38

Ruslan

Because you solve a problem. It requires you to understand the problem, the journey takes, and then eventually you solve the bug, you solve the problem, your brain celebrates it, gives you more dopamine, and sets you up for fixing more bugs in the future. If you think about it, it's really grounded in basic things. You need to walk around as an organism to find some food. Right? If you find sugar, for example – we get a lot of dopamine from having sugar because sugar was not highly available for our ancestors. So that's why our brain currently rewards us a lot for eating sugary stuff. It's the same for doing some mental exercises as well, I think.

# How meditation can help

12:22

Alexey

**Interesting. Can you tell us about your journey into biohacking? During your university times, you were procrastinating and putting off things till the last moment, but then you realized that maybe it's not the best way of doing this. Then, at some point, you discovered biohacking. How did this happen and what exactly did you discover there? What kind of things did you try there and how did they help you?**

12:46

Ruslan

Sure. I would say the first thing that I tried that was very influential for me was meditation. Meditation is a very good technique to stay focused and alert. It helps you to strengthen your prefrontal cortex, so you have better impulse control. [cross-talk]

13:02

Alexey

**Prefrontal what? Cortex?**

13:05

Ruslan

Yeah, it’s the part of your brain that is located in the front. So prefrontal means in front. It's related to cognition. Cognition is thinking, so all the high-level thinking that you have – not your primitive brain that wants to eat and sleep, but rather the brain that solves a bug or plans vacations.

13:30

Alexey

**Or talks right now, right? This is what we’re using now to communicate?**

13:34

Ruslan

I think so, yes.

13:35

Alexey

**Right now, at this moment.**

13:36

Ruslan

Yeah. We have a prefrontal lobe that’s quite active nowadays.

13:41

Alexey

**It’s somewhere here, right? [Ruslan agrees] For those who are listening to this and don’t see, I'm touching my forehead.**

13:51

Ruslan

Yeah. So I started with meditation and that was very good. I had a lot of great feelings from it. When I talk about meditation, I’m mainly talking about sitting in the chair and breathing and counting from 1 to 10 to yourself and just feeling your body – this kind of meditative state. I'm not talking about any spiritual things, because I didn't really practice that. So that was one of the things that helped me a lot.

14:21

Alexey

**I just wanted to talk a bit about that. Did it not feel to you like a waste of time when you tried that? Because you're sitting in the chair and you're breathing and counting, but you could actually be working on things.**

14:37

Ruslan

Well, the thing is – when I think about our bodies, I think that we're not made to function to solve bugs 24/7. We usually have our own cycles in life. Obviously, we go to sleep and then we wake up and we have a certain time when we are the most productive. Then our productivity gets lower a little bit, so we need to take breaks. There are sleep cycles of one and a half hours. We would fall asleep, and then we would wake up. These cycles continue as we go throughout the day. You cannot expect that you will be super hyper focused for three or five hours straight.

You need to take breaks. Usually, because social media is very addictive, we will take breaks on social media. But meditation is a very good, healthy way to take a break. It also helps with learning a lot, for example. Because when we are learning something, our brain changes – it's called neuroplasticity. The brain change actually happens when we sleep or when we meditate, for example. It's a protocol called non-sleep deep rest. This is exactly when the brain is changing. If you’re learning something, meditation is also very powerful.

15:49

Alexey

**How did you open your mind to try meditation? You just heard that it's good?**

15:56

Ruslan

Yeah, I just heard from a lot of people that meditation is good and I followed some CEOs of some companies on Twitter that said, “Hey, meditation is very nice. You should try it out. And that's how I gave it a shot. I used different apps for guided meditation. The one that I use is open source and it's called Medito. It’s basically available for free. You can just download and use it. There is going to be a person with a nice voice telling you, “Close your eyes. Relax. Count from 1 to 10.” Stuff like that.

Usually it’s like 5 minutes, 15 minutes, 20 minutes. I did an experiment when I was doing one hour meditation every single day for a month because another very famous investor Naval Ravikant suggested doing this. It was a very different type of meditation, though. But it was also very helpful.

16:53

Alexey

**How did you understand that it's helpful?**

16:58

Ruslan

Well, first of all, it's about awareness and being self-aware. We have so many thoughts and so many things happening with us nowadays. We have a complete information overflow. We hear so many things, see so many things in social media, basically. Having a break to just listen to yourself and trying to understand how you're feeling feels like a very big relief, even though it's uncomfortable in the beginning. It's not something we’re usually used to. In my experience, it really felt like a relief. Then you get out of the meditation and you feel relaxed. You feel like you took a break and now you can go back to doing whatever you want.

17:41

Alexey

**You've been doing this for quite some time, right?**

17:43

Ruslan

Yeah. I have on and off moments. Sometimes I'm doing it and sometimes I'm not doing it. I think it's also okay, because I don't want my productivity system to be punishing me for not doing something. I'm trying to listen to myself and see if I have the “resource” as they call it, for it right now. And if I don't, it's also fine. But when I'm studying a lot, like nowadays, for example, I meditate as well, because it helps.

18:10

Alexey

**Because it's too much, right? You need to consume a lot of information, process a lot of information, so you need to give your mind a break.**

18:19

Ruslan

Exactly. Some cognition happens while we're meditating anyways. [cross-talk]

18:27

Alexey

**Cognition means learning, right?**

18:28

Ruslan

Thinking. It's happening while we meditate as well, just in the background. We're not aware of it. And the brain makes sense of information we learned and updates the neural network.

# The influence light has on our bodies

18:41

Alexey

**So you tried meditation. What did you try after that?**

18:45

Ruslan

After meditation, there were a lot of topics that I've heard about, but I wasn't sure how scientific they are. For example, I tried…

18:52

Alexey

**Was it important for you that the thing is scientific?**

18:56

Ruslan

Yeah, more or less. Well, I'm a data scientist and I've always been a fan of the scientific method. Everything we do should be verified, blindly controlled studies with some good experiments – with a scientific base. I wanted to do it not because of the placebo effect, although a placebo is a very powerful tool. This is maybe part of a mental attitude we can talk about. But I wanted to know that it actually helps somehow to reach your goals. I tried to find some information about meditation and I saw that it's indeed supported by studies. Reduces stress, helps you focus better, and you learn faster, and so on. And then I tried cold showers, for example. I'm not a big fan of it right now.

19:45

Alexey

**It’s too cold now for cold showers. [chuckles]**

19:50

Ruslan

Too cold. [chuckles] Yeah. Then I also tried to have a proper approach with light, for example, which is something that not many people know about. When we wake up, we need to get a lot of light. And then when we go to bed, we should have very little light. I didn’t know about this protocol. I've heard about it on a podcast and I've been a big fan ever since. When we talk about health and biohacking, sleep is the foundation of everything. The podcast I'm talking about is called the Huberman Lab Podcast. There, Professor Huberman talks about light. He's a neuroscientist. He says that if people would ask him “What is the most important factor for productivity and for health across all domains?” He would say “It's light.” That kind of makes sense. We live on planet Earth and we have daily cycles, so our bodies, through evolution, adapted to the planet’s condition. We want to wake up with the sun and fall asleep when the sun is out.

21:01

Alexey

**Does that mean that during the winter, we should go to sleep at three o'clock?**

21:04

Ruslan

It's a good one. [chuckles] But no. It means we try to get more light – as much light as we can in the morning when we wake up, and just have little light before you go to bed.

21:18

Alexey

**How do you do this? Are the regular light bulbs that we have in our homes sufficient for that? Or do we need to have some fancy setup?**

21:29

Ruslan

The main principle behind this is that we need to get enough light into the eyes. It just happens to be that being outside gives you the most light, even if it's cloudy outside. This is because the glass on the windows blocks a lot of light. You can even measure it with your phone. You can download some app to measure the lumens inside the home or outside. So being outside in the morning is really helpful to get enough light. This sets you up for the whole day. It sets your proper cortisol and melatonin cycles, which are the other two hormones that are related to how active our body is and how sleepy we are. So just being outside gives you a lot of light.

# Behavioral biohacking

22:16

Alexey

**So that's why it's called behavioral biohacking, right? Because you don't really take any mushrooms – you just know that your body needs light. You go outside in the morning, even though in Berlin, sometimes the mornings are really depressing during the winter. You still go out and then it gives you some light – enough light to sustain you throughout the day. Right?**

22:39

Ruslan

Yeah. It's about, again, our like evolutionary development. We needed the light to signal our body that, “Now is the time to go and pick berries or hunt or do some work.” We are biologically the same as we were 100,000 years ago, or maybe even 200,000 years ago. Even though our lifestyle changed a lot, our biology has not. In my practice with biohacking, I tried to replicate a lot of these natural ways of things – how our bodies should function in a healthier way.

And getting enough light in the morning is, for example, good. Interestingly, if you have a candle lit at night, it doesn't… I will just say that if you have a lot of light in the night, it messes with your cycles. It's proven that high exposure to light in the night lowers your dopamine level for the next day. So you will not be as motivated to do stuff on the next day. Artificial lights are not very good and if you have some light, it should be behind your eye level, for example.

23:45

Alexey

**Behind your eye level? How does it actually…? I'm sitting right here. This is my eye level. I'm pointing at my eyes. I need to put something right here, like a small lamp below my eyes. So maybe near my laptop, where I do something?**

24:04

Ruslan

Exactly. At any point of time, if you want to use some light, it should be below your eye level, so that you would need to look down on it and not up.

24:15

Alexey

**It should not be strong.**

24:17

Ruslan

Yeah, it should be very dim. Interestingly the candle or the fire, they don't produce the same effect. Because I think our bodies adapted to candles and fire so far – but not to artificial light.

24:30

Alexey

**So it should be a lamp? An LED lamp or a regular light bulb?**

24:36

Ruslan

Yeah, but just not a bright one.

24:38

Alexey

**Should it be white light or yellow light? Or it doesn't matter?**

24:42

Ruslan

As far as I know, it doesn't really matter, even though I've heard about blue light being a bit more negatively affecting dopamine and the whole cycle. But as far as I understand – no, it doesn't really matter. I think the biggest problem we have is not about the lights and lamps, but it's about phones. A lot of people go to bed with their phones, myself included, and they will have high brightness. That is definitely not good for having a healthy, long sleep.

25:13

Alexey

**Do you have any recommendations on when we should put away our phone? How long before going to bed?**

25:22

Ruslan

I would say that if I'm going to bed at around 12 or 11 – after 8, I should not have a lot of light. If I try to follow the natural order of things where the sunset would be around eight o'clock, then maybe after that we do not want to get a lot of exposure to bright light.

25:42

Alexey

**What about the phone? I would just decrease the brightness on my phone and keep using it? What do I do with this?**

25:50

Ruslan

Yeah. I usually put it on the minimum brightness.

25:54

Alexey

**I think for me, it's the default level sometimes during the day – I just cannot see anything.**

25:59

Ruslan

But during the day, it's okay to have a bright light. It's good to have a bright light in the morning. I just think about it like – having a lot of light is healthy for you and then as you get closer to the evening, just have less light and that's fine.

# Daylight lamps and using light to wake up

26:14

Alexey

**There is a question from Lisa, “Have you tried out daylight lamps? Can you recommend any? My apartment is quite dark naturally and I was wondering about those daylight lamps?”**

26:26

Ruslan

Yeah, I didn’t. I haven't tried any. [cross-talk]

26:28

Alexey

**What is a daylight lamp? Do you know?**

26:31

Ruslan

Yeah. As far as I know, it's a lamp that's strong enough and that can imitate natural light pretty well. They use it in Scandinavian countries because you can have a time in the year when it's very dark for a long period of time. That's how you could kind of imitate the sun. I haven't used it, but I’ve only heard good things about it – that it really helps. I also heard of an alarm clock that actually does not make the sound, but rather it makes it bright in the room, so it's easy to wake up. Lisa, if you can maybe tell me later how it is. That would be great.

27:08

Alexey

**I don't like using alarms that make a sound to wake up. I use the vibration on my bracelet. Is this a good way to wake up?**

27:19

Ruslan

That I don't know, to be honest. I can tell you that light is definitely a good way to wake up.

27:24

Alexey

**This is how you wake up?**

27:25

Ruslan

Yeah. I also tried to time my sleep so that I would sleep like seven and a half hours, or nine hours. I've been doing it for years since my high school days. Because we have good times to wake up and not-so-good times to wake up since our sleep goes in cycles. We start with light sleep and then we go into deep sleep. So I would usually just time my sleep and wake up in between the cycles because it's the easiest.

# Sleep cycles

27:50

Alexey

**So we talked about meditation, we talked about light, and you said that sleep is the foundation of everything. We also probably need to talk a bit about that. It looks like you put quite a bit of effort (or at least it looks like that to me) to plan your sleep. You said “Okay, I need to sleep at least this amount of time or this amount of time. That means that if I want to wake up at seven o'clock, I need to go to bed at this time.” That's how you do it?**

28:20

Ruslan

More or less, yes.

28:21

Alexey

**Can you walk us through the process?**

28:23

Ruslan

Yeah. Again, I'm not an expert here. When it comes to sleep cycles, I mostly speak from my own experience. But I've noticed that – generally, the foundational knowledge is that – when we go to bed and we fall asleep, we naturally have a very light sleep, so we can easily wake up. Then, as time goes by, we will go into a deep sleep. Our heart rate is lower, we have slower breathing, and so on. Then, we stay in deep sleep and then we go back to a very light sleep. We have a phase that's called the Rapid Eye Movement phase, when the blood pumps in very quickly, we breathe a lot, and we're ready to wake up. This whole cycle – from going to light sleep, to going into the deep sleep, and going back, for me, takes 90 minutes. But I noticed, for example, that for my partner, it's a bit longer. [chuckles]

So if it's a 90 minute cycle, that means I can sleep for one and a half hours, three hours, four and a half, six, seven and a half, or nine hours. And I noticed that it's better for me to sleep, one cycle less than to sleep a cycle and a little bit more. For example, if I have the option to sleep eight and a half hours or seven and a half hours, I would rather choose seven and a half because then I would wake up in between the cycles and I'll feel good. My body would be ready to wake up. As opposed to waking up in the middle of the cycle – in a deep sleep – and I would feel sleepy the whole day. So that's another little productivity tip I'm using.

30:11

Alexey

**Do you actually put any effort in planning this or does it happen naturally for you now?**

30:16

Ruslan

It's pretty easy, to be honest. I usually go to bed around the same time

30:20

Alexey

**Seems like too much planning for me. In the evening, I'm tired and I just go to sleep. Then I have to think “Okay, now I need to wake up at seven.” So just put my alarm clock at seven, or eight or six, or whatever time I need to wake up. And that's it. Otherwise you need to calculate, “Okay, now it's 11, and I need to wake up at six. When do I need to wake up to feel good?” And then you start calculating all these sleep cycles. It's evening, you're tired…**

30:51

Ruslan

I think if you really want to give it a shot, calculating seven and a half hours or nine hours is not that difficult, Alexey. [chuckles] [Alexey laughs] It's just like one mental task that takes less than a minute.

31:03

Alexey

**Okay, so say you want to go to sleep now and you expect that in 10 minutes, you will fall asleep. Then you just take the time now plus 10 minutes, and then at seven and a half hours to that time. This is the time that you set up on your alarm clock. Right?**

31:18

Ruslan

Yeah, exactly.

31:19

Alexey

**What if you wake up during the night?**

31:22

Ruslan

Oh, that happens sometimes. Then I would, again, try to just fall asleep. Maybe meditate a little bit and calm down. Breathe some fresh air. Because if it's very stressful – sometimes I could wake up at like five. It happens. And it's okay. I would just try to go back to sleep.

31:43

Alexey

**But do you go to your alarm clock and adjust it?**

31:47

Ruslan

I think so. Yeah.

31:49

Alexey

**How do you know if you will fall asleep now or in half an hour or in one hour?**

31:54

Ruslan

I don't know. I mean, it doesn't really happen that often. And if it does, try to minimize the light in the night and maximize light in the morning because it will set you up for proper sleep in the next few days.

32:06

Alexey

**And by “minimizing the light during the night,” you mean to not look at your phone? Otherwise it's probably dark anyways, because it's night.**

32:17

Ruslan

Yeah, but I mean before you go to sleep. Because usually, what I’ve also noticed, is that if you have a proper light “diet,” let's call it – a lot of light in the morning, very little light in the evening – it will usually only show itself only like one or two days later. It's not an immediate effect. It's something that our body needs to adjust to. So if you have these cases very often, where you wake up in the middle of the night, just try to have a lot of light in the morning next day, a little light before going to bed, or almost no light, and see for yourself – maybe it will improve.

# How nutrition affects productivity

32:58

Alexey

**Speaking about diet – the typical one – another question we have is, “What about changes in your food intake. For example, do you have any special food that supports your concentration and energy levels?**

33:09

Ruslan

Well, I can share what I've learned about myself so far. Yeah, exercise and nutrition is a very, very important topic as well, because it's proven again and again that it helps with focus and productivity. Plus it generally feels good to exercise. It’s a very healthy thing. It improves your cardiovascular disease risk, your blood circulates better, so you can do everything better. What I am doing in particular, is that I try to have enough protein.

Protein is like a building block – amino acids that create muscles and a lot of other important tissues in our body. Also, protein boosts dopamine as well. So what I tried to do is, first of all, I was tracking calories and I was tracking how much protein I was taking in every day – for almost a year now. I'm not doing it, for the record, for the last month or so. But I was doing it before. I noticed that having a high-protein breakfast helps me to stay productive for the whole day.

34:17

Alexey

**Can you give us an example of a high-protein breakfast?**

34:21

Ruslan

Sure.

34:22

Alexey

**It's like a piece of meat?**

34:23

Ruslan

Well, meat… I don't like to eat meat for breakfast, but I eat cottage cheese.

34:28

Alexey

**Cottage cheese.**

34:29

Ruslan

And then Greek yogurt is also high in protein. You can have some nuts, you can have eggs, for example. Soy and stuff like that also have protein.

34:40

Alexey

**What about cheesecake? Is it a good breakfast?**

34:45

Ruslan

I don't know about that. [chuckles]

34:48

Alexey

**[laughs] There’s protein too, right? It has cottage cheese in it.**

34:51

Ruslan

Yeah. I mean, I think it's okay. I think you can actually eat whatever you want. And if you have a weight-loss goal, then just make sure you eat less calories than your body actually burns. Then you will lose weight. Then having cheesecake for breakfast, I think is also fine.

35:11

Alexey

**Because it helps with dopamine too, right? Not only the protein part, but I guess the sugar part contributes more to that.**

35:19

Ruslan

Yeah, that's true. This thing about biohacking, for me, is a lot about dopamine and how to manage it. I would rather try to get dopamine from solving bugs than from eating sugar.

35:34

Alexey

**Why?**

35:36

Ruslan

Why? Because, first of all, I think it's kind of a bug in our system.

35:42

Alexey

**It becomes addictive, right? You get used to these dopamine shots from eating sugar – and it's easier.**

35:49

Ruslan

Exactly. I mean, social networks are so addictive because they also trigger our dopamine. That's why a lot of people procrastinate and watch YouTube videos or spend time on TikTok forever – because it's an easier way to get dopamine. Having moderation in these things actually helps you to stay focused on what you really want to do and what you care about.

36:14

Alexey

**What do you think about protein shakes? Are they good?**

36:17

Ruslan

It depends on the shake, I guess. I am using one from time to time and it's pretty good. It's certified and stuff. I'm also a big fan of protein pudding.

36:31

Alexey

**Protein pudding? What is protein Pudding?**

36:33

Ruslan

Protein pudding is a pudding.

36:34

Alexey

**With protein? [laughs]**

36:36

Ruslan

With protein, yeah! [laughs] It has low calories, but a high amount of protein. And it's pretty good. I eat that, for example, when I see that I don't have enough protein for the day. It helps me a lot as well.

36:52

Alexey

**I’ve heard somewhere that eating rice makes you sleepy. Did you ever notice anything like that?**

36:58

Ruslan

Yeah. Recently, I just figured out that the biggest killer of my productivity is lunch. [chuckles] So I'm actually trying to eat either nothing or very little for lunch. Then, I see in myself that I can do more, and study better, and stay a bit more focused – so that I can eat better later in the evening. I don't know the specifics exactly, and I don't remember them, but if you have a heavy meal, your body needs to process it – to transform it into energy.

37:29

Alexey

**So It's not about rice, but food in general.**

37:32

Ruslan

I think so, yeah.

37:34

Alexey

**So I guess don't eat a lot of food for lunch?**

36:36

Ruslan

Yeah, but rice is also carbohydrates, which has sugar. It takes our body resources to transform it. The whole process is a bit complicated, but basically, after you have a lot of sugar stuff, you have a sugar drop in your blood as well. That's where you feel a little bit slow and fatigued and tired. That could be related to rice.

# Measuring productivity

38:07

Alexey

**I don't think I've ever measured that. I just eat rice and then… I don't really know if it's the rice that contributed to my low energy level or a lack of sleep or a lack of sun or whatever. Maybe we can talk about these attribution models. How do you actually know that the thing you're doing – the diet that you have – actually contributes to your productivity or if it’s something else? How do you know that? That's the science part you mentioned at the beginning, right? You just believe it.**

38:43

Ruslan

Well, when it comes to weight loss, for example – I was measuring myself all the time and I was weighing myself every single day. I was also taking pictures. So I could just see if it works or not based on data. When it comes to productivity, it's a little bit harder to track. I know that some people have apps that ask you, “How are you feeling today?” So you can just have logs. You can basically give different ratings for yourself “Five stars. I feel amazing! I can win the whole world!” or something. Then another day you just feel low. I haven't been tracking that in terms of productivity, but I have self-awareness. Sometimes I can just see that I did a lot today and it was a great day. That's how I track it myself.

39:30

Alexey

**But how do you understand what actually contributed to having a good day and doing all the things during the day?**

39:37

Ruslan

Well, I see if I introduced a new habit, for example. Last year, I had a lot of migraines and I have theories about why my migraines happen. I had logs every day about whether I had a migraine or not. If I did have migraines, I would write down why it might have happened. So I know just going for walks, for example, and taking breaks from my screens, helped me to have fewer migraines. I don't have an ultimate productivity tip on how to track your productivity levels, but I think you can just assess it yourself by tracking.

40:16

Alexey

**Okay. I guess the main point here is that you just need to somehow capture this data – track this data. If you don't, then you don't really know what is helping.**

40:30

Ruslan

That's true. I think that's accurate.

40:34

Alexey

**For data scientists, this sounds natural, right? [Ruslan agrees]. It's not as easy as collecting clicks on a website, right?**

40:44

Ruslan

That’s true. When I was doing weight loss and counting calories, I had to measure everything I eat or estimate it. That was a lot of effort. But you know what? We get used to stuff. If you have some routines and if you think it's really important for you, checking it and calculating how much time it takes, is not really such a big effort. We are putting in so much more effort for so many other things. When something becomes a habit, you don't really think about it, you just do it. So that's also the power of habits.

# Examples of unsuccessful biohacking attempts

41:16

Alexey

**I'm curious, were there any things that you tried, but you think they didn't help?**

41:24

Ruslan

Yeah. For example, intermittent fasting. This is a thing that helps to stay alert. If you want to study and you want to learn something, you need to be alert – fully awake.

41:36

Alexey

**Intermittent fasting means that you do not eat for a couple of days?**

41:40

Ruslan

No, it means the following. If you take 24 hours in a day, it means that let's say for 18 hours (most of the day) you don't eat, and then you only eat within one window of the day.

41:52

Alexey

**You eat once per day, basically.**

41:54

Ruslan

You can eat once per day or twice per day, but only in those four hours, or six hours, or eight hours. So I tried that, for example. I tried it for two weeks, which I think is long enough. And I just noticed that I had headaches – it just didn't work for me. Maybe I should’ve stuck to it a bit longer, but I haven't. Maybe I'll give it another shot, but…

42:13

Alexey

**But if you have headaches, it kind of makes it difficult to stick to it longer.**

42:16

Ruslan

Yeah, exactly. That's why I didn't. [chuckles] And I think that's also okay. Not everything has to work for you. Have you tried any of the stuff I mentioned?

42:30

Alexey

**Me? No, not really. Well, I tried cold showers once or maybe twice. I did not like it. [laughs] Sometimes you go to LinkedIn and you see posts like, “I wake up at 5 am and then the first thing I do is get in a cold shower. Then I run. Then I spend time with my family and I feel so awesome. Be like me. Be awesome, too.” And I think, “Okay, maybe I should try cold showers, too.” [chuckles]**

**I just don't… I don't know. It’s not for me, I guess. It's just too cold. As for the other things? You also mentioned sleeping cycles. I don't think I tried that. Light? Definitely not. Yeah, I don't think I tried anything out of what you mentioned. It’s a lot of things to try.**

# Stoicism, voluntary discomfort, and self-challenges

43:25

Ruslan

Yeah, the thing about cold showers and some other stuff that clearly gives you discomfort. I think I am actually a bit biased towards trying such things and limiting myself. Maybe it's also related to stoicism, and this idea of voluntary discomfort. We have so many things around us nowadays where you can just eat sugar and sugar and sugar and have dopamine all the time.

It's good to just sometimes stay away from it, to scientifically reset your dopamine levels and have a weekend without dopamine. Or just to take some things that you like about life away from yourself, just to see how it is without it. I just personally like… [cross-talk]

44:12

Alexey

**Why would you do this? [laughs] I don't know, if you like cheese, you just go, “Okay. Let's see how life is without cheese.”? Then you do this for one month and then you realize that life sucks without cheese and you start eating cheese again?**

44:25

Ruslan

I don't know. I like the idea that I can actually overcome difficulties in my life.

44:33

Alexey

**But you artificially create them, right?**

44:35

Ruslan

Yeah, sometimes. Just to test myself. I mean, I like different challenges. I had a month without sugar last time. This month, I'm doing a month without carbonated drinks, for example. Because I like carbonated drinks. [chuckles] This kind of stuff is fun for me sometimes. I do it just for fun – to test myself. But I imagine that it can be boring or cause discomfort.

45:01

Alexey

**So if I want to see the effect of cold showers, for how long do I need to take them and overcome my discomfort?**

45:12

Ruslan

As long as you want. [chuckles]

45:14

Alexey

**But if I don't want to? [chuckles]**

45:16

Ruslan

Then just don't do it. [chuckles]

45:19

Alexey

**Okay, it's that simple.**

45:21

Ruslan

Yeah. I mean, nobody is forcing you to do any of this, right?

45:25

Alexey

**But what if I want to be productive like these people on LinkedIn?**

45:29

Ruslan

I think you should be as productive as you want yourself to be. I wouldn’t set my goal to be somebody else, but just see yourself and where you want to be in what you want to be, and then just work towards that. I think that's a bit healthier and more sustainable way.

# Biohacking risks and ways to prevent them

45:47

Alexey

**Are there any risks of biohacking?**

45:52

Ruslan

Yeah, I guess. As I said, I'm not willing to try any stuff, for example, related to drugs and medicines, that haven't been tested on humans. But a lot of people do a lot of self-experimentation. I'm not doing that, because I think I would rather do something that's safe and feels a bit more natural in the beginning. And then if I see that I want to do even more then I would go for something else. The stuff that I talked about – looking at the sun in the morning, is pretty safe. Measuring how much you sleep is also pretty safe, because you should sleep enough – more than seven hours and more than eight hours. Eating less sugar is also pretty safe and eating enough protein as well.

46:41

Alexey

**Depends on how much you already eat.**

46:42

Ruslan

Yeah, of course. Try to be cautious about what you do and try to find like literature or some credible sources that will tell you if it's healthy or not. Consult with your doctor if you're not sure about something. Some people have conditions, for example. Intermittent fasting doesn't work on some percentage of people because they have some conditions. And it might be even dangerous. So it's good idea to check with the doctor.

# Coffee and tea biohacking

47:12

Alexey

**What do you think about coffee and tea? Are they helpful for productivity?**

47:18

Ruslan

Yeah.

47:19

Alexey

**Would you consider having a cup of coffee biohacking?**

47:22

Ruslan

Yes, coffee helps to increase alertness and remove sleepiness because it blocks a receptor of the hormone – I cannot recall the name right now. But it helps you to be less sleepy, basically. The only issue with coffee is that it can, again, reduce sleepiness and you will not fall asleep well, so it would mess up your sleep cycles. The general recommendation is not to have coffee after 2 pm or maybe after 12. I think everybody is different in how sensitive they are to one thing or another. When you hear things like, “Sleep at seven and a half hours,” for my girlfriend it might actually be eight. I can drink some coffee at 3 pm and I'll be fine, but for some other people that could even be 4pm or 2pm. I think coffee, generally, is not bad. It's a good stimulant and it can help you.

# Using self-reflection and tracking to measure results

48:21

Alexey

**We have quite a few questions, so maybe we should go through them. One interesting one is, “How do you measure productivity?”**

48:29

Ruslan

As I said, I'm not that good at measuring my productivity. [chuckles] I can just self-reflect at the end of the day, “Did I do a lot or not?” And that's how I do it.

48:40

Alexey

**Open a spreadsheet, and then for each day write, “Did I do a lot? Yes, no?” [Ruslan agrees] “I did a little, I did a moderate amount, I did a lot,” right?**

48:52

Ruslan

Yeah. I had this dashboard for myself in Notion, when I would write down all the habits that I was trying to learn. I was also tracking if I had a productive day or not. But again, I didn't really stick with it. I'm pretty sure there are apps that you can use to track your productivity. I think I would rather just look at my general feeling. “Did I feel productive or not? Did I have a lot of distractions or not? Could I stick to what I was doing or not?” For me, that's enough.

49:27

Alexey

**Just curious, what were some of these habits in your Notion document that you wanted to try?**

49:35

Ruslan

Well, I can look it up, but it was definitely doing sports, drinking water, and walking certain number of steps a day. Because I was sitting a lot and I tried to go for walks more to just move my body. So I was checking that.

49:56

Alexey

**So just the simple things and then in your Notion, you would note that, “Okay. This day I walked my target level of steps and I felt good,” or whatever. Right?**

50:07

Ruslan

Yeah. I think also measuring stuff you want to change. Obviously, it's important. If you can't measure it, you cannot change it. I think measuring it not necessarily externally somewhere, but just in your brain, “Did I feel productive?” is enough for some things. But when it comes to habit tracking, I think this is a really powerful tool. If you can tie your results to some particular things – in weight loss, it was tremendously helpful for me. I would recommend you to do it. Again, it might seem like it's some work, and we might feel lazy about it, but if you think, “I really want to do it. I really want to change it.” Then it doesn't feel like much and you can get used to it pretty quickly.

# Mindset shifting

50:51

Alexey

**Actually, you mentioned this “voluntary discomfort.” So if you're okay with creating artificial challenges for yourself and having fun while doing this, I guess it's also a mind shift, right? [Ruslan agrees] [cross-talk] “Now I’m taking away sugar. Let's have fun.” Even though life without sugar might be a bit more sad.**

51:15

Ruslan

Yeah. This mental model of, “I'm going to be good and feel good no matter what. If there is a challenging or risky thing, I'm just going to take it like a champ,” as I say, or just trying to have fun with it. It's actually a really powerful tool. Also with the dopamine and with sugar and everything, it's usually our perception of things that matter, but not the exact amount of things that we take or we do. The perception is really, really strong. That's how our brain really decides if we… I’m talking a bit in the abstract, but I hope you get what I mean.

51:51

Alexey

**Yeah. It's like staying positive no matter what, even if the world is collapsing. I wonder, how do you actually do this? [chuckles] It's difficult. When you see that not everything is going according to plan, and life happens, how do you actually see things in a positive light? How do you focus on the good things?**

52:17

Ruslan

I think I wouldn't give advice to stay positive even if the world is ending. [chuckles] I don't think it's good advice.

52:23

Alexey

**Maybe I misunderstood you. It was the wrong conclusion. How did you say it? Do you remember?**

52:30

Ruslan

I would say, “Just be thankful for what you have and build on top of that.” Because there's always going to be something really, really big and bad, or small and bad. But there also can be good things. I'm trying to be thankful for what I have and then build on top of it, no matter how bad it is.

52:52

Alexey

**Okay. That's the stoicism part you mentioned, right?**

52:56

Ruslan

Yeah.

# Stoicism book recommendation

52:58

Alexey

**Can you recommend any books on stoicism – on how to do this mindset shift?**

53:06

Ruslan

Yeah, there's Meditations by Marcus Aurelius, I believe, who was a Roman Emperor. He was a very vivid stoic. And that's pretty cool. Even though he was an emperor… [cross-talk]

53:20

Alexey

**That’s quite an old book, isn't it?**

53:22

Ruslan

Yes. It’s like a thousand years old, but still very relevant. Surprisingly.

53:29

Alexey

**Interesting.**

53:30

Ruslan

I think it was Marcus Aurelius who wrote Meditations. I'm not sure now. But yeah, Marcus Aurelius and Meditations. It could be and/or – that's very good.

# Work/life balance

53:45

Alexey

**Another question, “How do you manage your time between professional and personal daily life as an engineer?” I don't know if there “as an engineer part” is important here. But, how do you do this?**

54:01

Ruslan

I want to say I manage it pretty well. [chuckles] I try to make a distinction. I try to have a work/life balance. For example, I also want to learn some stuff besides the job. I think it's important for me to realize how much I want to do something and if I really have a desire to do it. And then if I do, then I will always find time and energy to do it. If you want to ask how you should manage your normal life and like work life, just have a distinction first, and see what your priorities really are. I think, last year, or the year before, I wanted to focus on five things in life and just nothing else – nothing else would bother me.

There are so many topics that I always wanted to dive in to – I could make a list of like 60 of them – but only five of them really mattered. That was for example, being with my friends and family more often, talking to them, or going for walks, doing sports, nutrition, and being productive at work and reaching my goals. So I would only focus on those and not try to do everything at once. If you feel blocked and that you cannot manage everything, try to find something that you can manage and just build from that.

55:21

Alexey

**At the beginning of this interview, we talked about perfectionism. You said, at the beginning, that you managed to overcome it – to accept that it's okay to not be perfect. The question we have is, “How did you change your mindset to overcome perfectionism? Because it's super hard for me.”**

55:44

Ruslan

Yeah. I would say that to overcome perfectionism, you need to understand two things and really accept them. First, accept that nobody's perfect and accept that you are not perfect and that it's okay. Accept yourself as you are, and accept others as they are, and see your own path in life.

56:12

Alexey

**It sounds simple, but I guess there is more to that than just “Okay, now I accept it. Now my life is different.” Right? So how do you actually accept it? Is it like the meditation path that you mentioned at the beginning?**

56:23

Ruslan

No. I think it took a psychologist to work with me in order for me to accept these things and to understand them deeply. One exercise I did that really helped me, I think, is looking at my past self and my future self and talking to myself, like, “What is the advice yourself as a five-year-old? Or as a 15-year-old? Or 30? Or 45? Or 50? And so on? How would you talk to yourself? If you look at your old pictures, would you tell yourself that they are not perfect? You did this painting, but it's not perfect?” No, you just really accept yourself when you're young. You have kindness and love in your heart. So I think if you try to do this exercise, look at your old pictures. It's really, really powerful. It definitely changed a lot for me.

# Ruslan’s biohacking resource recommendation

57:23

Alexey

**Another question is – I was going to ask this question anyways, but since it's coming from the audience, “Which book would you recommend to learn more about biohacking? Anything special for data scientists or ML engineers by any chance?”**

57:37

Ruslan

**Yeah, I would recommend not a book, but the podcast, and it's called Huberman Lab Podcast by Andrew Huberman. It has a lot of episodes about pretty much everything. Or a lot of things related to the healthy workings of mind and body and hormones, and what behaviors and protocols you want to do for that. I'm a big fan. Most of the stuff I learned was from him, even though I was also reading some other books. If I would just recommend one thing, it would be this for sure.**

58:08

Alexey

**Okay. Please give us a link. It's Huberman Lab, right?**

58:13

Ruslan

Yeah. Huberman Lab. I, as a data scientist, was mostly interested in learning in the beginning, “How do I accelerate my learning?” and so on, “What does the science know about learning this?” and all of the other things. That's how I started watching the episodes and fell in love with the whole topic, and then I extended it to more areas, like the body and stuff.

58:38

Alexey

**You can also maybe send us the list of your top three or top two, or the single most favorite episode.**

58:48

Ruslan

Yeah, sure. I have them in mind already, so I will.

# Conclusion

58:53

Alexey

**Good. So we will include that in the show notes. I think that's all we have time for today. We actually wanted to cover a lot more. That was quite ambitious. But that was fun. Thanks a lot for joining us today. Thanks for sharing all these tips and talking about your story. I have a lot of notes. Thanks for joining us today.**

59:16

Ruslan

It's my pleasure. I really hope that even though some of these things are obvious, they actually can help someone to have a better life. That would make me happy.

59:25

Alexey

**Yeah. I will need to think about how I can have more daylight in the morning. That's a key takeaway, I guess, for me. Yeah. Thanks for this discussion. Thanks, everyone, for joining us today and I guess that's it. Have a great day, everyone!**