

NAME

Benefits of failing.mp3

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DURATION

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5 SPEAKERS

Sascha Stocker

Manu Kapur

Jennifer Khakshouri

This Wachter

Edith Schmid

START OF TRANSCRIPT

[00:00:02] Sascha Stocker

Failure is definitely a part of success, because if you don't fail every now and again, you're not pushing hard enough.

[00:00:12] Manu Kapur

Failure is becoming more mainstream, more popular, more talked about. It's trendy, it's hot.

[00:00:20] Jennifer Khakshouri

And that's why we're talking about failure in this episode of the ETH Podcast. I'm Jennifer Khakshouri and, obviously, I'm not the only one who's interested in the dynamics of failure.

[00:00:32] Manu Kapur

People don't quite understand it fully. That's something that people are attracted to. People also love stories, success stories, failure stories. Failures turned into success stories are particularly very interesting.

[00:00:43] Jennifer Khakshouri

And I hope we don't fail in producing this episode or by saying that I'm probably uncovering uncertainty as being something to be afraid of, rather than seeing uncertainty as a chance to go forward. So, should I hope that we fail in producing this story?

[00:01:02] This Wachter

No. That sounds strange. You should rephrase that somehow.

[00:01:06] Jennifer Khakshouri

Well, you notice I want to do a good job. That's why I'm trying here. But it's not about me here. Let me introduce my guests then.

[00:01:13] This Wachter

Yeah, that's maybe better.

[00:01:14] Jennifer Khakshouri

We could start with the recordings.

[00:01:16] This Wachter

OK.

[00:01:22] Jennifer Khakshouri

We're on. Sascha, please introduce yourself with your full name and what you do.

[00:01:29] Sascha Stocker

I am Sascha, Sascha Stocker, an electrical engineering student at ETH. I am currently doing my Master's and I'm also the just retired Executive Vice President of the ETH Entrepreneur Club, and I'm twenty-five years old.

[00:01:45] Jennifer Khakshouri

And already retired. Wow!

[00:01:47] Sascha Stocker

Well, retired from a student organisation, so hopefully that's not the end.

[00:01:51] Jennifer Khakshouri

As a member of the Board of the Entrepreneur Club, Sascha was involved in organising the so-called Nights in Switzerland. You'll hear more about those later. Manu Kapur is also a guest in this episode of the ETH Podcast. He's Professor for Learning Sciences and Higher Education at ETH. As a teenager, you dreamt of becoming a soccer pro. Instead, you're a professor at ETH. What happened?

[00:02:17] Manu Kapur

Great question. A lot happened. If, during my teenage years, you'd asked me if I thought I would be a professor one day, I would have just laughed at you. That was never on the cards. But life is what happens. And my soccer career ended because of an injury. And then I had to figure out what else to do with my life, including completing my studies and then picking a few jobs, including teaching. And then, by some luck and chance, I ended up doing a PhD in cognition and learning, and thereafter I've just been doing research into how people learn.

[00:02:51] Jennifer Khakshouri

Productive failure is at the heart of Manu's research. He told us failure is a trend and everyone is talking about failing and not succeeding right away. Of course, there are several layers of this. Showing all failure is, in a sense, what the Nights is all about. Telling a story about stumbling, falling, getting up and moving forward. How did talking about humiliation on stage in front of an audience all begin?

[00:03:22] Sascha Stocker

The Nights is a global movement coming out of Mexico City, where a bunch of friends started a startup and hit a rough patch. They had to close it down. And then they were really left with a lot of shame. A lot of public humiliation. And they thought to themselves, "Well, everybody's encouraging us to be an entrepreneur." But failure is a big part of entrepreneurship. And once you hit that rough patch, it's still not really culturally accepted to say, "Yes, this is a project that didn't work out. I fucked up. I might have wasted some investors' money. I might have disappointed some customers, some partners." The Nights is really about breaking that taboo, breaking that fear of failure and bringing the entrepreneurs – who will all go through this rough patch – together to talk about the things that are usually not really talked about. And I think that is the key essence of the Nights.

[00:04:21] Jennifer Khakshouri

Do you recall when you first participated in a Night in the audience?

[00:04:27] Sascha Stocker

My first experience of the Nights was one of our largest Nights in Zurich and actually, therefore, also in the world, because we, as a club, host the largest Nights in the world. It took place in Theater 11 Zürich, with almost 1,500 people. We were pretty much sold out, and it was just a phenomenal night with so many different stories and so many different things to learn that you could take away as an audience member.

[00:04:52] Jennifer Khakshouri

Which story do you remember most vividly? Which story?

[00:04:57] Sascha Stocker

The most vivid moment for me was definitely from Edith Schmid. A lot of the speakers we get, especially, when they reach the later stages of their careers, are very comfortable talking about when they fucked up 20 years ago. But for Edith it was definitely something different.

[00:05:21] Edith Schmid

It's actually a little bit ironic for me to be standing on this stage tonight.

[00:05:25] Jennifer Khakshouri

Edith Schmid is the former president of the ETH Entrepreneur Club who founded a MedTech startup that failed after three years.

[00:05:34] Edith Schmid

I'm fucking up! OK, because originally back in 2015 I brought the Nights franchise to Zurich together with the Entrepreneur Club and I actually had to laugh when thinking back because I love the concept. I love hearing other people talk about their s. I thought, why did I make it onto this stage tonight? It's so weird. But in all honesty, I think that's actually why I love the whole format, because it teaches us that s are part of all our lives. So let me tell you my story tonight.

[00:06:10] Sascha Stocker

She was just at the point of having to close down her company and go through the rubble of what was left over. And she still came. She still came on stage,

[00:06:22] Edith Schmid

I was CEO of a Swiss MedTech startup called Kenzen. We failed. I failed. We're in liquidation, and it's really hard to describe the feeling to someone who's never witnessed a failure like this before. It feels like the Earth is falling out from under you. And one thing that was especially difficult for me during that time is that I became my own worst enemy. I told myself I wasn't as strong as I thought I was. That I was a loser. I told myself I wasn't the fighter that I thought I was.

[00:07:03] Sascha Stocker

And the best part of it all was that around the time that she was on stage, the company was in ruins. But the customers, the partners, the employees all said, "Why are we giving up? Why are we not doing this again? She is actually back on her feet now running the next project." And that is what stuck with me for a really long time... of capturing that essence of, yes, you will fail. It's most likely that you will fail. But, at the end of the day, if you get up, then it was not actually a failure. It was a lesson learned. And that's what she did. And that's probably what I took away with me that night.

[00:07:43] Edith Schmid

I'm currently regaining my strength and rebuilding my identity. For now, I have to leave it up to you how you want to see me and what label you want to give me. But I can guarantee you one thing. The core team of Switzerland is getting back on its feet, and we will aim for the peak again. Thank you.

[00:08:10] Jennifer Khakshouri

In Manu Kapur's research and practice of productive failure, less shame is involved than in these stories of the Nights. It's about making mistakes at the very beginning of a process.

[00:08:23] Manu Kapur

It's about deliberately, intentionally designing for failure. The idea is if we all learn from errors and mistakes, we should not wait for it to happen. So I say, OK, let's design for failure and use that intentionally to learn more deeply. The research into productive failure started with my doctoral work at Columbia, so almost 20 years ago. And since then, there've been more than 150 experiments.

[00:08:47] Jennifer Khakshouri

And can you tell us about the research you did with students at ETH in maths?

[00:08:51] Manu Kapur

The work at ETH was a practical demonstration of how one could design for productive failure in large classes, which are typically in a traditional format of lectures and exercises. And there we implemented productive failure in a very small but surgical way before key ideas and concepts in the course. We invited students to participate in these productive failure sessions on a voluntary basis. These sessions took no more than about seven hours for the whole year. So it wasn't an overwhelming amount of time invested, but it was based on solid science. And that's why I say it's a practical demonstration of how you can create large learning effects. And we found that the passing rates of this course, which were historically at 55-odd percent, jumped to 65 in the first iteration and then to 75, and now they're hovering around 70, which is extraordinary given that, overall, the whole intervention only lasted seven hours spread over the year.

[00:09:53] Jennifer Khakshouri

A little intervention with a large impact. What exactly did the intervention look like?

[00:09:59] Manu Kapur

We designed these problem-solving exercises based on the productive failure principles the students engage in. They tried to come up with as many ideas or solutions or representations. They know that we tell them and they themselves know that they may not be able to get to the correct answer because they've not learned the concepts yet. But the idea is the more they generate ideas and solutions, the more it will prepare them, even if those ideas are incorrect or sub-optimal, and the more it will prepare them to learn from the upcoming lecture that targets that concept. That's what we did, basically.

[00:10:31] Jennifer Khakshouri

So, in a sense, it is struggling with practice to have an open and prepared mind for the theory that brings solutions. How did Manu come up with this idea?

[00:10:42] Manu Kapur

I taught mathematics to 12th graders for a number of years, four to five years. And even though I thought that I was teaching very well, and even my students said, "Yes, you're a good teacher, you put in the effort, you engage." And still, if you probed students' understanding repeatedly, you would find that their understanding was very shallow. Or it was just not retained over time.

[00:11:03] Jennifer Khakshouri

The students would study for an exam and do well in the exams. And three months' later, their knowledge for this one exam was completely gone.

[00:11:12] Manu Kapur

So, there was something in that illusion of success as a teacher that I took, on hindsight. I think I took that into my doctoral degree because I wanted to investigate how it is that after a very engaging, well-structured, clearly explained lecture, students still do not understand things deeply.

[00:11:34] Jennifer Khakshouri

Because Manu wanted to investigate and find out why a very engaging, well-structured, clearly explained lecture still results in students not really understanding. There must be something wrong with the fundamental assumption that you must start by explaining the correct thing.

[00:11:54] Manu Kapur

Maybe we need to completely flip that assumption and say, “Well, that can come later on, but let’s prepare the student to get him or her in a place where they’re ready to understand and learn something new.” And I think that pre-step is critical, and failure is one of the key ingredients of designing that.

[00:12:11] Jennifer Khakshouri

Manu’s idea behind his research, in a nutshell:

[00:12:15] Manu Kapur

If you don’t learn to fail, you will fail to learn, as I say.

[00:12:19] Jennifer Khakshouri

I really like this. And this one sentence – If you don’t learn to fail, you’ll fail to learn – is something that gets one thinking about the school systems. And it shifts our perception of failure.

[00:12:31] Manu Kapur

When we carry out productive failure, especially in real ecologies like classrooms and lecture halls, I think we work on the culture, we set the right expectations and norms so that when students are struggling to solve a problem, they’re not thinking, “Oh, I’m not smart enough”, they’re thinking, “Oh, I’m in the right space. This is exactly what is predicted at this point in time for me to be engaged in, and I must push through this and I must persist.”

[00:12:58] Jennifer Khakshouri

Manu Kapur sees some positive developments regarding this attitude.

[00:13:02] Manu Kapur

I think failure is becoming increasingly valorised in the general public and mainstream media.

[00:13:10] Jennifer Khakshouri

Do you live near a church? Sorry for interrupting you...

[00:13:12] Manu Kapur

Yes, it is 11 o’clock, right? Yes, there you go.

[00:13:15] Jennifer Khakshouri

Yes. Do we have to wait a few minutes?

[00:13:17] Manu Kapur

We just wait. We just wait. It’s just a couple of minutes.

[00:13:23] Jennifer Khakshouri

So let’s go back to Sascha. He also talks about a cultural shift.

[00:13:27] Sascha Stocker

Especially in Switzerland, we believe there is still a lot of cultural change that needs to happen for entrepreneurs to have a better environment in which to fulfil their dreams. If you look at it compared to the U.S., you come out of university with a couple of hundred thousand dollars in debt. And, still, these people risk it all to go for their dreams. And here in Switzerland, you graduate, you have no debt, you have a support system around you. And we still don’t see the same amount of people saying, “If I’m capable of accepting this good job offer from a great company, then I’m probably also smart enough to start my own thing and really learn as I go.” Because that’s what entrepreneurs do. And we really want to bring cultural change to the thinking that you have to be successful after a couple of years. If you’re not able to post “I’m super grateful to announce posts on LinkedIn” after a couple of months of graduating, you’re a failure. That’s what the club wants to achieve. And the Nights is definitely one of our key tools to achieve that message and get it across Switzerland.

[00:14:33] Jennifer Khakshouri

And is it easy to open the door to people when you call them up and say, “We’re from the Nights?” Are they open and say, “Yeah, we’ll come on stage right away?” Or do you have to convince them to?

[00:14:44] Sascha Stocker

Luckily, we don’t say we’re from the Nights. We’re from ETH. I think in Switzerland, it’s a bit of a different name, so that definitely helps. Funnily enough, for the speakers, it’s also a way of clearing some things up, revisiting some things that you might not be able to talk about. A lot of people are very willing to share their failures because they would have wished to have had access to that knowledge when they started out.

[00:15:11] Jennifer Khakshouri

Sascha is still a student at ETH.

[00:15:13] Sascha Stocker

I haven't set out a clear path – like I'm going to go into energy science or I'm going to go into MedTech space. There are so many things happening at the moment. There is a lot of fintech stuff going on in the crypto world. Also, I haven't set out a clear space that I want to invent in yet. With a couple of friends, we always talk about what's most exciting, what products and startups we think are very cool, what they might be missing, where we could maybe start out exploring different ideas and implementing them.

[00:15:51] Jennifer Khakshouri

Knowing that the road will be bumpy, are you more fearless than you would have been without the knowledge of the Nights?

[00:15:58] Sascha Stocker

I wouldn't say more fearless. I would just say you have a better understanding that it will happen, and the best thing is to prepare for it in the worst-case scenarios. But, at the end of the day, you can't avoid failure. You will hit something that is not going to work out. You will make some mistakes. And that's OK.

[00:16:20] Jennifer Khakshouri

That's how Manu Kapur sees it, too.

[00:16:22] Manu Kapur

Failure is trendy and failure is necessary for learning. But it is not failure that you target. It is trying things that are beyond your current skill set and expertise, and trying new things and having an openness to this experimentation, and so on and so forth. To learn from failure in life, we need to find ourselves – not every time, but if we really want to grow, time and again, we need to put ourselves in these growth zones where we are going to struggle, where it's going to be challenging and then have the knowledge that, well, research backs it up. So it's not just a great idea, it's a trending idea, jumping on the bandwagon. But 20 years on, we understand why it works and how it works. So you just need to be in that zone. And failure would automatically happen, and then you must have the confidence as you go through it multiple times that this is how you grow.

[00:17:18] Jennifer Khakshouri

Manu's growth zone is at home - with his toddler.

[00:17:22] Manu Kapur

I have an 18-month-old and I fail every day trying to figure out what exactly he wants or what he's trying to communicate. So we are at that zone where he's babbling and learning to speak. And it's just, you have to go through a lot just to figure out, "OK, that's what you want!" "Oh, OK, that's what you don't want!" So that's my life right now.

[00:17:44] Jennifer Khakshouri

I can relate to that. And it's comforting to think failing with my kids doesn't have to be so bad for them and for me.

[00:17:53] This Wachter

Oh, really? Is this your last sentence in this story about your family?

[00:17:57] Jennifer Khakshouri

Well, isn't a family like a little enterprise? Like we're all entrepreneurs with our kids. You should know, too. But, OK, we can use a quote from Sascha for the ending about entrepreneurship.

[00:18:14] Sascha Stocker

So there will definitely be some things that you will miss, things that you will not implement correctly. And therefore you will fuck up, you will fail. And it's an iterative process that will sometimes hit you when you find yourself at a dead end. You have to figure out a way to get back on the road that leads you to the proper exit.

[00:18:33] This Wachter

Yes, that's the proper exit for this story.

[00:18:37] Jennifer Khakshouri

This is the ETH Podcast, and I'm Jennifer Khakshouri. I produced this podcast together with This Wachter and Luki Fretz from the audiobande. If you like our podcast, recommend it to your friends and share it on social media. Thanks for joining us.

END OF TRANSCRIPT

