

## Transcript - Tom Chatfield - How can we think more critically at work?

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# Transcript

Nathalie 00:07

Hello, you're listening to the Future Talent Learning Podcast, developed to help you build your leadership and management skills. I'm Nathalie Nahai.

Ross D 00:16

and I'm Ross Dickey.

Nathalie 00:17

And this week we are asking how can critical thinking help us at work? What are the benefits of thinking critically and how can we create a work culture that allows for better critical thinking in our teams?

Nathalie 00:30

So just the small questions. To answer some of these we are speaking to the brilliant author and tech philosopher Tom Chatfield. He is a prolific writer, a fascinating thinker and his recent books include *How to Thrive in the Digital Age*, *Live This Book* and most recently *How to Think*.

Nathalie 00:49

There are other current projects underway also. So let's start with the big question. How are you doing Tom?

Tom 00:56

I'm very well, thank you very much.

Nathalie 00:59

And how are you Ross?

Ross D 01:01

Well, I've also very well thank you, naturally. So, nice of you to ask.

Nathalie 01:04

Well, I'm glad to hear it. How are you? So, I'm great. Very excited about all this critical thinking. What do we actually mean by critical thinking? Let's start there.

Tom 01:14

Right. So when we're talking about critical thinking, the word critical can sound very unfriendly and it can create the idea that what you're doing is criticising people and having a go at them and putting their backs up.

Tom 01:24

But what it really means is we're just thinking about thinking itself. And in particular, we're thinking about the ways in which are naive or everyday thoughts, maybe flawed or biased or limited. So we're really trying to constructively address some of the limitations in how we think about the world.

Tom 01:46

And I guess there's two broad categories that I find it useful to divide this into. So first of all, we can talk about our cognitive limits. So we're very familiar these days, I think, with the ideas of bias, of confirmation bias and so on, where unless we're careful, we tend to seek out information that flatters us, that confirms things we'd like to be true rather than testing ideas.

Tom 02:11

But then there's also equally importantly, engaging critically with the limitations and strengths of external resources, the systems we use, computers, the data, the books, the media, and so on. And so between these two things, I guess, there's a whole bunch of tools and techniques from a variety of disciplines, philosophy, social science, even mindfulness, that we can use to try and get a more accurate view of the world, to try not to fall prey to in sort of predictable limitations and distortions

in the way we think about things.

Nathalie 02:55

Brilliant and very concise. And I'm wondering when we're thinking about the biases that come up at work, obviously there's kind of general biases to which we can afford prey. There's also cultural, social biases.

Nathalie 03:06

And my mind immediately goes to issues around how we divide difference and name difference in people, whether that's race, gender, sex, age, ability, et cetera. And so with that in mind, why is critical thinking important at work?

Nathalie 03:21

And I imagine this might be on multiple levels, but yeah.

Tom 03:25

So, I've been lucky enough to, you know, both write a lot of books by critical thinking and also be, I guess, faculty at the business school in Oxford and work as a non-executive director and board advisor.

Tom 03:37

And a bubble for me, I guess, critical thinking really shows its strength when you're trying to work out what questions you should really be asking and make sure you're not answering the wrong questions.

Tom 03:52

In other words, it helps you engage with reality, with the way things really are, rather than with a sort of little snapshot of reality that seems accurate, but in fact is deceptive and distorting. So, to give you a very simple idea about that, I talked about confirmation bias.

Tom 04:10

And I think most people have heard of this. It's a very obvious idea. It's just much easier in a cognitive sense to look at some data, to go online, to talk to people, and to find information that fits in with the worldview you already have.

Tom 04:27

To some degree, when you type a term into a search engine, unless you're very careful, you're kind of doing that. You know, if I go into a search engine and I type in, why is vaccination bad? Or why is, you know, the president terrible or whatever?

Tom 04:39

I'm going to bring up results that are other people who think like me. But in a business setting, I'm very aware of the fact that, for example, it's very easy to be in defensive mode all the time. To walk into a meeting, for example, and say, you know, here's a PowerPoint presentation, which is going to show you how my department's been doing some good things.

Tom 05:02

You know, I'm going to kind of defend the idea that, you know, we've been doing some good stuff, we've tried this stuff, we're all going to kind of talk around the assumption that I've done my very best, and so on.

Tom 05:14

And the really tricky but really important thing to do is to begin with a completely different mindset, and to say instead, actually, what I want to talk about is how we tested a bunch of ideas. You know, we thought that this particular publicity campaign would work.

Tom 05:31

We thought that this particular product would find an audience. We thought that following this strategy would lead to an increase in productivity, and I'm here to report on that a little bit more like, you know, in a scientific manner.

Tom 05:41

And I'm here to tell you that the growth didn't happen in the way we thought it would. The productivity didn't increase in the way we thought it would, that we found a different opportunity which is interesting, and that when I actually kind of tested the impact of this wonderful seeming campaign, I found that in the long term, it didn't actually boost engagement at all, even though in the short term it seemed to.

Tom 06:04

And so there's really these two different mindsets, and in one, if you're being defensive from confirmatory and sort of agreeing, you're operating in a very kind of narrow place where to some degree you are doing the very natural human thing of making each other feel better, agreeing on stuff because it's socially comfortable, and dealing with your knowns, dealing with the stuff you know and the stuff you know how to do and what you feel competent and so on.

Tom 06:29

But in the second mindset, and this is what I suppose the infrastructure of a good organisation helps and supports people to do, you're doing the much more difficult and interesting thing – testing ideas, testing theories, confessing to uncertainty and error and ignorance – and thus you're learning and iterating meaningfully and having a critically engaged relationship with your own business, assumptions, working methods, data, current state of knowledge, and so on.

Ross D 07:03

How do you create the conditions for that? And that's a really big question, I'm aware. But as you've alluded to, it's a lot more comfortable to pretend that everything is hunky-dory, or even to retrofit outcomes to the processes that you follow to say, oh, look, well, this wasn't really what I said I'd test in the first place.

Ross D 07:25

But look at this amazing thing that it's done in actuality. It takes quite a lot of trust, I think, to be able to walk into a room and admit to failures and that sort of thing. So how do you go about creating the conditions for that?

Tom 07:39

You're absolutely right. It's very hard to do. I mean, critical thinking, why do we need to study this stuff? Everyone, you know, you would think wants to be right rather than wrong, if you like. Everyone, we're all interested in principle in having an accurate view rather than an inaccurate view of the world.

Tom 07:55

But actually, we're constantly up against the fact that it can be deeply uncomfortable, as you say, to take criticism, to admit to uncertainty and error, especially position of leadership. It can be very unpleasant to admit that something you did didn't work out well.

Tom 08:15

And it can be incredibly painful. And I almost mean literally painful on a sort of emotional and personal way to face up to various kinds of failure and start again from scratch. So I think the most important way of dealing with all of this is to reframe things so that doubt and investigation are positives.

Tom 08:44

It's not failure. You know, there's the whole fail-off to break things and so on, which I think is a bit of a cliché, really. I think the nuanced approach is to say that doubt and uncertainty to be celebrated and modeled.

Tom 08:57

And you do that in two ways. You do that on a personal exemplar way and how you deal with people, and you do it in a structural way. Now, on the personal way, I think as a leader, as a manager, you modeled doubt and uncertainty by saying, I am not sure about this by practicing open rather than closed questions, saying, what do you think?

Tom 09:16

What can we learn here? So your prompts are about what are the lessons? What went right? What went wrong? What are the tests? It's this open-questioning, really scientific and exploratory way, rather than a closed, tell me why this is good.

Tom 09:32

Justify yourself. But the structural ways, I think, are much more interesting because here it's often about what you do before the meeting happens. It's about, for example, getting people in advance to express a diversity of points of view to avoid groupthink in the room.

Tom 09:51

It's about having projects and agile methodologies are quite a lot about this because they embody the idea of iteration and retrospectives. Each time you meet up, you're having a frank conversation about things that could have gone better, about things that you might want to change.

Tom 10:08

And it's part of an incremental process. I think on a sort of management level, it's putting a lot of work into the framing of debates and avoiding this kind of defensive groupthink. So by the time you're in the room and everyone feels under pressure, it's too late, you open things up broadly by letting people express their views independently of one another in advance, read and digest materials in advance and respond to kind of open rather than closed prompts and by sort of de-risking in your language descent of various kinds.

Tom 10:44

Now, you need to come out the other end with consensus. Quite possibly, you know, you can't just say, well, we've decided that there's no answers. But I think if you look to scientific research methodologies, you can really find an awful lot about framing the question in advance as a genuine question, as a test that can be passed or failed, inspiring people to gather relevant data and compare experiences, and then just engaging in a process that is comparative, that explores these things without a kind of defensive agenda before you then narrow it down.

Tom 11:19

And I guess the last thing I'd say is, you know, there's no perfect way of doing this. There's no one-size-fits-all method. But there are some great books about things like this. Danny Kahneman's book *Noise*, for example, which I think in some ways is more important than his work on cognitive bias, has some fantastic checklists in it for trying to strip noise by which he means kind of irrelevant or randomising information after decision making.

Tom 11:47

And he's a great advocate for using kind of systems and checklists and question lists to take the emotional heat out of things and get the best out of people by prompting their considered thinking analytical selves rather than their kind of defensive tribal emotional selves.

Nathalie 12:09

I really like the idea there of de-risking descent and the couple of things that come to mind when you talk about that is, on the one hand, building psychological safety so descent in itself doesn't become this kind of weapon.

Nathalie 12:21

So if you speak up and you're shamed out of it, then you're not going to be doing it again very often. And on the other hand, you know, the kind of the role of how we enculturate people. So in schools, if we're doing trials around, for instance, Dr.

Nathalie 12:34

Carol Dweck's work on growth mindsets, the idea that getting things wrong isn't a bad thing, it shows that you're going to gain new information that you can then assimilate and use and integrate to create better tests or decisions or to learn something different.

Nathalie 12:48

So I think there's an interesting thing there as well as kind of the structural stuff, which is how do we create a mindset shift upstream in young people, which I know is something that you're also passionate about, that encourages folks to be a little bit less attached to their own personal methodology and outcome and be more willing to experiment and be surprised by what they find.

Tom 13:12

Yeah, I spend quite a lot of time in schools and universities, and it's so interesting to me that if a task is framed in a pass-fail way, where your job is to play the role of a certain definition of a clever or successful person, someone who's got the answers, who sounds confident, who's got the facts at their fingertips, then almost automatically kind of performing that particular role shuts down this questioning, shuts down this constructive disagreement and dissent, and instead opens up something that's also potentially very partial.

Tom 13:57

And, you know, of course, playing a role, you can also get into playing a role of someone who's very aggrieved, someone who's really very aggressive in defending a point of view because being wrong is terrible.

Tom 14:13

And, you know, we see this online a lot. It's famously polarising to be on social media in some ways. But why and when is it

polarising? And things broadly tend to be polarising when they are portrayed as win-lose kind of status games.

Tom 14:33

Now, the question here, that is, is the status, is the victory, is the prize, personal glory to have defended your position, or is the prize you and a bunch of other people who've agreed on a collective aspiration or value coming up with something that you guys feel is good and resilient and interesting?

Tom 14:58

There's all the difference in the world between asking a bunch of students to sort of individually go away and perform a task to try and come top and win a prize and getting a team of people to research and test a question and try and come up with a bunch of interesting insights around it and then have a conversation around what they feel are the strong and the weak points of each area.

Tom 15:28

So I guess what I'm getting towards is really the fundamental difference between a kind of individualistic win-lose framing and a sort of values-led collaborative exploratory framing. And I particularly love the exercise, which goes back to the ancient world and is sometimes associated with the principle of charity and philosophy.

Tom 15:50

It goes like this. You get a couple of people and ask each of them to pick a position they strongly disagree with, and then once they've done that, you ask each of them to try and persuade, using the best arguments possible, everybody else in their group, that this position they disagree with is actually a great idea, is actually a really good idea.

Tom 16:14

You get them to really try and engage with the strongest possible arguments in favour of this thing they disagree with. And we call this the principle of charity, not because it's about being nice for the sake of it, but because it's about being as charitable as possible in an intellectual argumentative sense towards views that are different from your own, in order that you can understand them as fully as possible, in order that you can test your own arguments, and in order that you can extract as much learning from the experience as possible.

Tom 16:49

If all you do is build straw men, construct ridiculous caricatures of other people's positions, then all you ever learn is how to put on a meaningless display of status and bombast. But if instead you're really interested in why someone might think something different to you, and then a business context in why another company or a different person, why their perspective might not be yours, how the world might look to them, the more rigorously you enter into that, the more robust your own long-term synthesis of these ideas, or your team's synthesis of these ideas is going to be.

Tom 17:32

So again for me, as you were saying, it comes back to these framings of constructive dissent, of exploration, and of disarming these status games, and making the prize being less wrong, and having a richer account that you've developed and tested together, rather than the prize being that you've successfully defended your particular little patch of turf by any means.

Ross D 18:01

I'm curious just to sort of dig into that business context piece a little bit, and this possibly is a straw man, but you can see how sort of in a pedagogical context sort of setting students up with this sort of binary, either you pass this or you fail this, is not the only way to go.

Ross D 18:18

And actually you can have education that's based more around sort of experiences or values. In a business context, it's quite difficult to sort of get away from that sort of outcomes focused approach and the outcome often is making more money.

Ross D 18:34

So how do you kind of balance those two things or what would that look like in a business setting?

Tom 18:43

Yeah. So there are bottom lines in business and there are bottom lines elsewhere in education. So, you know, you are of course in a pass fail setting often, even though the process of learning might not be like that.

Tom 18:55

And I think one of the tricks is realising that a truly robust strategy is not the same as one that sort of seeks to absolutely kind of maximize particular perceived gains in the present. And also part two of that is that what appears to be a very strong strategy now in the present moment may actually not be robust and rigorous in the sort of global sense.

Tom 19:23

So for example, you may find that a particular product is doing well, that 90% of your income comes from a particular arm of your business, or that you're getting an awful lot of traction with a particular campaign or slogan.

Tom 19:38

And one way of dealing with that is to pour resource into that and is to say, well, there we are. This is the way things are. We're going to keep pumping resource into that. Now, fairly obviously, that's a very short term way of thinking.

Tom 19:52

It's very non-holistic. And I think that means that your question has to be, well, what does long-term resilience and robustness look like? And it may well then suddenly look like not being vulnerable in particular ways, not having all your eggs in one basket, not doing things in one particular way.

Tom 20:12

I think there's also very particular challenges around risk and the dangers of a siloed view. So for example, if you take one person individually in a department model who controls a budget, and you say, OK, here's a hypothetical proposition for you.

Tom 20:36

There's a particular opportunity coming up where there is a 50% chance that you will pretty much lose all your budget in this, that you'll invest in this, and it won't pay back. And then there's a 50% chance that it will actually triple your revenues.

Tom 20:57

What are you going to do? Now, a lot of people are understandably risk-averse, because the idea of standing up at the end of the year or the quarter and saying, well, I'm very sad to say that I took this particular punt and there's nothing left in my particular part.

Tom 21:13

That's obviously bad. A lot of people will be very risk-averse and they will seek to sort of have a defensive position. But if you're the chief executive, and if you have 20 divisions and you know that each decision maker is facing a version of this particular problem, it is incredibly obvious from your bird's eye perspective that you want everybody to take that punt, because the expected payoff, if there's a 50% chance of a loss and a 50% chance of, if you like, tripling the original, then the aggregate expected payoff is very substantially in the positive.

Tom 21:51

Now, this is a very simplified example, but I think it's illustrative of the fact that what's a good strategy psychologically that feels safe as a kind of one-off in the present moment can be very, very different to what is a kind of robust strategy in aggregate in the long term.

Tom 22:10

And broadly speaking, you could only know if a strategy is robust by considering the wider context, the longer term, by testing it against a lot of potential objections. And so you do this thing of widening the debate, of bringing in multiple perspectives, of not straw manning the alternatives and saying, well, look, you know, because we make 90% of our money in this area, other areas aren't worth worrying about.

Tom 22:39

But that's a straw man, because the better questions are, how much growth is there the potential for in this area? How much growth is there potential for in other areas? What are our competitors doing?

Tom 22:50

And so on, and so on, and so on. So the more broad and rigorous and inclusive the exploratory process is, the more likely you are then to narrow things down to genuinely robust long-term strategies.

Tom 23:01

And also to various forms of accountability and checking in, because there's all the difference in the world between, if you like, a test that only returns reinforcements and confirmations, you know, we've experienced some growth and some growth is good, so that's great.

Tom 23:16

And a test that can be failed by saying, we're going to try five things, and we're going to see what different rates of growth they yield. And as a result of that, we're going to learn about the potentials of growth in our area, we're going to be conducting experiments.

Nathalie 23:29

So Tom, for people listening to this thinking, okay, this sounds great. Where do I start? What are some of the specific techniques or tools that you might advise people play with and apply to improve their own critical thinking?

Tom 23:42

My favorite advice here really consists of giving people some questions that I think are powerful. And that might sound very simple, but actually it can be astonishingly hard to bring different kinds of questions into a space where you've been behaving in a certain way.

Tom 24:01

So to start off by modeling uncertainty, try to say, I'm not sure what do you think? I love this question. I love it on social media and I love it in meetings. I think it's a very powerful thing when a senior person in a room speaks up and says, I'm not sure what do you think and means it and listens.

Tom 24:24

So ask the question, listen very carefully to the answer. The next powerful question for me is, could you explain that again like I don't know what you're talking about? Could you explain that to me like I'm five or possibly six or seven, pick a child?

Tom 24:53

You can't do this for everything. But I think when something's important, just saying that again, a lot of us, this is me included, there are situations in which we just not as long as though we know, oh yeah, you know, yeah, I agree with that.

Tom 25:07

I know that this is all on the same page. I'm a clever person. I know what this thing is. Quite often, I think for every single person during the course of a business day, there will be a concept that comes up or a reference that they don't know because you're human and you can go and find out afterwards and that that's fine.

Tom 25:25

But sometimes if it's important, you can just say, okay, just pause there. Can we just talk through this from first principles? So you said we must do this. Why must we do this? You said this works in this particular way.

Tom 25:36

Just talk me through that, please. Particularly I think with communication between people with different specialisms in different areas, the quality of that communication is hugely important because, you know, successfully bringing together different people with different points of view.

Tom 25:53

You'd not have to put people in a room. They have to have a meaningful conversation. So they have to have a common vocabulary. They have to have common values. And I think the last powerful question for me is, you know, what don't we know?

Tom 26:08

What could change my mind about this? What would make this different? So for example, someone says, this is a great strategy, right? We're going to do this. And you can say, okay, so what don't we know about that that we need to know and what could disprove this?

Tom 26:29

What are the contradictions or what are the confounding factors that would mean this wasn't a good idea to do? Now that

might sound a bit complicated, but I suppose I can give an example where you can say, well, okay, we need to at this particular time.

Tom 26:48

Freeze our hiring budget because it's getting too expensive. We've got to make savings and so on. You can say, okay, that's fine. So one of the things we don't know that would make that a bad idea. Let's play this game.

Tom 27:05

You might say, well, I guess if we found that we didn't have in terms of freelancers or resources that are out there, we can't do it anymore. I guess if we found that actually a lot of people are thinking of leaving, like you're quitting because they've got better offers elsewhere.

Tom 27:27

Or maybe if we found that actually we don't want to freeze it, we want to, you know, kind of make savings, we want to make people redundant. It's not far enough. This would also be bad if it's only a stigma plaster or something like that.

Tom 27:40

The point is it's sort of these prompts to dissent, these prompts that legitimise. And then you come back to your bottom line at the end, you know, you know, where your convert your common values are, you know what the, you know, what the, you know, ultimate objective is make more money, make a saving, you've got to do that stuff.

Tom 27:57

But along the way, the same, what do you think? I don't know. What don't we know? What do we need to know? And the last thing I'd just say is that a test that can't be failed as well as passed isn't a meaningful test.

Tom 28:12

If a metric for performance or engagement is good, if there's more of it, well, you also need there to be a threshold that's bad or questionable on needs to be revisited if there's less of it or growth is below a certain level or whatever.

Tom 28:29

You know, metrics aren't the be all and the end all, but they need to be conceived as tests from which you can learn and not as confirmations from which you can draw a very globe achievement.

Nathalie 28:41

So lots to consider there. So Ross, with this little cheeky wrap up, what will you be taking from our conversation about critical thinking and applying in your life this week?

Ross D 28:53

So I think just what Tom was saying at the end there, maybe you're fighting on the fact that there's a lot of tacit knowledge within organisations. And I think often people who are, you know, if you're, if you're delivering information or presentation, it's easy not even to think about or consider that the possibility that your audience doesn't understand what you're talking about and from the audience's perspective, it's a, you don't want to be the only person in the room, it doesn't know what's, what's being discussed.

Ross D 29:20

See, sort of nod and maybe you'll look it up later. So I think what I'm thinking about applying is, is actually sort of framing discussions around, okay, I'm going to tell you something. If this doesn't make sense to you, imagine you're a five year old, would this make sense to you as a five year old?

Ross D 29:36

And if it doesn't ask me to try and explain it to you again until it's actually sort of getting to the part of the issue. So I think that's something I'm going to try and apply in my next team meeting.

Nathalie 29:47

And I think for me the crucial two words that really stuck in my head was this de-risking descent thing because if you're not able to sort of respectfully contradict someone else's ideas or arguments or then receive that kind of inquiry yourself in terms of the robustness of your assumptions and what have you, then without that fundamental first step, nothing else is going to flow from there I think.



Nathalie 30:12

Tom, what one idea would you like your listeners to remember for this conversation?

Tom 30:16

I just love uncertainty. Uncertainty and confessions of uncertainty are great. You don't have all the answers. Anyone who claims to have all the answers is lying or deluded, or both, and it's incredibly toxic for an organisation, you have someone often at the top or near it, who just isn't wrong, who isn't modelling uncertainty.

Tom 30:37

Because almost inherently in terms of the dynamics and interactions, they will be shutting down other voices, and they'll be missing all these beautiful daily opportunities to say to people, you know, in the right way, I don't know, what do you think?

Tom 30:51

Tell me more about that. That's interesting. Please explain it. It doesn't mean that you aren't a leader. It doesn't mean you're weak. It models, I think, one of the most enabling and collaborative forms of strength, and we need those kinds of strength today.

Tom 31:09

I mean, look at the pandemic response. It's been a desperately uncertain couple of years across the world, but I think one of the most powerful and valuable things that leaders can say, you know, to earn and deserve trust is, I will be frank with you, there is desperate uncertainty here.

Tom 31:29

I do not know what the right course is, or if there is a right course. What I can promise is that I will be weighing the evidence, listening, and I'll be changing my mind if the facts change.

Nathalie 31:43

What, that we lived in that world, Tom? So let's move on to our regular feature, one thing I've learned this week. Ross, you want to go first?

Ross D 32:00

Absolutely. So I have been reading *Blink* by Malcolm Gladwell, a little bit late to the party. This book came out in 2005, but for some reason I haven't gotten around to it until now. And basically *Blink* is about sort of a power of adaptive unconscious, but sort of split second decision making.

Ross D 32:18

And he uses a very, you know, as Malcolm Gladwell does, various different anecdotes to illustrate this sort of broader point. But one thing that stood out to me recently from one of the earlier chapters was I do it about the legal cases against doctors and the fact that actually medical expertise is not a good predictor of how likely somebody is to be sued as a physician.

Ross D 32:44

In fact, it's more to do with how they interact with their patients. So there was a study that looked at this. I think roughly half of the physicians had been sued at least twice and the other half had not been sued at all.

Ross D 33:00

And the researchers observed these physicians interacting with patients. And what they found was that the group that had never been sued on average spent 18 minutes speaking to their patients compared to the group that had been sued multiple times speaking only 15 minutes.

Ross D 33:20

There wasn't a great difference in the information that was being conveyed. It was just the fact that they spent more time with them, asked them more sort of open questions, shared jokes with them. And so that's one of these things where I think to come to try and shoe hard critical thinking into this, you'd assume that malpractice lawsuits against doctors were based on incompetence.

Ross D 33:40

But in fact, it's actually turns out to be more to do with interpersonal skills. Basically, you don't sue people you like. Yeah, so

I thought that was interesting. We'll put a link to Blink in our show notes if, like me, you've not read it yet.

Nathalie 33:55

And Tom?

Tom 33:56

I'm finishing writing, trying to finish writing a book about evolution and technology and so on. One thing I keep coming back to in this book is just the fact that the history of technology is not a kind of straight line where innovation happens and inexorably wins out and so on.

Tom 34:23

And that the best thing automatically rises to the surface. I've been looking at the kind of history of electrification in the 18th and 19th and 20th centuries and the wonderful ways in which people were, in retrospect, completely wrong about what technologists would do.

Tom 34:40

People thought that mass media would consist of images projected into the sky by lights. People thought that a clockwork automaton was going to play chess better than humans. Or people thought that early computer programs would have solved intelligence and language by about the 1960s, or that nuclear power was impossible and so on and so on and so on.

Tom 35:07

And I suppose what I take from this is just the fact that we're really, really bad at predicting the future. And we've done it with enormous confidence. We're so bad at predicting what's going to happen, and we are so prone to misreading our particular prejudices as universal truths.

Tom 35:31

But even though the evidence is overwhelming that this is the case, we're all doing it anyway. We do it all the time. So right about the history of technology and so on, I look around the world today and I just think there's so much confidence.

Tom 35:44

People are so confident in expressing such strong opinions about so many things and maybe about the way that everything's going to go terribly wrong, as well as terribly right. And I just think you shouldn't be that confident.

Tom 35:56

You don't have a right to be that confident. It's incredibly dangerous for you to be that confident. You're actually talking about the way you feel. You're talking about a few things you've noticed and assuming they're general truths.

Tom 36:11

So for God's sake, just say, I don't know a bit more. It comes back to my fundamental point. And I guess I'm chat to some other people. Get outside your bubble, ask some questions. I'm trying to do this.

Tom 36:26

I'm not sure I'm succeeding. Trying to have a slightly better and richer acquaintance with the present. Because pick any subject in the world, what you don't know about it is vaster than what you do by many orders of magnitude.

Tom 36:40

So you know, go and learn some stuff.

Nathalie 36:43

And on that note, the one very brief thing I learned this week was actually about going and learning stuff or the lack of doing so. I realised there is a word in Japanese, Japanese is such a rich language.

Nathalie 36:55

Tundoku, I think it is, which is basically the art of acquiring and not reading the mountain of books that you've been piling up on all these subjects about which you know, very little. So, um, although I am making my ways through my books this year, it's going quite well so far.

Nathalie 37:09

So I think that's probably a great place to leave it. So Tom, is there anything you want to mention before we wrap up? Where

can people find you?

Tom 37:17

I suppose in the spirit of critical thinking, you can Google my name should you wish to do that and find me on social media and online and get in touch and tell me why I'm wrong, what I don't know, or ask me some questions.

Tom 37:30

As long as you're vaguely nice, I'd love that.

Nathalie 37:33

OK, well, that's a wrap. You've been listening to a Future Talent Learning podcast with me, Nathalie Nahai and Ross Dickey. Our guest this week was Tom Chatfield. Until next time, bye for now.