Transcript - In Conversation with EY's Harvey Lewis – Managing talent and disruptive technology

Thu, 04/04 17:23PM · 31mins

Host 00:03
Welcome to Future Talent Learnings In Conversation podcast series, where we talk to business leaders and thinkers to uncover their perspectives about the changing world of work. This episode is hosted by Future Talent Learnings Tom Ritchie.

Tom 00:20
Today, I'm joined by Harvey Lewis, an associate partner and chief data scientist in EY's tax practice. A real-life rocket scientist with over 25 years of experience in AI, blockchain and other disruptive technologies, he's a strategist and innovator in the public and private sectors.

Tom 00:36
Since joining EY in 2017, he's pioneered the use of AI in the firm's tax practice. In this podcast, I ask Harvey how leaders can effectively adopt emerging technologies in their business. How much leaders actually need to know about AI and how automation will affect the HR function in the future.

Tom 00:56
Hi Harvey, thanks so much for agreeing to speak to us today. I thought we could start by just having a quick introduction to your career and what your role is here at EY.

Harvey 01:05
Great, thanks. Well, it's really good to be speaking to you today. I've had a fantastic career. I've spent, well, more than 25 years now working with data in one form or another. I've got a PhD in aerodynamics, which seems a bit unusual for someone who's ended up in tax at a big four firm.

Harvey 01:26
And the journey that I've taken to go from aerodynamics to here is, for me, really interesting and engaging. I've worked for small consultancies, large consultancies, primarily modeling and using data and data analytics to derive insights for clients or for the firms I've worked for.

Harvey 01:53
It's been hugely enjoyable. And one of the things I'd say about being here and my role here is I joined EY in 2017. I've got no tax background whatsoever, but I'm now working within tax, technology and transformation team.

Harvey 02:11
A lot of my friends and former colleagues have asked me why I work in tax. And I say to them, tax is one of those areas which is going to be really massively disrupted by technology. And what better than to be at the forefront of that as things go forward.

Tom 02:30
And like you've just said there, no prior history intact, so how do you go about learning new skills, or addressing new technologies, or addressing a new role, so how do you approach new things?

Harvey 02:44
So the first thing is I'm just really inquisitive about technology. I mean, I love it. So I'm a really voracious reader. I read papers, articles, books, everything that's going about AI, machine learning, about data in general, and technology in general, actually.

Harvey 03:04
So I try to keep myself up to date, and reading is one of those things which is really core to everything that I've learned. But also, I mean, especially here at EY, we have quite an unstructured, but accredited learning program called EY badges.

Harvey 03:25
So that badges program allows me to dip into different subjects and get an accreditation for those subjects. And believe it or not, I'm currently doing my AI badge. It's a platinum level badge. And people are saying, why do you need a platinum level badge when you're already working in AI at EY?

Harvey 03:48

And the thing about it is I want to do that in a way that is different. So I'm learning a new programming language to do that. I'm learning some new techniques to do that. So I'm always pressing myself forward because every day of my work here, I'm doing something different.

Harvey 04:06

It's a very varied working environment. And so I can't forecast exactly what skills and knowledge I'm going to need in six months time. So I'm just constantly trying to keep myself up to date.

Tom 04:21

And what have you read recently that's really made an impact on the way that you kind of that you've been working recently?

Harvey 04:27

Yeah, a fantastic question. And my answer is probably not something that you might expect. So I'm reading Daniel Dennett's From Bacteria to Bark and Back, which is about his theories. I mean, he's a philosopher who's looked at the cognitive functions of the brain and the way that we think and the separation of mind over matter and brain and those kinds of things.

Harvey 04:55

And one of the most profound things that I'm picking up from his book and others have picked up as well is the fact that 40 ,000 years ago, we were the same then as we are now in terms of our processing ability, our intelligence.

Harvey 05:17

But what's happened since then isn't anything to do with natural evolution. It's to do with cultural evolution. It's the language that we've had and the knowledge that we've passed on from generation to generation, which has sort of elevated us beyond the other great apes on the planet.

Harvey 05:36

And that is a really fascinating concept and makes me think really quite carefully about the way in which artificial intelligence works and what it's trying to achieve. And actually, the fundamental power of human abilities.

Tom 05:56

Well, that's one thing that I often find is you can find really relatable lessons from anything that you read or anything that you can pick up and that's something that a lot of the leaders that we speak to cite quite regularly.

Tom 06:08

So it's always interesting to hear what it is that you're actually reading at the moment. So let's touch on technology. Are organisations currently equipped to adjust as quickly as new technology comes into their business?

Harvey 06:25

So I think organisations are getting much, much better at innovation. So programs that look at generating new ideas and adapting technologies, some commercially available, some which they build themselves for those problems.

Harvey 06:42

I think most companies now have got some form of innovation mechanism which works effectively well. Where they struggle is in adopting those technologies. It's changing the culture of the organisation so that people who are accustomed to working in a particular way change their behaviors to adopt and use the technology.

Harvey 07:09

One of the great problems that I see is that even though current processes might not be quite as efficient as they could be with technology, they nevertheless still work. So why would you change something that still works?

Harvey 07:22

A lot of history, a lot of latency sort of wrapped up in what organisations do. So the innovations don't always translate onto the front line. And that's where I think a lot of companies struggle.

Tom 07:37

And one of the through line of conversations that we've had with the other speakers at our upcoming conference is that we carry on asking questions about how can you put talent over technology. So what would be your advice on making sure your culture is right and that people's jobs aren't negatively affected by new technologies?

Harvey 07:57

the big question, right? And so, you know, what is the impact of technology on jobs and on people's livelihoods? And I think, you know, certainly for too long, the narrative has been dominated by this technology over talent conversation.

Harvey 08:14

I think that technology is put on a pedestal and we've forgotten actually the great benefits that come from engaging and involving people in the workplace. And so for me, the key problem is on unpicking that, understanding why that is.

Harvey 08:33

And the conclusion I keep coming back to is that we're just guilty of assuming that the technology is perfect. And when a technology is perfect, then why wouldn't we try and replace people? And in fact, most automation activities are designed to replace people or to significantly reduce their cost.

Harvey 08:57

And if we're doing that with the assumption that the technology is perfect, then it makes perfect economic and business sense. But the reality of course is that technology isn't perfect. And I mean, this will be sort of a major theme of conversations to come in the future.

Harvey 09:18

Technologies make mistakes. And when they make mistakes, what do organisations do to fix those things? They typically will turn to people. And when they turn to people, there's an expectation that those people are as capable as the technology itself.

Harvey 09:37

In fact, they've actually got to be more capable. They've got to be able to deal with those unexpected situations, those edge cases that no one saw coming. So in many respects, they need greater depth, more ability when technology comes to automate a particular process.

Harvey 10:01

So for me, the narrative is completely upside down. For me, the narrative should be much more about talent with technology. And when we think about in those terms, then the impact potentially is much, much less severe.

Harvey 10:19

I'm not saying that automation won't take away some jobs. What I'm saying is that we need to design our technologies. In fact, our systems that involve people and technologies in a way that is sensible for the outcomes that we want to achieve.

Tom 10:36

And do you think that there's anyone or there were any any businesses that you've come across that are actually achieving that at the moment?

Harvey 10:44

Actually, part of my worry is that there's almost no discussion of this at any depth in any detail. There's a lot of simplification and generalization, and I do worry that no one's having this kind of conversation.

Harvey 11:02

The work we do here at EY is not particularly cutting edge when it comes to the application of AI, but we're using the technologies that are appropriate and sensible within the context that we need, certainly within tax, but we're not designing them to replace the people.

Harvey 11:23

What we're designing them to do is to carry out an activity that assists the person in doing their job far more efficiently and effectively than they would be able to do on their own. Or indeed, if the firm was to solely rely on the technology.

Harvey 11:41

So that's a design choice that we're making, and I don't see very many organisations making similar choices at all.

Tom 11:51
Could you go into a little bit more detail on how you are using AI in EY's tax practice at the moment?

Harvey 11:56
Sure, so I've got a couple of really good examples. So bearing in mind that I'm not a tax expert, I was quite surprised when I joined EY to get an understanding of how tax professionals who are highly trained, highly intelligent individuals, have to work through, for example, transactions, corporate transactions, to determine the tax treatment of those.

Harvey 12:24
And very often, these highly trained, highly capable individuals have to pour over thousands and thousands of lines of transactions in a spreadsheet to determine on a case by case basis exactly what tax treatment is.

Harvey 12:40
And it takes them a huge amount of time. So it was naturally a place where we thought artificial intelligence could help. So we designed and have implemented an application, which we call EY alert, which reads those transaction descriptions and categorize them as best it can.

Harvey 13:05
And it doesn't do that in a way that says, here's the answer, file it, and move on. It does it in a way that helps the tax professional firstly identify all of those rows in the spreadsheet, which are correctly classified, and secondly, identifying all those rows where the computer itself thinks there's a problem.

Harvey 13:28
And it provides a set of clues and breadcrumbs, if you like, as to where there might be a problem so that the human can find the error and fix it. And that process, thinking about that as a system, means that it is much, much more efficient and effective than either the computer or the person would be on their own.

Harvey 13:54
So that's an application which is currently in use within EY for supporting quite a large number of client engagements now. A second application we've developed is using machine learning again to take data and information which has been scraped off the World Wide Web and is able to categorize that and identify articles which are talking about changes in tax legislation wherever they happen around the world.

Harvey 14:26
And that is in relatively early stages, but is again showing the potential power and utility of combining someone with a good tax knowledge background with an appropriately trained machine learning system to deliver something which is really, really quite impactful in a short amount of time.

Tom 14:50
And has that had a real tangible effect on the efficiency of the tax practice at EY, the implementation of AI in the process?

Harvey 14:59
Yeah, so we've seen, for example, projects that have taken historically hours and hours of time being reduced significantly in terms of time. So productivity has increased. Now, the full potential of that technology is to reduce, for example, the statistics.

Harvey 15:23
We normally quota 75 hours of human time down to less than a minute of machine time. The reality is that in using the technology, not only are we able to reduce the amount of time, but we're able to go through that tax compliance process in a completely different way.

Harvey 15:45
And I think that is a really key point. We're not just replicating the same old process here. We've changed the process. So our tax professionals are now able to iterate and experiment and potentially, rather than wait for a year-end period to go through and calculate tax compliance, they're able now to do that on a quarterly or a monthly or a weekly or a daily basis.

Harvey 16:12

So we're getting now much more towards real time. So the way in which we address the very traditional problem of tax compliance has changed fundamentally as a consequence of the technology.

Tom 16:24

That's really interesting as well, because that's something that if you said maybe 10 years ago that we're thinking more creatively about tax compliance, like that's something that you wouldn't really associate with compliance, is it?

Tom 16:34

Being able to think in iterative ways and the technology has actually allowed people to kind of free up the way that they think about their role. Is that the case, do you think?

Harvey 16:44

Well, so it frees them to think up and think about the problem that they're trying to solve. Yeah. So they're trying different things with the technology in order to solve problems that they didn't really realise they had before.

Harvey 17:01

And that's the interesting thing is that rather than just this general concept of freeing up someone's time so they can add value, we can actually see how those tax professionals are using the technology to change the way they deliver insights and outcomes to clients, engaging with clients in a different way.

Harvey 17:23

And far from this idea that the technology will remove us from that sort of client connection, it's actually substantially increased the connection because now our clients are interested in the way that we use technology and how our tax professionals can make sense of it.

Harvey 17:40

And so they're having really quite constructive and engaged conversations about it. Questions like, how can we trust the output? What would happen if those sorts of scenarios really never came up before?

Harvey 17:56

You know, the compliance was done, it was reviewed, job done, move on to the next thing. So actually we're seeing an increasing engagement with our clients through the use of technology.

Tom 18:07

And the way you've spoken about about the benefits of AI there leads me on to my next question, which was going to be do you think that leaders have a firm grip on what AI will mean for their business? And the way you were speaking there makes me think that a lot of people almost certainly don't.

Tom 18:21

Because the way you were speaking about the way it's freed up the tax professionals working within EY I don't see many leaders thinking that way about why what I what AI will mean for their business. They think of it in either negative terms or just in terms of efficiency. So would you agree with that statement that leaders don't have a firm grip on what AI could mean for their business?

Harvey 18:44

You're absolutely right that leaders understand the efficiency in general terms that can be gained through the use of AI and other technologies. And that, I don't see as a bad thing at all. So I think your question about whether or not they've got a firm grip on AI is not quite right.

Harvey 19:10

Do they need to have a firm grip on AI? I'm not convinced that they do. Do they need to understand the benefits? Absolutely. Do they need to understand the principles by which they need to implement it?

Harvey 19:24

So it's not just a one size fits all, it's going to replace my workforce? Absolutely. Do they need to understand how it works in great detail? I'm not convinced. I think they need to understand it to a degree, which goes beyond the general simplifications that are made at the moment.

Harvey 19:46

But they certainly don't need to know enough to, for example, to have to code these applications themselves. But they do need to understand the risks and the benefits.

Tom 19:57

And so do you think technologists are putting enough thought into the impact that automation can have on people's working lives?

Harvey 20:04

So here I think is where the real issue lies. Here is I think a key problem in that quite often technologists are brought in to solve a problem and they don't have the context. They don't really appreciate the nuances and the details by which the particular problem they're addressing is currently solved.

Harvey 20:32

So for example if we look at tax classification or indeed any similar problem, it's very easy to come up with a solution for tax classification which seems at least on the surface to address the problem.

Harvey 20:50

But underneath the surface sort of creates a whole heap of challenges. So for example a technologist may look at a process or a set of activities that someone performs and see only what's obvious. And then they will design a process, a machine driven process which perfectly replicates what they have just observed.

Harvey 21:17

And in that replication they miss all of the implicit activities, all of the intangibles which might also be actually very important. And so when they build the technology to perform that process it doesn't quite have the performance or the outcomes that they were expecting.

Harvey 21:38

But they don't have the necessary knowledge to understand that might be the case. And then conversely if you're looking at someone from the business who does have that domain expertise they might not know how the technology works.

Harvey 21:55

So in that environment you genuinely have the blind leading the blind and the outcomes may well not be what were expected.

Tom 22:05

So is that where the leader's role becomes important? Saying to the technologists this is what we need it to achieve. They need to have the overall and overarching say on how the AI will be implemented rather than leaving it in the hands of technologists.

Harvey 22:22

So this is where governance is really important. So I mean, I alluded to it before when clients ask us how they can trust the output that our applications deliver. That question hides a huge amount of complexity and detail.

Harvey 22:41

And it's a question that all leaders should be asking of their own business and their own technologists. How can we trust the output? How do we know that it is doing the things that it needs to do? And how do we know that it's doing those things correctly with the minimum bias, with fairness, and all of those really serious and important questions that need to be asked as technology is introduced into our working lives?

Tom 23:12

You don't want to lose the human touch. Could we be in danger of losing that within our organisations?

Harvey 23:21

I mean, almost certainly. I mean, the danger of automation is sort of many-fold. And one of the areas we've talked about is the way in which automation can often hide some of the intangibles, some of the sort of more human elements of a process that get completely missed.

Harvey 23:43

But there are many other things that can happen as well, and particularly in functions like human resources and anything to do with talent. There are a number of other real worries that need to be addressed.

Harvey 23:59

So there's an interesting statement which Daniel Kahneman made. Daniel Kahneman is the Nobel Prize-winning economist. And he said, what you see is all there is. So humans are very guilty of looking at something and just seeing what's obvious, automating that, and then taking a sort of a step back and thinking, I don't need to do anything anymore.

Harvey 24:29

And what happens when you automate something in that way is that the cognitive load that the person has to undertake, so that as we automate, people are still doing some of their jobs and a number of their activities.

Harvey 24:45

Actually, if we don't give them sufficient load, then their skills degrade over time. So the jobs that they still have left get done worse. So you end up in this situation where, in theory, automation is supposed to make organisations more intelligent.

Harvey 25:05

And in reality, it sort of makes them a bit dumber because what's left is not done as well as it could be. And actually, the automated processes themselves occasionally make mistakes. So you end up in a really quite difficult and potentially dangerous situation.

Harvey 25:23

And I think in HR, that's where we see this potentially at the extreme. You don't want to have a situation where work is automated, and so people's interaction on the talent footing is completely human-less because that sort of suggests that people don't matter.

Harvey 25:48

And what sort of a message is that to people that people don't matter? It also can lead to mistakes. And we've seen examples, for example, in CV screening and other recruitment practices where the blind application of technology creates mistakes and bias.

Harvey 26:09

And all we do is, through the process of training machine learning systems, embed historical biases and exaggerate those things. And that's just one example. I can think of many, many others in learning and development throughout the entire recruitment process through organisational design where those sort of historical biases and problems really start to challenge HR.

Tom 26:46

And I'd just like to finish on one last question, which was, what skills will we need in the future to coexist with more and more sophisticated AI and machines in the future?

Harvey 27:00

So you ask that as if it's a really simple question and its just a bulleted list.

Tom 27:05

We'll finish on this one. It's a nice easy one to finish on.

Harvey 27:08

So, I'm not going to give you a bulleted list because I don't think that's possible. What I would say is, through my experience here at EY and elsewhere, where we're applying these technologies and we're really looking quite hard at the way in which they're being used, we've got a good insight now and it's a growing one into what kind of skills are needed and it is counter-intuitive, it's not what you would expect.

Harvey 27:39

So, the conventional narrative says we let the machines do what they're good at and we let the people do what humans are good at so we'll get them problem solving and critical thinking and communicating and collaborating and all those good things which computers find difficult because they're specialized intelligence and we're general intelligence.

Harvey 28:02
Now, we do need all of those things, that's important but if we think about some of the examples I've given where tax professionals now need to understand how the technology works so that they can spot mistakes or we're increasing the range of technical technology knowledge that our tax professionals need, we're also entering into a situation where they need to deepen their existing knowledge, we don't need to eradicate it.

Harvey 28:31
We need to deepen it because if people are dealing with the complex edge cases and those scenarios which we've never encountered before, actually they need the detail, they need to be challenged and so rather than technology simply eradicating some of these areas of knowledge, actually it's changing them completely, they need to deepen.

Harvey 28:58
So if we think about people as being T-shaped and that's quite a common way of thinking about skills and abilities, what technology does is stretch all dimensions of the T, it doesn't fundamentally change the shape of the T which I think is very often the narrative so as well as all of those human skills we now need additional technology skills, we now need to deepen our knowledge in certain areas so the challenge isn't which skills really, the challenge is how do we give people sufficient time and resources to broaden and deepen, that's the challenge.

Tom 29:47
That's a really interesting note to leave it on. Harvey, thanks so much for your time today. It's been a very thought stimulating conversation.

Harvey 29:52
Thanks, Tom.

Host 29:57
You've been listening to Future Talent Learning's In Conversation podcast. Thank you for joining us. If you've enjoyed this episode, please check out the other conversations we're having with leaders and thinkers about the changing world of work.