Leeds University Business School - Research and Innovation Podcast
Episode: The two forces driving legal tech growth: people and power
Speakers: Dr Virág Blazsek and Professor Danat Valizade

[00:00:05] **Virág:** Hi, and welcome to the Research and Innovation Podcast. I am Virág Blazsek, a lecturer in commercial, corporate and banking law at the University of Leeds School of Law.

[00:00:15] **Virág:** And I am joined today by Danat Valizade, professor of Quantitative Employment Research at Leeds University Business School.

[00:00:23] **Danat**: Hello. Hi everyone.

[00:00:24] **Virág:** And today we are exploring how legal tech growth is shaped by two key areas - workforce change and energy policy. I had the pleasure to speak at the "Legal Tech in Leeds" conference recently with Danat.

So, what are your main thoughts about the recent conference we both attended? I greatly enjoyed the conference.

[00:00:46] **Danat:** Oh yeah, it was an excellent one. We talked a lot about AI and technology adoption in the legal sector. It was, it was exciting. There were a lot of very productive and meaningful conversations, which you don't see very often nowadays.

[00:00:59] **Virág:** Danat, you have been researching the quantitative aspects of employment for a long time. You've spoken on AI, right, and you're focused on smaller and medium sized law firms and what AI means for those organisations.

[00:01:12] **Danat:** Yeah. So, I guess we need to take a step back a bit and think about the level of AI and digital adoption more broadly. And that will kind of segue into the legal sector and the point I made, that the legal sector, while it's leading the AI adoption across the economy, it's not too dissimilar from all the problems we're seeing in the wider economy and the jobs market.

Now there's a great deal of hype about AI and there are expectations that a lot of firms and jobs will have an AI or automated element to them, but we don't really have a great deal of reliable empirical evidence on that. Economists tend to look at the job vacancy data and infer from vacancy postings whether jobs have an AI component or machine learning component to them, and therefore try to estimate how much of the labour market is really, firstly, potentially automatable, and then, secondly, is exposed to technology.

Now, vacancy data has a lot of limitations. It doesn't tell us about the labour market overall. It only tells us about the advertised jobs, and more importantly, it doesn't tell us anything at all about what happens when people are actually at work. You might want them to have AI skills, but who do you actually recruit and what they do at work - we don't know.

So, the best we can do is to try and survey the employer population to get a more accurate snapshot. I mean, there are very few surveys out there. One is done here in the UK, by our Digit research centre. And what we found is really only about a third of employees, just slightly more than that, purposefully invest in AI and machine learning. And the vast majority don't. There is of course, a great deal of variation, around that. We know that bigger firms invest a lot more and smaller firms are struggling to invest, find the enough resources to, to invest in AI and maintain that investment over, over a long run.

Interestingly, when we look at those firms that do end up investing in AI enabled technology, they have a more positive employment outlook. They have a more positive financial outlook, and generally speaking, they provide higher quality jobs and better working environments. So that poses challenges to those that don't invest in technology.

Well, that's labour market overall. Now, I guess the question is how is legal sector different from that? In a couple of ways. Firstly, it invests at much higher scale. So, if we look at the labour market overall, small proportion, legal firms have been experimenting with technology and AI and generative AI for a long time, and that indicates that this wave of technological innovation is quite different.

Previously, legal jobs at any level were thought of as non-automatable. In other words, there's nothing you can do to replace human labour in those jobs. Generative AI changed that. Consultancy firm estimates are that about 80, 85% of billable law legal work is potentially automatable through generative AI. This is very different compared to where we were 10, 15, 20 years ago. That makes the case of legal sector really interesting.

Now the question is, are legal firms really investing at such a pace? Are jobs being automated? And the reality is that many problems we're seeing in the economy overall, for example, higher levels of investment among larger firms or higher levels of investment among more economically stable, prosperous firms and lower investment among the rest of the labour market. Now we can see similar patterns in the legal sector.

Magic Circle, multinational firms have been investing for years and then they have established, AI infrastructure and they train lawyers to work with it. A lot of smaller, mid-sized, regional based firms don't, and they struggle with investment. They consider it very risky.

And another major, major, limitation or barrier is the fact that we don't really have enough skills in the labour market overall and in the legal sector in particular, surprisingly.

In the labour market overall, just about half of workforce population have the basic digital skills, which is a great barrier to the AI adoption. Now the level of digital competence in the legal sector is quite a bit higher than that, but there are very few lawyers out there who are trained to work with AI, who are trained to work with generative AI, large language models, who can do it efficiently, ethically, and without any negative consequences to the firm or their clients.

So at the conference, many legal firms highlighted the lack of skills and training in AI as a major, major barrier.

[00:06:27] **Virág:** How have you started to research this area, and you have several peer reviewed articles, and I know that you also have done some comparative work related to Australia and the UK?

[00:06:40] **Danat:** It was almost impossible to avoid it because AI, AI revolution was on everybody's mind and tongue, particularly among the economists. Now, part of the problem was that the discourse, the narrative was very much dominated either by tech and enthusiasts and tech firms. Well, obviously they're keen to promote their own products, but they also expect a lot from AI.

That narrative was very quickly bought in by the governments thinking that AI will revolutionize industries the way it will work. It will solve the productivity problem. It will guarantee economic success and economic growth. On the other hand, there were a lot of sceptical and very critical voices who kind of tend to blame AI for everything and think that AI will be some sort of major, major digital surveillance tool, or it will replace all the jobs and destroy the economies and labour market the way we know it.

And we realize we just don't have credible, representative evidence as to what is actually going on. So that was the main motivation. And we've done some comparative work with Australia, not necessarily in the legal sector, but in the labour market overall, and a lot of comparative work is ongoing.

But our main motivation was to try and get to the bottom of what is actually going on rather than sort of listening to the hype and buying into it without any evidence.

[00:08:06] **Virág:** Mm-hmm. Do you think that the legal sector shows different trends as compared to other sectors?

[00:08:13] **Danat:** Yes, in a way that it is, technological adoption is higher, in a way that we're now seeing some of the entry level jobs into the legal sector being susceptible to automation, which is very, very different compared to where we were many years ago. So that shows again, that polarisation, that inequality across the economy and legal sector is leading the way. And within it we have problems.

But I guess one of the most important implications are that in the short run, some of the entry level jobs, into the legal sector are likely to be automated one way or the other. So that can potentially happen. What are the implications of that for the legal careers now we know legal careers have very established rigid patterns. People enter the profession, and they go all the way from this sort of entry level jobs, potentially to acquiring a partner status in a, in a law firm. Now, if a lot of entry level jobs get automated or replaced by generative AI one way or the other, now that doesn't wipe out the whole of the profession.

That means that some particular tasks that entry level lawyers used to do routinely are automated. What does it mean for careers in a legal profession? There's no good answer for that, but that is likely to happen. What does it mean for education? What does it mean for universities and law degrees? How will they transform? So, there are really big questions about, about technological change in AI and that's what makes this sector quite fascinating.

[00:09:50] **Virág:** Hmm. Fascinating. So, it seems that the sector, similarly other sectors of the economy and my research is mostly focused on the financial sector. So, certainly the aspects you have mentioned, resonate regarding those sectors as well, in particular. So, these opportunities and challenges are really interesting.
And you have highlighted that investments in AI-related skills, is really important, but, in your view, at this point is quite insufficient.

Would you elaborate a little bit more on that, and who do you think should lead this investment? Is it something that should be done by the private sector or rather coordinated by the government or a combination of those two?

[00:10:33] **Danat:** Yeah, that's a very good question. Now we know, we know that skills are a problem across the UK economy and in the legal sector in particular. There is no clear sort of universal answer to this question. There are different national systems that we can look at and try to, for example, or at least take the best practice on board.

Now, there are Nordic countries where we have a sort of tripartite system where employers, governments, and workers through their representatives decide on those matters together, design and implement training practices and norms. And in those environments, it's quite natural for AI-related training to be slotted into existing structures and they can be quite successfully adapted.

The UK has never done that. The UK has always relied on sort of market driven mechanisms. UK always wanted employers to lead the way, and businesses to train workers to their needs. And that works to some degree, particularly amongst the leading, more successful, financially secure and stable firms. But that creates problems for organisations that don't have resources, consider those investments risky or don't feel the need to invest in training.

So clearly that has to change if the UK economy and the legal sector want to be successful in AI adoption and go with the way that benefits both workers and organisations. They have to reconsider how they invest in training. It's got to be more purposeful, it's got to be more coordinated, and it also has to involve the very people who will be subject to AI and affected by AI like lawyers themselves, solicitors. They've got to be at the heart of the process. Otherwise, it's just not gonna work for everyone, for everyone involved.

And I think that's the main, that's the main barrier, but also one of the potential solutions to the problem. And I guess I could probably wrap up the whole thing about AI and the legal sector by saying that we're just, just at the very beginning of this process and we really don't know what's gonna happen going forward.

Will it follow the patterns of the previous industrial revolution, where some jobs were displaced, but more jobs were created? We don't know that. What we know for almost a fact is that we are not quite prepared yet as businesses, as governments, as human society to some of the challenges revealed, exposed by early adoption of artificial intelligence.

Our legal system, potentially our political system, our economic system, are they prepared for the transformation coming our way? Hard to say, but at the moment, no. And we can see it very clearly on the example of skills and AI adoption in the legal

sector, which I think brings us a lot closer now to your research. And I would like to ask a couple of questions about the points you made at the conference and your research.

For example, you talked a lot about energy policy as a foundation for legal tech success. What is the most urgent energy reform you think the UK needs right now to support the sector?

[00:13:46] **Virág:** Right. So, energy has been part of the conversation for at least a decade or so. It's been very important as we all know technological development and increasing digitalization means that humanity's energy needs have been increasing. And we have studies which actually indicate that as soon as by 2030 on a global scale, we will need twice as much energy as we consume currently.

Now I am, quite optimistic and this estimation doesn't factor in further technological developments, which have been exponential actually. So, I don't discard that we might come up with more energy efficient hardware and, I think, that is going to result in more sustainable energy consumption levels. However, it doesn't change the overall picture that, in the short and medium term, countries such as the UK need more and more energy, because of the increasing digitalization across all sectors of the economy.

Now, my research is mostly focused on the financial sector, but I have been invited to speak at the Legal Tech in Leeds Conference for three consecutive years. In the first, two years, in 2023 and 24, I spoke on finance, focused on what going on in terms of AI and the legal department and what generative AI means for medium size and larger law firms.

And this year, I had been asked to deliver a keynote. And I was thinking a lot about what is the most crucial message I can share at this conference, as someone who is going to talk about partly academic aspects, scholarly research. And, it, it came to my mind that we haven't been really discussing over the past three years or so, the energy policy aspects of AI and, and generative AI. So, this is why I started to research about this topic. But, going back a little bit, even more, this, this research, I built upon, first really tackled, secondary financial and FinTech centres.

A couple of years ago, I secured the Michael Beverly Innovation Fellowship. (Actually, I, I received, that funding twice in 2022 and 23). And it's really interesting to me how the secondary financial and FinTech centre such as in Leeds, developed over the past decade or so, and they have become more and more important, in terms of economic growth and innovation.

So, what I was trying to find out, during my research leading to this keynote, and also the related publications, which I believe we'll link to in this podcast is what the sector can do because we have constraints.

So, there have been some actions and decisions in terms of the UK's energy policy in, in the past couple of decades, such as trying to shift away from nuclear too fast and not accepting that, currently, even if it's not desirable, our energy production globally is fundamentally based on fossil fuels.

So, investing in new green and sustainable energy is very important. But I feel that the shift has has been made too quickly, without having really viable alternatives and that, in combination with the acceleration of AI and generative AI, and the related increased energy needs of this country and, but also globally, I think that we need a reality check and we need to have more sustainable and more viable energy policy.

And, that has already started in the UK. One of the components of that is to open a little bit more towards clear energies more small modular reactors have been contributing more and more to the energy production of this country.

And, the other component I highlighted at the conference is that energy stability and energy independence is really important and it's very directly connected also to sovereignty of a country and the independence of our economy. So, obviously, there's a very significant energy import from Norway, electricity import from Norway. So, diversification of energy sources is another recommendation I made, but more importantly, I try to make some recommendations for companies, for the private sector because I think that, as you mentioned, regulation is very important.

Policymaking can really make huge positive difference. But, I rather think that incentivizes could be increased. Especially taxation hasn't been used as much as it could be. And on the other hand, I think that firms, law firms, but also, this is applicable to other sectors of the economy as well, could make their energy policies, and energy related measures more visible.

And also, it's important to have a long-term strategy. For example, investing more in hardware that is more energy efficient. So these are the main components, of a more, sustainable and perhaps more competitive, energy policy on a state or regulatory level, but also on the level of the private sector.

And I fully agree with you that, because of the financing aspect, but also because of the new, or novel regulatory challenges, these technological changes mean regulation, needs to play a very important role going forward.

[00:19:49] **Danat:** I couldn't agree more with you or on that. I think you in particular suggest for legal firms to develop energy integrated strategies, and I'm sure listeners would like to know what exactly does it mean in very plain terms for practicing mid-size law firms?

[00:20:10] **Virág:** Yeah. So, here, there is an intersection between your research and my research because, obviously, the bigger an organisation is, the easier is to invest in energy strategies. So, typically smaller and medium sized law firms have other priorities, and they have difficulties in terms of financing such strategies.

But there are things smaller and medium sized organizations can do as well. We have, for example, international certifications such as the ISO 50001, or the PAS 2060. And they can make those visible, they can collaborate with, with those certifier organisations.

And that already indicates to clients that they focus on more sustainable strategies in terms of the energy consumption and that can also translate into more time and energy saving. And really, more financially affordable services, for example.

So, it's not, not just about positive message to be more sustainable. If companies have long-term strategies, they can become a more competitive among their peers basically.

[00:21:27] **Danat:** Yeah. absolutely.

Okay. Last but not least, everybody knows nowadays about the vulnerability of the UK and some other countries in the energy sector - do you think there are any lessons we can learn from other countries? I know you've done comparative work in the US and Singapore among other countries. Is there anything we can learn from their experience?

[00:21:51] **Virág:** Yeah. So obviously, these other jurisdictions you mentioned are very different, from the UK, but I believe that there are learnings. So Singapore has a very centralized and very articulated, regulatory framework. And Singapore is particularly mentioned, for example, in the Kalifa Review and the related, policy measures which are focused on the financial sector, but similar to the legal sector, the financial sector has been undergoing high level of digitalisation so there are some parallels there. So I think that there is a best practice and example that regulation can play a positive role. Now when it comes to the US, UK nexus, I think that obviously there are significant differences in terms of markets size and access to finance. So, besides the very important aspect you mentioned, and I fully agree with you, that energy is important, but only after human resources. So that's, that's another thing I mentioned during my

keynote that, I fully agree with you that there's a knowledge-related constraint and we need to overcome that.

And, of course, the other important building block is energy. But I think that the UK has a high level of innovation, a lot of great ideas, Leeds is an example, but we have also other clusters across the UK and there's a brain drain. So, after a certain size, because of the better access to financing the, and access to a bigger market, successful UK companies tend to relocate to the US, so we could, try to do something about the financing. And there have been some policy-level work in that respect in the UK. And, also, we can tap into the US/UK existing relations and maybe increase technology export to the US, for example.

And, I know that, that has been going on already. So, UK firms have been going, doing some great jobs in the US for example as to the implementation of small modular reactors. And that's a two-way street. So, the US has been, also, exporting technology to the UK.

So, I think that strengthening those ties is going to be very important for the UK going forward. And I also think that it's not a waste of money to invest in novel types of energies. Fusion is one of them, or hydrogen, but I think that we need to be realistic and in the next five or 10 years, we need to accept that, that nuclear energy is still a very important building block of the energy policy of the UK if you want to remain competitive.

[00:24:40] **Danat:** Wonderful. Thank you. I think we have exchanged quite a few ideas already and it's probably time to wrap it all up. Thanks everyone for listening. I guess the main, the main conclusion is that not all hope is lost and there are clearly ways forward, which hopefully will materialize in the future.

Thanks a lot for listening to the podcast. Don't forget to check out the previous and future podcast and you can read a bit more about our research on the webpage that will come along with this podcast. Thank you.

[00:25:06] **Virág**: Thanks, Danat.