Transcript for AI for Services 2025 Podcast

Series 2, Episode 8

Structuring the unstructured

Innovate UK

Next Generation Professional and Financial Services Programme

June 2025

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Speakers in this episode are (in order of appearance):

- Astrid Ayel, AI for Services Lead, Innovate UK Business Connect
- Gemma Fulbrook-Felstead, Director of Operations, Collaborative Conveyancing
- Robert Firth, Senior AI Research Scientist, STFC Hartree Centre
- Jonny Palmer, Data Science Lead, Collaborative Conveyancing

Transcript:

Animation:
Innovate UK, the UK's innovation agency.

Astrid:
Welcome to the AI for Services podcast series. My name is Astrid Ayel. I work at Innovate UK Business Connect and I run the AI for Services Network.
AI for Services brings together 1500 members interested and involved in transforming the UK professional and financial service sector with the development and adoption of digital technologies.
In this series, I interview some of the organisations funded by Innovate UK and the Economic and Social Research Council. This includes startups, universities and firms. We hear their stories on how they built their projects from scratch, their ambitions for the future, and we discuss why the challenges and opportunities for innovation.
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In this episode we welcome Gemma Fulbrook-Felstead, Director of Operations at Collaborative Conveyancing, and Jonny Palmer, Data Science Lead at Collaborative Conveyancing as well, and Rob Firth, a senior AI Research Scientist at the Hartree Centre.
So, Gemma, let us know how Collaborative Conveyancing started.

Gemma:
Sure, so the two co-founders, Chris Harris and Karen Babington, have operated and run businesses previously in the conveyancing sector, but this business was new to them. Founded in 2021, was born out of a problem with conveyancing enquiries, which I think is going to take up the basis for this podcast, but to give some background. So new business in 2021.

Astrid:

Great, and so how do you help, how does the solution help the conveyancing sector? You know, I'm sure that some listeners have gone through buying a house – how does the process of buying a house work and how does your solution help that process?

Gemma:

Sure, so if you have bought a house, you probably know how lengthy and possibly stressful the process is. And we are part of that process. If you're buying a house, you're going to employ a solicitor, a conveyancer to bring down the risk really, to make sure that the house that you're buying, well to make sure nothing's going to surprise you once, once you've signed on the dotted line. They are there to do lots of things, but one of the things is to raise enquiries to the other solicitor to say, 'what are all the things about this house that we may need to know before the buyer buys it?'

And these enquiries are raised in lots of different ways. It's very subjective, depending on how the conveyancer views the property, depending on what risk they think there may be. They look at lots of documentation, they look at title plans and lots of things to work out what questions can we ask to minimise the risk for our clients before they buy the house. This enquiries part of the process is very, very lengthy.

I think it's increased immeasurably, probably since 2007, and now takes up to something like 21 weeks, it takes a very long time. It's a long part of the process. It's very difficult to track and to measure. And it's very stressful for Conveyancers and those people that are buying houses as well, because it's just impossible almost to tell how long it's going to take and what sort of questions are going to be asked and how they're going to be answered.

Astrid:

Does this process usually work by email?

Gemma:

Yes. One of the challenges we have is, and it's probably why there hasn't been a solution for this in the past, is these questions are raised via email. Originally, way, way back they were probably raised on letter and sent to each other in the post. But now with the email, it's probably made it worse in a way, because you can just keep asking questions, but they go back and forth on email – the main part being that they're unstructured.

So, if I'm a conveyancer, I can ask questions in any way that I like. I can word them in different ways – Jonny can go into some of this detail later – but I could number them in different ways, I could use numbering, I could use letters, I could use tables, I could use a PDF or an Excel document. Everybody is

different. There are thousands of law firms in the UK and hundreds and thousands of these enquiries being asked every day, week, month. And they're all very different.

Astrid:
So how does Collaborative Conveyancing help that process specifically?

Gemma:
So Chris and Karen came up with the idea to look at how we could somehow structure unstructured data? Now, that's really tricky. And this is where Hartree came in to help us – we'll introduce Rob later – but if we could do something with this unstructured data to try and, recognise it, extract it out of these emails, work out what was being said, even just letting the conveyancers know that these are the enquiries that are being raised and finding a way of tracking them – would potentially make this process a lot quicker, more transparent to those who are involved and potentially bring down these transaction times that we're only seeing increasing.

Astrid:
Do you think there are problems are sort of niche problems – are they widespread to all conveyancers and all law firms?

Gemma:
Definitely widespread. We also saw in the sector over many years, some experienced conveyancers leaving the sector. It's well recognised that it is very stressful as I said earlier being a conveyancer, and some people have been in it a long time, either who are really experienced or can train less experienced conveyancers – are leaving the profession and that leaves a big hole in the market.
It means that the less experienced you are, the potential is that you may ask more questions because you're concerned about the risk, and you want to ask as much as you can to make sure that you're de-risking this property for your client. And therefore, the number of enquiries goes up. Sometimes they definitely do need to be asked, but sometimes they may not need to be asked by different types of conveyancers – so we see these questions going up.

Astrid:
Are we seeing the industry changing? Your solution is part of the change, but are you seeing other changes happening?

Gemma:

In relation to enquiries, we're not seeing the number of enquiries going down. We're only seeing them increasing. There have been lots of improvements in other parts of the transaction – there are lots of things that make it easier to check ID, to do the end part of the transaction. But this part in the middle remains really, really difficult because it's unstructured and almost unpredictable in a way.

So we haven't seen a lot of change there in all of the time we've had Collaborative and obviously before that as well so probably not a log ot change. I'll come on to it later, but we'll talk about changes in the industry in the way they may want to adopt technology – that has definitely been a change – but in this enquiry part, there has not been much change in the last few years at all.

Astrid:

I guess what's tricky is that every property is different. So some questions will be similar but some questions might be quite specific.

Gemma:

Definitely. When Jonny gets into the detail, we always ask Jonny in the data science team, can you vive us an amount of topics, at least can we break these down to topics so we can try – there are absolutely thousands, though we do see some similar questions and types of things, but some could be very different. You could be selling a house that has a moat built around it and there'll be a question about that.

There could be a house that is near some sort of historic thing that's been built and there'll be a question around that. It's very different from property to property. And of course, there's freehold and leasehold and lots of different questions around those as well.

Astrid:

Great so Rob, do you want to tell us a little bit about the Hartree Centre and how it has become involved in this project?

Rob:

Yeah, the Hartree Centre is a challenge-led research technology organisation, based in at Daresbury Lab, Cheshire. There are around 200 people spread across a number of specialisms from data science, high performance computing, software engineering and artificial intelligence, who really exist to use that expertise to solve industrial problems, to get the technologies of today and tomorrow into the hands of people who have real industrial challenges, like those that we see for Collaborative Conveyancing.

And what that means is we're really dependent on the domain expertise of people like Gemma and Jonny and the Conveyancing team, and Chris and Karen to say 'here is a problem' - we think that some AI

technologies can kind of address it, but we're not AI specialists ourselves. At the Hartree Centre, we have people who know these technologies, but not the area. Let's drop them into a combined team and work on this problem together and produce a solution that works.

Astrid:
How have you been involved in this particular project? What's your role?

Rob:
With this particular project, we were engaged in a small proof of concept project by Collaborative Conveyancing as part of some regional development funding. It was originally a three-month engagement, just to demonstrate that kind of the signal was present in the emails in order to build an AI system to extract the information in a way that would be useful and actionable for the conveyancers.
And that was enough to demonstrate to Innovate UK funds that there was really a golden opportunity to apply some of these most sophisticated technologies to really extract it, manipulate it, and pass it on to a subsequent part of the pipeline. So I came in as the technical lead from the Hartree side and, over the course of the engagement, we shaped the challenge into one that could be addressed by the natural language processing type approach.
I think the timeline is fairly important here. So at the time we were pulling this project together, it was mid 2020, which, for those of you who can remember, is when the kind of large language model paradigm – the likes of ChatGPT – was very much still in its infancy. We were able to construct the problem in a way that was a little less of a black box, and was able to provide some degree of assurance to the specialists that you can monitor the process of classification, for example, or automated annotation through the application of a slightly smaller model.
This is all expertise that we built up over a number of years and a number of successful projects, through a range of industries, and it was something that was completely new to the team at Collaborative Conveyancing.

Astrid:
So gemma said we are trying to structure unstructured data. What techniques and what process and practices do you use to do that?

Rob:
Initially, the challenge is actually superficially quite simple and practically quite complex, which is not unique to this one project or even this area. So even distinguishing in an email between the content of the email

and the footers of the emails is actually surprisingly hard to do at scale without dropping a fraction that you're not sure about.

Because lawyers like to write quite a lot of disclaimers at the bottom of their emails, so you need to be able to chop that off to get to the actual content of the email. So we had to build a machine learning classifier that would identify the content, because off the shelf solutions were not sufficient.

Once we had the content of the email, we had to divide that into what you might think of as sentences. But really, we have to think of it as semantically consistent units – just things that have a meaning then you move on to the next one and it's discussing something else. Now, the semi-structured nature of the email means that sometimes that is a sentence, as you recognise it as a speaker of a natural language. It might also be quite informal, it might be a bullet point, it might be a numbered list that doesn't actually have a full stop on it. So it's not as easy as saying, 'find where the full stops are', because some of these enquiries might be on multiple lines, so you have to use some advanced sentence segmentation or paragraph identification algorithms.

And then the first real AI component was that of a classifier. And that was to classify whether the content that we were showing the model contained an enquiry or not. It was a very simple to boil it down into a binary choice – is it interesting or is it useful? Do we need to do anything with it or not? For example, if you write Dear Sir or Madam, we don't need to classify that as an enquiry.

If it is, please provide some information about the extension. Then that is an enquiry. We need to make sure we're always pulling those out. And we had to discuss in some detail with the Collaborative Conveyancing experts about what it actually meant to have a thing that needed to be classified as positive. We got them to generate a training dataset for us where they annotated a load of examples of 'this is interesting', 'this is not', providing the right data mix of positive negative and so on. And then we trained a machine learning model based on a larger language model to do this task for us. That was really the first place where it came in.

As the project continued, we started to refine that and take the outputs from those classification models and attach topics to them, to tag them with particular areas. It might be extensions, it might be drainage, it might be issues with neighbours. And those classifications help the conveyancer through the process and, right towards the end, we started to interact with the store of knowledge that conveyancers have as a handbook. So, actions you could take based on the information contained in that. Jonny led on that piece of work and carried it on, so I'm sure he will be able to talk about it a little bit further.

Astrid:

Yes, it would be great to sort of understand Jonny, how you obviously work closely to Rob and how does that relationship work?

Jonny:

I think the project was going for a good 12 to 18 months before I even joined Collaborative Conveyancing, so I think they were well on the way to building what Rob has just talked you through. I came in at a point where we were able to relatively well extract individual emails from the process and extract individual enquiries from within emails.

The process of how we actually worked with Hartree was pretty slick from the off in terms of everything that they got together was very well documented and laid out.

It gave us a good leg up in terms of, we had a really good grounding, a good core product, to able to then build on what Rob's just mentioned – in terms of, even once we have individual enquiries classified correctly, we can say, 'yes, there is something that we're interested in here' - we then needed to be able to build on that to say even if we've split it into an individual enquiry, which might be only a single sentence, you can obviously still ask for two, three or four separate pieces of information from within that one sentence. So we then needed to go down another layer to be able to extract from within those single sentences. We should be able to extract individual tasks that that conveyancer might be asked to do.

So you know, it kind of grew arms and legs in that respect and I think the project started off as 'can we extract the enquiries and structure this data' but the more you look into it, the more complex the solution needed to be to be able to really help the user, and help the conveyancer through the process.

Rob and the Hartree team were always there as a really good resource for all things data science knowledge, and to be able to say 'how are we going to go about this?'. Rob and the team would always have good suggestions and very good grounding of that base knowledge that we could then layer on top our domain knowledge as such. That is a really good, a good fit in terms of the domain and the more the academic side of the relationship.

Astrid:

And what data did you use to build those models?

Jonny:

The main aspect that Rob was talking about was probably the bulk of our training data, in terms of the data that our conveyancers had had tagged up and labelled. From our perspective that later stage of being able to extract individual tasks from within even one or two sentences, split them out into individual points that the conveyancer may then need to deal with.

This kind of brings on to the idea of a knowledge store, a knowledge bank, in that our AI solution, we tried using a large language model to answer some of the questions originally. But as you can probably imagine, it sounds like an AI model rather than a natural conveyancer. Because as you can imagine, lawyers have a very particular way that they talk to each other, they use very specific language, and you know, we don't

inherently understand what position each conveyancer will be in at the time that they receive a particular enquiry. We realised quite quickly that using a big load of training data to say, ‘go and learn how to talk like a conveyancer’ wasn't really going to fit the bill here.

So, we essentially spoke to our conveyancers in-house and said, I think we could do with gathering a lot of information on how you would deal with each one of these enquiries. And you know the skill in how we actually turn this into a product that could correctly identifying when we are talking about each of these topics and then having the control on our side to be able to show that to the user and say, ‘ok, here's some information that we think might be relevant to what you're being asked to do’, and then call on that, at the right time essentially, rather than having – like Rob said, we're trying to avoid that black box element of AI where you have no control over what is being sent to the user, because then the user might then flag it and say, ‘this is a quite a strange response, this isn't really helpful to me’.

If we can then go in and you know update that information and change it, or give a reason as to why that's happened and that’s been returned, then you can imagine that you would lose confidence in the product quite quickly. So retaining that control, via the use of sort of a structured knowledge store, was really, really important to us as well.

Astrid:

And were there any other issues in terms of trust and have you found that potential stakeholders or the interested clients are a bit nervous about what you're building?

Jonny:

I think everyone's a little bit sceptical, of, you know whenever you hear the term AI come up in any sort of conversation, especially obviously a professional setting, I think inherently people are still a little bit sceptical and they're going to ask a lot of questions around what's happening to the data, where is all of this coming from, is any of the information used for training data and training other models, etc. where's all being stored, where is it going, etc. etc. So, it's really important for us to be transparent and upfront with any potential users, as to what happens to the data.

All of our data is stored within, as Rob and the Hartree guys set up that existing infrastructure. So when I joined, everything was already stored in Azure, and obviously all the security overlaid over the top. We've been yeah, we’ve kept everything in-house within Azure also, so we use some large language models now that have kind of taken on usage of since the project ended, which are all stored completely separate from any other company.

So we use an Open AI model that's hosted completely within the Azure infrastructure. So it doesn’t touch OpenAI in anyway. Because if you use OpenAI within the stock ChatGPT implementation, all of that information is sent to the USA. So we made sure that the region is completely closed off, so that you can

only, the information is stored completely within the UK essentially. We made sure to only use models that adhere to that regency specific structure.
So yeah, we're very clear with people who interact with this – that that is how the information is stored, how it's processed. And once you kind of explain that and once people understand that you understand where it is, you can point them to the relevant pages, you know we can explain what happens to all this information, then people tend to be more open to it and suddenly they realise that you know what's going on and they can trust what you're saying, and they can trust where the information's going. And then people tend to relax a little bit more and they're more interested in what's actually happening and start to look at the product rather than the data side of it.

Astrid:
And, Robin, I was just wondering – because I'm guessing that you work across many sectors within the Hartree Centre – and for you, what were the main learnings with this project and working in the legal sector? Did you see anything particular, compared to other projects that you were working on?

Rob:
Yeah so you're right, we do work across pretty much all sectors. I'm a sort of specialist in unstructured data, so I do a lot of work in document rich areas – so things like legal and professional services, regulatory areas but also academic literature and things like that.
So it is always true that the real value is in the experts and I think that's really quite apparent when you're working in the legal domain, because they will tell you to a seven and a half minute slot, how much their time is worth. So you have to be really, really careful about how you're using your expert time. So that's perhaps not something new, but something I was really reminded of.
It's always worth bearing in mind with something as significant as a property transaction that you don't want to get this wrong. It's perhaps not life and death, but it is a significantly stressful thing in people's lives so you want to make sure that that goes well, you have to give it a good deal of consideration and remember that there are individuals at the end of it. We've said that that legal speak is a little bit inscrutable, it's very dry sometimes. But ultimately these are people, and we're trying to make their lives a little bit easier. I think that's something worth reminding yourselves of in areas like this.

Astrid:
Gemma, so the project is finished. What stage are you at in terms of your business? Have you got a product? I know you are going to be one of the exhibitors at Legal Geek. So are you engaging with law firms, conveyancers? Tell us a little bit more about that.

Gemma:

So yes, so when this particular project ended, it probably took us another three months in total to get to a stage where we were ready to launch the product in the market in kind of a trial version. In one month, I think it was February or March we launched this year, and we did over 100 demos to law firms within that time.

I'm speaking to what Jonny did a minute ago. It was really positively received – which the likelihood of that is that there is definitely a problem and people are looking for a solution to that problem. It doesn't mean we don't have lots of other hurdles to overcome but, to go right back to the beginning, if conveyancers don't have something to help them, it likely means that they are possibly cutting and pasting.

It sounds like a simple thing, but cutting and pasting these enquiries out from emails, and putting them in some sort of other document, whether that be Word or a table or something, so there having to do a lot of manual work. They're very used to it – and they're pretty quick at it to be honest – but they are looking for a solution to help them, things can get lost as well.

So it was well received. We put the product in with some friends to trial on pilot, and it's still sitting with those firms as it is now. We have some users using it day to day. With lawyers – or anyone really – if you're asking someone to change the way they work, and we are, it's difficult, because you're used to doing something in a certain way. And there is a change, because some technology has taken over for you. But once they get into it – I even had someone say to me the other week that they enjoy using it – that's probably part of Jonny's and the conveyancers' work, actually, because it comes back and gives them some suggestions.

So there's definitely some tricky parts in the implementation, but once they get to use it, they're finding that it's making their lives that bit easier. And it's also helping their communication with third parties. If you're a conveyancer, you have to update your client on what's happening and you have to update the estate agent with what's happening. If you have to go through 100 emails to do that, to work out where you are, that's a pain. But one of the things we've built in is we can see all of the back and forth of all of these enquiries, and that makes it a lot easier for them as well. So yes, in these trials it's been positive.

We've got some upcoming projects with larger law firms. They obviously have hundreds of conveyancers and thousands of enquiries. The way we implement and roll out with these is slightly different. But it's been six months and it's going well.

Astrid:

And are you able to continue on training the model with those new pilots and what you're working on now. Or is that the next stage?

Gemma:

So what I would definitely say is we are nowhere near the end of our data science journey. There is lots to do. So we started off, and we could – as Rob and Jonny said – we can extract enquiries, we can do that very well now. But as Jonny started to allude to, can we work out what the conveyancer may need to help them to answer these enquiries? That comes back to my beginning point where we're talking about less experienced people in the sector.

So Jonny and his team have had a lot of work to do on that part of it. And still to this day actually, Jonny will attest, we have live data coming in and we're still refining and training and doing things to make sure we can still extract everything that we need to.

Jonny, it's probably worth talking about some of the challenges that you still have in the data science area, because it's definitely not stopped, I know that.

Jonny:

Yeah. I mean even when you think about the forms that people are referring to, lawyers will often say, as I said earlier about the one enquiry that might contain three of four different actions. Conveyancers will often refer to a specific form and say, can you please provide the documents at 4.1, 8.3, 12.4? And that could be one sentence that becomes three tasks. But then obviously as new forms come out, as they are updated you know, once every couple of years or once every two or three years, whenever it may be, those sections of each form will completely change in what they are requesting in terms of the documents that those specific questions are referring to.

So, we need to make sure that we're constantly on top of it in terms of updating our knowledge store that I was talking about earlier to make sure that once those new forms hit, that everything's updated on our side so we're not directing people to the completely incorrect documents that they're being asked for.

In terms of new legislation that's coming out, things like the Building Safety Act, as a result of all the leasehold changes that have come in over the past few years, that's still relatively new to a lot of conveyancers. A lot of people don't take on that work. So we'd like to be able to keep on top of that and make sure that we're keeping you up to date as that changes so that the information that we're returning is always up-to-date and correct.

So that's one element of what we need to do to keep on top of it. But then there's also all the data science challenges that come along with that, on top of just making sure that we're up to date in terms of case law. Being able to deal with multiple documents that are packaged as one document, being able to deal with people who are replying within the chain of an email, you know, there's all sorts of quirks that initially seem like they might be edge cases that come up, but might not come up most of the time.

Whereas obviously when you're looking over hundreds of thousands of enquiries and hundreds of thousands of emails, then you start to realise that the way people talk to each other over emails is forever going to be weird and wonderful!
So being able to handle that on our side is, you know, going to continue to be a challenge. So I don't think we'll ever quite be done with it, but we're certainly getting there.

Astrid:
Yeah. It's the beauty that, as humans, we don't behave like machines!
So, Gemma how has the Innovate UK grant helped you? From our conversation, I think it was about kickstarting the project and the collaboration with the Hartree Centre, that was obviously key in setting that AI expertise that you needed. Is that right?

Gemma:
Definitely. Yes. I mean I can't say where we would be without Innovate UK, but the fact that we had Innovate and we had the collaboration with Hartree, both of those things were probably crucial for this particular project and now product. We didn't have the in-house data science expertise that we needed. We could have got them, but they would have been nowhere up to the level that Hartree were, and we may even have gone down a completely different path. Just to have that concentrated effort I think, we extended the project slightly but it was over a period of nine months initially, and then we pushed to 12. I can't remember the exact timings, but to have a kind of a start, middle, and end, and to have these check-ins throughout was really helpful.
It's good for any start-up, really, to be on a path, to set out at the beginning what you're planning to do. It obviously doesn't always go quite to plan, but to set it out for a focussed amount of time I think is helpful anyway. And Innovate UK obviously helped with that, and we had to document that along way as well.

Astrid:
And looking to the future – so you're now running pilots and engaging with law firms – what's the future looking like? What are your ambitions?

Gemma:
So I'm guess we need to move from start-up to scale up. We are almost no longer a start-up anymore. Since the start of the Innovate project, we probably had five employees possibly and now we've got almost 12 employees. We've almost doubled. Jonny has doubled his data science resource – there are two of Jonny, and Jonny has someone working with him. We have two conveyancers working with us, a product

owner, business analyst, and the developer team we've expanded as well – just because we needed that many people to get this off the ground.

We're looking forward really to continuing to refine the product and get it really good, so that this does help conveyancers without changing much of the way they work. We were never asking them to really change the way they did these enquiries. I think that is an almost impossible struggle and that's why it hasn't been addressed before.

But could they continue to work in the same way they have been and be conveyancers? That's what we want them to do. We never want to take over what they're doing, but help them with this huge admin burden that they have at the moment, and is delaying transactions for both movers and homeowners.

Astrid:

And what support do you think the legal sector needs, in general, in order to modernise and adapt and adopt technologies?

Gemma:

I think we are getting there. That's probably the biggest change. I said at the beginning that we hadn't seen a lot of change in the number of enquiries, and that didn't sound very positive at all. But what we have seen that's been positive, and it's not just us that's doing this, there are lots of companies striving towards the same thing.

We are starting to see a shift in the change in mindset in law firms, and I expect many other sectors as well in that they realise that they need to change and to stay ahead, be competitive and make the lives of their staff as good as they can be, they are going to have to adopt some technology, and it is there to help them it's not meant to be there to hinder or to take over their jobs as well.

And they're starting to get more curious about how this could help them – in terms of how types of technology could really help, and how we're meant to be partnering with them. We're not against them, we're not there to take their roles. It's our aim to help them. But we're starting to see a shift there. Positive change, I would say. And it is really nice – we're having some great conversations.

Astrid:

Brilliant. So, we ask a final question to all our guests, and it's around any piece of content that you'd like to recommend to our listeners to help them understand the topics that we discussed today. So it could be a book, a report, a video or even another podcast. Is there any useful piece of content that you'd like to share?

Gemma:

So probably on our side, if anyone wanted to know more about conveyancing – and it is genuinely useful if you're a home mover or you're interested in this sector – there's an independent media company called Today's Media. They publish lots of different articles, books and podcasts. So that's probably you're most varied range of things on our side.

I'm going to refer to Jonny and Rob on the data science side, though I know Hartree have got lots of resources available.

Rob:

Yeah, I'm going to be cheeky and I'm going to pick two things. One of which is our resources. We have a lot of case studies available on the work that we've been able to do across the sectors from AI through software engineering, high performance computing. They're available on our website. We also have free training as part of our Hartree National Centre for Digital Innovation, from cloud engineering to machine learning, data science. If you're interested in becoming an expert – or you're already an expert – we should have something for you.

Outside of Hartree, something else that I really like is a blog by the Ada Lovelace Institute, who are an independent research organisation that does a lot of work on AI and society. So I think there are a lot of resources out there for the fantastic technical achievements that you can get with AI and I think actually really good sources of how the socio and technical meet and come together is almost more interesting. And that's a really good resource for that. They've got a blog and a newsletter that I'd really highly recommend.

Jonny:

I'll come at it from a different perspective and say in terms of the layman, maybe the non-data scientist, I would say just make sure you subscribe to one or two AI or data science related newsletters. Because the pace at which this is all changing, any specific resource that you refer someone to, a blog or something like that, is constantly updated. It's more likely going to be out of data in six months' time or so. So, I think it's really handy to keep your finger on the pulse just to have like a daily newsletter, just to see what's new in terms of what the latest language models can do.

Even just in terms of, if you think about ChatGPT, Claude and what have you, very recently you know, you couldn't throw a PDF at these things and be able to talk to it – and within the last three months that's doable. You didn't used to be able to ask what the weather was on that particular day but now they can access that as part of the free models that you have access to without having to even pay a subscription. It can do all of that and if you weren't aware of those new features coming out, then you might not be using any of these tools to their full ability. So I would say it's always worth keeping your ear to the ground in

terms of what's new just in these general tools because there's probably a lot of information and a lot of time saving that could be had, that people aren't even aware is available to them for no money. Obviously, just with the caveat of 'be careful what you put into language models'. Please don't go putting in anyone's personal data and what have you. So, always be wary but keep up to date.

Astrid:
Yes. Thanks, Rob. Is there any newsletter in particular that you would recommend?

Jonny:
Yeah, mine is just AI today. Very simple one.

Astrid:
Okay, great. Thanks. Thanks so much. Thank you, everyone for joining a podcast. And, till next time.

Animation:
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