Learning Uncut Episode 112
Working with xAPI Data – Siva Kulasingam and Andrew Bloye
Hosted by Michelle Ockers

Michelle Ockers:
Siva Kulasingam, the Digital Learning Manager at Coles, believes that "data is a beautiful thing." He joins me with Andrew Bloye from ClearXP to discuss how his team is working with xAPI data after implementing a Learning Experience Platform (or LXP) and Learning Record Store (or LRS) several years ago. We discuss how both guests think about the learning technology stack and the case to invest in both an LXP and LRS so that you can work with xAPI data. Are you still with me? There's a lot of jargon in there! Stick with me if these terms aren't familiar - I do my best to get a clear explanation of these technical terms before we go deeper on how to effectively work with xAPI data, drawing on the rich experience of both guests. There are lots of resources in the show notes for further exploration.

Michelle Ockers:
Welcome back to Learning Uncut, Siva. It's nice to see you again.

Siva Kulasingam:
Thanks, Michelle. Thanks for having me back.

Michelle Ockers:
And Andrew, welcome.

Andrew Bloye:
Thanks, Michelle. It's great to be here.

Michelle Ockers:
It is. And you're sort of the reason that we're here, Andrew. So I've been curious about xAPI for a while. I'm kind of always hunting around saying, "Where are the good examples of how xAPI's actually being used?" 'Cause the standard's been out for quite a while. How old is the standard, Andrew?

Andrew Bloye:
Yeah, 2012, 2011 I think it came out. So it's been around for quite a while now.

Michelle Ockers:
At least 10 years.

Andrew Bloye:
Yeah, at least. Yeah. I would say so.

Michelle Ockers:
Yeah. I thought it might have been longer. 10 years. Let's go with 10 years.

Andrew Bloye:
Oh, well. Yeah. There's not many things going on in the last few years. It's hard to keep track, but I would say at least 10. Yes.

Learning Uncut Episode 112
Working with xAPI Data – Siva Kulasingam and Andrew Bloye

Michelle Ockers:
Yeah. It's one of those things that seems to hold a lot of promise for learning and development, but it's taken a while to start seeing that come to fruition. So I put a post out on LinkedIn just out of a little bit of a sense of frustration, I guess, a couple of months ago to say, "Has anyone got any really good examples where it's made a difference and helped an organization to really lift L&D and maybe even start linking to business impact?" And Andrew, you commented, "Hey, we do this every day."

Andrew Bloye:
Yeah.

Michelle Ockers:
So here we are. And we've got Siva, you've come back, Siva. I'll put a link to the first conversation we had around some innovative work you did around mobile-enabled learning with Rod Beach from Liberate Learning. So Siva, let's start with an introduction. You are from Coles, so introduce us to Coles again and to your role.

Siva Kulasingam:
Sure. I'm the Digital Learning Manager at Coles, essentially looking after all things digital learning from our platform to our content and our providers that help us develop that. And I've been with Coles for about five years now and Coles is an organization, I'm sure most of you are aware of the brand got about 120,000 employees. So the volume and the size of the business really is at another level to most organizations. And yeah, we had quite a lot of challenges to overcome I guess from a learning perspective in terms of how we wanted to reach and the type of experience we wanted to provide our team members.

Michelle Ockers:
So Coles will be a household name to Australian listeners but perhaps for our global listeners, you might want to just talk a little bit about who Coles is and what you do.

Siva Kulasingam:
Sure. So Coles is a... Coles Group is predominantly made up of the supermarkets business. So that's in most suburbs across Australia. We've also got the liquor business and Coles Express, which I think we've just recently sold off as well. We also got our distribution centre and head office. So all up, as I mentioned about 120,000, the biggest brand being the supermarkets. We've got over 2000 sites if you count everything. Yeah, and that's... Yeah, that's quite a lot for us to look after.

Michelle Ockers:
It's certainly one of Australia's largest organizations. And Andrew, ClearXP doesn't have the scale of Coles but it's an important organization in its space. So would you like to introduce us to your organization?

Andrew Bloye:
Yeah, so ClearXP, we've been running for... Well, almost the same length of time as xAPI and I think the coincidence... Well, it isn't really a coincidence because we decided that we'd start and so I'm the managing director and co-founder, co-founded the company with David Johnson, my esteemed colleague. And we started the company back in the early days once xAPI became available. Before that we were working in new learning and content development and we kept on encountering roadblocks, trying to do some kind of really creative things, particularly back in the mid 2000s, 2010s we were trying to do some really creative multimedia learning development. And we would encounter roadblocks when we tried to sort of launch it and release it. And often that was because of the infrastructure that was available at the time, which is fair enough, the old SCORM standard.

Andrew Bloye:
So some of the things we were trying to do content-wise, well, the restrictions were there. XAPI came along and we saw that those restrictions may well be now removed. So we thought what a great opportunity to start our own platform that supports that standard and enables those types of things that we were looking for, looking towards doing.

Michelle Ockers:
Okay. So we're going to come back and talk about xAPI and what it offers. And we're also going to talk about LXPs versus LMSs, stacks of jargon being thrown around here. I used to be in the military and we used to have this saying TLAs. A TLA is a three-letter abbreviation. So lots of TLAs being thrown around here. But let's talk about... Here's a phrase, Siva, I know you may take objection to the learning technology ecosystem. And I was going to ask you a question about why you wanted to update the learning technology ecosystem at Coles. But I know it's not a phrase that you find particularly comfortable. So let's start talking first about, kind of, philosophically about how you think about learning tech and then we can move into what that means for Coles.

Siva Kulasingam:
Yeah, sure. So if I think back to about five years ago when I first started, I was at a point where at an industry level, I was getting quite frustrated with what we could do from a... With an LMS. And I found that the struggles that I had from my previous company to then moving to Coles were very similar. Especially when you talk to large corporates, that's... You keep running against the same problems that Andrew keeps talking about. And the narrative at that time, I recall as well was that this whole concept of a learning ecosystem. And whilst that made sense for a bit, I actually didn't buy into it because for me, I just didn't... If I put my, a learner's hat on, no one walks into an organization and goes, "Right, let me start the day with looking at my learning ecosystem and accessing content across several different platforms." For me, that doesn't sound easy, seamless, and a great experience.

Where there is a caveat I would apply to that is that if your organization has got a great knowledge management approach system, then absolutely you want to leverage that. But by far, when I hear learning ecosystem, it just really was a way in which we coined that term to kind of mask, I guess, some of the issues where we knew we couldn't really tap into other kind of platforms or we had learning dispersed all over the place. So I think that was the challenge and that's why I didn't really buy into it. And for me, actually, we want to kind of keep it central. We want to kind of keep it easy, but we can share the content within the platform. But the moment you start losing and moving your learners across different platforms, it becomes a challenge in my opinion. And you only have the time...

Michelle Ockers:
What about the trend now that we can connect platforms more seamlessly, so we can still provide people with a single place where they go to take stuff off the shelf, if you like, or to access things, there's still one front door, but at the back end you might be using more than one system. What are your thoughts around that as an approach?

Siva Kulasingam:
So yeah, I'm all for a technology stack. If that allows it, but what was talked about previously as an ecosystem was actually having multiple touch points and sending the learner off to different places. And that's something that I don't think is a good experience. With your technology stack as well, you've got to be conscious of things around data flow, delays and timing, break points. So it comes with its own challenges, but definitely is a better way of approaching it than just having a plethora of things out there.

Michelle Ockers:

Learning Uncut Episode 112
Working with xAPI Data – Siva Kulasingam and Andrew Bloye

Yeah. So Andrew, you work with a range of organizations, around learning tech. What are you seeing as patterns in how we think about an approach learning tech as a profession?

Andrew Bloye:
I think there's definitely a trend towards consolidation. Because you mentioned LXP, I think that was a technology that was introduced as an adjunct to LMS. And often that was because LMS was the thing that was entrenched in an organization. And to get a more experience based, user centric based approach, similar to what you're talking about where you're aggregating content from multiple sources, which is often a, that's a function that LXP will perform. So the content aggregation part of it all kind of sat on top of, so to speak, the LMS. Whereas now, there's LMSs that, or the technology kind of embraces all that functionality within the one place. And some technologies now are even starting to incorporate elements of HR functionality like performance management and things like that as well. So there's a bit of a shift towards that.

Andrew Bloye:
Some of that has occurred with large players acquiring others who have that functionality to the kind of combining that together. So I think that the ecosystem part is definitely still valid. And I think that's really important where there is a certain part of the ecosystem that is specialist. So if they really want to go really deep into a certain part of that, whatever it may be, may be a specialising in like storytelling or coaching or leadership or whatever it may be, when there's a real need for a specialist skill set that can be something that nicely integrated in. But when there's, with the Coles example for using that as an example, they have such a breadth of learning and so many different things they're trying to do. So having it all in the one place and easily managed by the team was seen as being really desirable.

Michelle Ockers:
Yeah. And some organizations don't have the budget to buy an all-encompassing system. So it's also around context and understanding your context and your needs and what you can afford, as well as whether you can leverage certain operating systems. But I think the principle of start user centric and think about the user experience is a good foundation to build from.

You've used a little bit of jargon there. We're going to unpack that. We kind of make the assumption and maybe all of our listeners do know what an LMS is versus an LXP when we start throwing around those terms. So learning management system versus learning experience platform and the debate about the learning experience platforms being more desirable than learning management systems. Andrew, can you just briefly talk to us about what is a learning management system versus a learning experience platform? And you talked about the constraints of trying to do some of the things you wanted to do with learning management systems, which operate on an older standard called SCORM. So perhaps if you can unpack that a little bit for us and talk to us, for anyone who's not familiar with LMS versus LXP, what the difference really is.

Andrew Bloye:
Sure. So I think that probably going back to the start in terms of what we would call traditional learning platform, going to the early 2000s, even beyond, so that really has been where this standard has come from. So the standard is a thing that we call... That SCORM is, SCORM is a standard that content developers and learning platforms are required to adhere to, to ensure that there is a quality and ensure that the content can be reused. So it saves having just a whole lot of content all over the place that's a bit of a bit of a mishmash. So SCORM is the standard that the content for learning has to adhere to.

So traditional learning management systems, that means that they adhere to the SCORM standard and it gives them certain amounts of data and content that

they can access. And they're the things that are really important to admin teams in terms of dates of completion, attempts and scores and a quiz, those types of things. They're not really... Particularly nowadays, they're not really all-encompassing. They have a limit, and I call them static. They have a limit of the amount of data you can get out of it. And the interaction that a learner has is pretty isolated. It's themselves sitting on a learning management system in their own session just doing their required training.

Michelle Ockers:
Yep.

Andrew Bloye:
So, and the traditional term e-learning or e-learns, they are pretty much all being done on a learning management system and they serve their purpose, as well as doing things like you can schedule and manage face-to-face training events through an e-learning management system as well and a number of other things. Generally, if you're trying to do something that's a little bit more fancy and a little bit more outside of the box, you can do that on an LMS, but it might just require a little bit of a tweak. I won't use the word hack, and then...

Michelle Ockers:
Shall we say a bit of creativity, perhaps?

Andrew Bloye:
Creativity, in today's environment, using the word hack probably isn't the best word to use, but you just have to do a bit of more, little more creativity and things outside of the box. The LMS itself...

Michelle Ockers:
Now, I'm just going to refer listeners to an episode I did a while back with Debbie Key from Forty Winks where she invested, I think it was like $40,000 in, it may have even been less, maybe $20,000 a year in a learning management system. And she talked about some of the things she needed to do, that's all her organization could afford, right?

Andrew Bloye:
Yep.

Michelle Ockers:
And she talked about some of the things she did to improve the functionality of that, that didn't take a lot of tech skills. So I'll just refer people if you're really tight on budget and you've got an LMS and you need to figure out "How do I get a bit more creative around using it?" I'm going to refer people to that as well as an episode I did with James Hardy about some things they did using just Google apps to improve some of the functionality of recording and tracking compliance training. So I guess the point is don't think just because I've got an LMS, I'm completely stuck, be a bit resourceful and creative and see what you can get out of it and how far you can take it, right?

Andrew Bloye:
Absolutely, yeah, that's right. The LMS will want to have the important compliance style records inside of it, that's what it's known for and good for in terms of tracking the really... So you've always got your evidence of completion, in a lot of organizations that's really important, but going external to that there's lot of options nowadays.

Michelle Ockers:
Yep, yeah. So what about LXP?

Andrew Bloye:

That's what... That's an LMS, that's where it's history comes from. LXP probably came about more in terms of thinking about it from, as you mentioned earlier, from a user centric model and thinking about what users are trying to accomplish nowadays in the modern environment. So one of the things that the LMSs do is they often assign learning, and they do that very well, wherein we're talking about a user centric model where on a LXP, a learner might access LXP and explore resources to find some more information. So it's less that they're being pushed things and told what to do, it's more they're given an opportunity to explore and find things that they would like to do. An LXP functionality would be the type of thing where there would be, there could be a library of resources that are available through multiple sources. There could be sources of content, so MOOC type of content, for instance.

Andrew Bloye:
There could be, the LXP could provide a functionality where it provides you recommendations based upon things that a learner has deemed interesting or based upon things that they have completed before or what their peers are. A lot of the terms, a lot of the providers nowadays use AI, that's AI recommendations. So essentially that's just saying that there's an algorithm in there that is seeing what someone's done in the past and has said, "Oh, because you've done this, you might like to do this course." Again, it's based upon there being a repository of learning that's available to them.

Michelle Ockers:
Yeah.

Andrew Bloye: And then it comes, there's more functionality that comes within LXP as well, that is more generally focused around different styles of learning that a learner might do, or different preferences that a learner might have for how they like to access their content more to the point. So it's a more open style and it's more based upon giving the learner more control of what they like to access.

Michelle Ockers:
Okay, so much richer opportunities to support learning in a wider range of ways. Siva, was Coles still using a learning management system when you joined? And so you've transitioned to an LXP?

Siva Kulasingam:
Yeah, absolutely. So we started with an LMS that I think is in the organization for about 14 years, and the opportunity to use the LXP was there through another project and we were able to harness that and make that the enterprise system and actually decommission the LMS that we used to have. Now, it was quite a bold move at that time for us to do that, but it was something that was aligned to our strategy and our approach and what we were trying to deliver for our team members in terms of an enhanced digital learning experience. So because we were very clear in terms of our strategy and our approach, the platform pretty much supports that the providers we work with have to align to that.

It really started creating a path that was quite different, that suddenly became a very exciting journey to be on, because we were tackling issues and challenges that we never previously had to tackle when we were dealing with LMS. So it was exciting at the same time and challenging at the same time. And from a business perspective, I think what they were looking for is, "Well, can you do what a traditional LMS would do? And half the time we had to respond to them and say, "Yes, absolutely and more." And that's what we had to push towards is showing the breadth and the moment we could open up what learning could be and house more assets. It didn't really just have to be in e-Learn, like we just opened up the scope of learning and we were able to then curate different types of learning, share learning assets across different programs and brands that suddenly it became an unblocker and it just made that transition so much smoother.

Michelle Ockers:
I love that idea about being an unblocker, you also implemented a piece of technology called, learning record store, Siva?

Siva Kulasingam:
Yes.

Michelle Ockers:
So do you want to talk to us about learning, if maybe we start with you and then Andrew can add to that. I was going to say embellish, but that probably isn't quite the right word, Andrew can expand on that or deepen that as appropriate, what is a learning record store and why did you need one?

Siva Kulasingam:
So part of moving away from SCORM and adopting the xAPI standard in order to track the data that's coming out from the xAPI statements you needed a learning record store. Now that's traditionally a backend system, more like a repository of data. And in this instance, what we did was put in the LXP layer on top of it, so what meant that we were able to now track user experience interactions on the platform along with what they were consuming in terms of content.

Michelle Ockers:
Okay, xAPI statements. I think this might be the last piece of kind of technical jargon that we might need to unpack to move forward with the conversation, you talked about xAPI statements, then what's an xAPI statement? Andrew.

[laughter]

Andrew Bloye:
In a podcast. You can't see the... Siva just pointed at me.

Michelle Ockers:
Siva did just finger at you next to him on the window. So yes, Andrew.

[laughter]

Andrew Bloye:
Okay, so the, we talked of the about SCORM before and SCORM being the step, having the way of standardising the content and the data that comes from our learning experience learning such as an e-learning course. So all xAPI is really, initially it was called Tin Can, and it was produced by the same people who produced SCORM. So they were a body in the United States. IDL and, Rustici are the people who joined forces to produce these standards. And xAPI really it's, the next iteration. So SCORMs had like two or three versions from back in the day, and they could have changed the version a few times, but xAPI is kind of like, they just took a gigantic leap and said, Okay, the future of learning isn't going to be these static single experiences that a person has sitting on their computer by themselves.

Andrew Bloye:
There's going to be more to it. We want to be able to track and see what a person's doing from all angles. So it doesn't even necessarily need to be someone sitting on LMS doing an e learn. It could be that they have gone off and, researched something and they've found some information and brought it back or whatever it may be. So the xAPI standard, when it was released, it's still a standardized way of tracking and finding data, but it's vastly different and much wider and broader, and how the data is tracked and

recorded is using these things we call statements. So how I see it is like, Siva did mention the word before and I use it to talk about it in terms of way that a learner has a learning touch points. So things that a learner accesses and users, everything that a learner accesses and uses can send a statement back to your LRS saying such and such has done such and such. So with the traditional ones would be answered a question or responded to a thing or, but it could be posted a comment, it could be uploaded a video, it could be answered a survey question, it could be spoke to a manager. Because now with xAPI it's not just about the single response, the single experience someone has with an e-learn it's, it could be multiple people having an experience against multiple things. It could be peers interacting. It could be the flow between a user and their manager and backwards and forwards.

Michelle Ockers:
So does it have to be something that is undertaken through and enabled by your learning tech, by your learning experience platform, for instance? Or could these statements be tracked on other technology platforms?

Andrew Bloye:
They can definitely be tracked on other technology platforms. Essentially, there always needs to be a point back to the LRS though.

Michelle Ockers:
Right.

Andrew Bloye:
'Cause the LRS is the SIM central point. So if without that, you kind of lose track of what's happening.

Michelle Ockers:
Okay.

Andrew Bloye:
But, and it does need to be planned. You can't just sort of go, we're just going to try and just be open slather. There does need to be a plan, but the plan is much more open and much more wide than what we'd ever used to be able to do using some of the traditional technologies.

Michelle Ockers:
Okay. So the LRS is the home, the repository for all of these activity statements tracking a much wider range of learning activities than just, going through e-learning programs and formal training courses. Siva, it's really daunting to go and engage with the learning tech market to find platforms, right? There are so many platforms out there, even if you're just talking learning management systems or learning experience platforms alone without considering other types of learning tech. And I'm going to put a link to a recent podcast by Josh Bison doing a bit of an industry tech wrap. And it is just mind boggling. The explosion we've had in tech recently. How did you go about selecting a learning experience platform and a learning record store? How, how do you go out to market and make wise choices? What did that look like for you?

Siva Kulasingam:
I think to your point around, in this day and age, yes, it's kind of the market seems to be a bit flooded, so you really... It's hard to tell one between the other and what's good and what's not good, they all have their strengths and they equally also have their weaknesses. So coming back to your earlier point around, context in the organization, what you already have existing, what problem you're trying to solve, all of that absolutely

critical before you go out and select a platform. But if I kind of rewind back to five years ago, there actually wasn't many that's out there. I think it was sort of at the point where you were starting to see a few platforms, play that role like Degreed. And there were a few other known players, who were sort of in that arena, but not many.

In our case, we were very clear around some of the things that was non-negotiable. So having the data stored locally was absolutely critical from an IT security perspective, and most of the LRS providers at the time were US based. And so, ClearXP were really, one of the few at that time who were able to work with us based on our requirements, based on the brief. And although it didn't have all the components that we were after, we were quite confident that we were able to build it over time. We were able to scale over time. And I think that was probably, and maybe it was just my personal frustration with elements that I said I'll try anything, right? [chuckle] And I was prepared to go start with a clean slate and see what we can achieve, which, comes with risk, comes with challenges, which we've learned along the way. Not to say that we've solved everything.

And I think the other consideration was at that point when people were talking about xAPI, they were talking at a single project basis, right? So if you did a piece of work. Yep, you could introduce the learning record store to kind of support and get the data, and the analysis and that was the end of it. Whereas we were, we had a very different mindset and approach in terms of, we were looking at xAPI and being data driven at an enterprise level. And so no one really actually could tell us what you needed to do or how you would go about doing it. So we kind of felt that we were learning along the way, asking the questions and addressing the challenges and the issues as we encountered them.

Michelle Ockers:
Okay. So it sounds being really clear on your requirements is the first step, is fundamental. You've actually purchased your LRS and your LXP from the one supplier, right? From ClearXP, is that right?

Siva Kulasingam:
Yes.

Michelle Ockers:
But you don't have to if you're going out to market, you can go to separate sources for both of those. Are there pros and cons in your mind for engaging with one supplier for both of them versus shopping separately for them?

Siva Kulasingam:
It really comes down to what's going on in your organization, the context, and what you're trying to solve for. So you may actually have a really good LMS, good LXP and it's just the data problem that you're trying to solve and you want to actually embark on xAPI, then yes, you would go out and actually just look for a LRS that could do that or you might want to start fresh or you actually want to put the LXP layer and not so worried about the data component of it. So it really depends on what's working in your organization, what's not working in your organization. Yeah, it's hard because the variability is pretty significant across organizations.

Michelle Ockers:
Yeah. Yeah. So Andrew, when you started working with Siva and with Coles on this initiative, what were the key design requirements and were there any particular challenges or drivers for the solution from your perspective?

Andrew Bloye:

I think that some of the... Siva touched on them before, which were... Because from the... We started off being incredibly strong with the data. Data was always going to be being an LRS at its core and supporting xAPI as we do. We don't support it, we embrace it. We are it. So there was always going to be the strength. There were some considerations in terms of matching the need for some of the face-to-face requirements at an LMS. And at the time face-to-face training at Coles was prevalent, to say the least. So and the requirements for tracking face-to-face events were very complex because of the nature of the workforce being so broad and having such diversity. It just needed really robust solution for tracking face-to-face events because the digital side, yes, we were very confident about that already. We had a really good solution for that. It was the face-to-face and digital side of things that we needed to really nail for in the design of the solution for Coles.

So a great deal of effort was put into that to make sure it fit the need. And it's one of those ones where you work with a good partner like Coles were able to create iterations over the journey. Do the user testing together. They'd give us fantastic feedback, concise feedback. For those who haven't experienced yet, a whiteboard session with Siva is something to behold. Seeing the whiteboard that [laughter] you can unpack. So getting those kinds of things to understand all the variations and all the levels that you need in order to be able to reach the depth of functionality that's required. I would say over the journey, that was probably one of the bigger design triumphs we had, because we certainly were able to do it. But yeah, it took a while to get there.

Siva Kulasingam:
Just to be clear though, the whiteboard is equivalent to me playing Pictionary, that's...

[laughter]

Michelle Ockers:
You move things around a lot, do you Siva?

Siva Kulasingam:
I like to... As you know, I like to talk in my hands and sometimes... I'm a very visual person, so getting up on a board and just drawing concepts out and which a lot of times makes sense in my head, but perhaps not with others. But getting it out there just helps everyone just kind of get on board or actually work on it.

Michelle Ockers:
Yeah, it's so interesting, isn't it? Because when we work with tech, how do we design and how do we get a common understanding of what is being designed? And if I think back to my time in the Air Force working on capital projects, I've worked on the introduction of a new fleet of aircraft into service for the Air Force and you get these reams and reams, like hundreds of pages, long specifications, engineering specifications, and you'd read them. And you know sometimes we put things in writing and we specify things in writing or say it's going to do this, this, and this. And I don't know if you've seen, there's this famous little cartoon, I'll see if I can find it, pop in the show notes of a swing, the design of a swing. It's like a take on project management and stakeholder engagement. And it's got like about eight different pictures of what the end user wanted, what the designers designed, what was actually specified and they're all different.

Because words are really hard to interpret. So this whole thing of... And I'd be curious around how you guys work through this together. Obviously drawing things, prototyping, testing, a lot of early testing, these sort of things can be really important to make sure we've got common understanding of the requirements and the designers that involved. So maybe if you can talk about how you work together to make sure that every step of the way you had

kind of common understanding and you were moving closer and closer to a solution that was really going to work?

Siva Kulasingam:
Sure. So I think like for me, when we talk about a new piece of functionality, it's a very exciting opportunity. 'Cause you can think about all the possibilities you can deliver. But actually stripping it back to what we want to achieve out of phase one in the first iteration, what are the principles and the rules that it must do is really important. But then also having a sense of what the potential opportunities are and how you would scale up to that is really important to also articulate in that session, because we are not building in isolation. Just that one product, that one piece of functionality, it's building it with the view of it scaling up to do more. And until you actually have that conversation up front, people are not going to understand what you're shooting for. I always talk about it in the concept of are you building a house for five people or are you building a house for 20? And if you don't actually articulate that upfront, you'll end up with something that's really pegged you in a corner. And the ability to then scale is going to be limited.

And if I reflect back to all my previous LMS interactions, that's typically what it was. You were really just trying to squeeze out a little bit of functionality to get a little bit of progress, whereas here we were actually dreaming for what would be the potential instead and then working backwards to go right. Let's just focus on this. Let's deliver this, let's get it right, test it with our users, and then we'll come back and address that in the next iteration. Andrew?

Andrew Bloye:
Yeah, I would agree. And I think that having the ability to be able to do those, not being scared to fail in... But fail in a safe way if that makes sense. So safe failing. So trying a bit of functionality and seeing how it works with within a test group and saying, "Oh, you know what, that wasn't... That didn't work all that great." Let's learn from that. Let's get the feedback, let's release the next iteration. And that's really hitting the mark and that's really what we were looking for. Obviously it's a fast-paced environment, so you don't have a lot of time to be able to do that. But being able to sort of confidently come back with really strong feedback and incorporate that feedback into your next version has always been something that we've really been really inspired to do.

Michelle Ockers:
Yeah, and...

Siva Kulasingam:
I think the way we... Sorry, I was just going to add, the way we've now... The way we operate now together, is that literally we have those white board sessions where we talk about what we want to do. We lay out our requirements in terms of what we want here and now and what we potentially would look for in the future. And rather than sending the team off the grid and build it. Actually now what we put in place is a playback session where we actually give them time to go reflect, think about how they want to do it, come back to us and we agree on it before any development work starts. And those sessions really become critical because it's that whole communication and feedback loop around if you understood what my needs are, or actually they've had time to reflect on it, and will go about it in a different way. And most of the times we find that those playback sessions are a lot more powerful because it actually consolidates our thinking. It shows a way forward rather than just be drawing on boxes.

Michelle Ockers:
Yes, yes the playback is really important, right? It's almost like paraphrasing when someone's communicating something to you.

Siva Kulasingam:

Absolutely.

Michelle Ockers:
Let me make sure I've understood that. Let me play it back to you. I think that's critical. And of course Andrew, it takes... To bring out the best in you as an external partner it takes a customer who is accepting that if you're trying something, new it's not always going to work. And that's a good thing because you're making more rapid progress than just playing it safe, right?

Andrew Bloye:
Yeah. Oh, look, there's always a point where it absolutely has to work.

Michelle Ockers:
Yes.

Andrew Bloye:
So [laughter] otherwise known as going to the audience, but that's a challenge that you take on every time because you know that you're accomplishing something amazing. So... It's worth it.

Michelle Ockers:
Yeah. Okay. I want to, and I know there's a whole stack of stuff we could talk about with the learner experience and the LXP side of things, but it was my curiosity around xAPI data and using xAPI data that triggered the conversation. So I want to really focus in on that for the next part of the conversation. So you described how you've got the LRS it's gathering statements. Is it gathering your statements Siva predominantly from your LXP or are you also gathering statements from places other than your LXP to go into your record store?

Siva Kulasingam:
Predominantly in the LXP. So any activities or anything that we create. As Andrew mentioned earlier, if you're wanting to get data out of external systems, you need to actually establish that connection point. And sometimes it's difficult and sometimes it's probably not worth it. So if we were linking something out to an external document or a TED Talk or something like that, we don't really need to know what happened that way. As long as we know that they've actually started their journey and went out there, then we know that's happened. So predominantly that's where it is. Obviously there is the opportunity to connect to any other systems, and if we can do it internally within the Coles infrastructure, then great. It means then we get more data coming through.

Michelle Ockers:
So how do you use the data? What do you do with it? How does it help you?

Siva Kulasingam:
So we... Predominantly we look at the data in terms of... So data is a beautiful thing, right? So that's my starting point, right? [chuckle] It's always better to have the data.

Michelle Ockers:
I think I'm going to quote you on that. Siva [chuckle], "Data is a beautiful thing." I think that has to go on the artwork with your quote this time around.

Siva Kulasingam:
Thank you. I say that many times. We look at the data in terms of understanding. What are learners doing? What is the content doing, and how are they interacting on the platform? So as I mentioned before enabling xAPI at a enterprise level has got a

whole range of challenges. Now, it doesn't mean we are analysing every single statement that comes out of the platform, but it gives us... So if there are like single activities or modules or e-learns or whatever, that helps us a lot with... If there are any failure points, break points, query management. If there are any issues we know we can dive straight into the data and figure out what's going on.

And it's coming really handy to answer a lot of questions. If there are any audits or anything like that, we've got the data there. But where it really becomes quite powerful is when we start looking at it from some of the flagship programs that we run. And some of the bigger programs, if you're supporting bigger initiatives like sales or service, we are able to actually have... In order to do that, what you actually need is a data mindset where you're actually starting to plot out what are your measures of success before you go into that program to understand right, what does success look like? Understanding what are the lead indicators and the lag indicator. And how do we know what's... How do we sort of plot that throughout the course of the learner, doing the learning, completing it and actually achieving the business outcome or seeing that translate into performance.

Michelle Ockers:
Could you bring that to life with an example? We've talked about lead indicators, lag indicators, learning metrics, business metrics. Have you got an example you could use to just explain the different types of metrics and the relationship between the metrics?

Siva Kulasingam:
So, yeah. So if you are working with your traditional LMS, it's just learning completion. So as soon as someone's completed a learning, we hope and pray that we would see some result in about three to six months' time or something like that. Whereas now with xAPI, we are able to actually break that up into different parts to say, Well, not just doing the learning, how well have they responded in the assessments, have they engaged from a social perspective? You know if we've put out social... How well if they engaged and provided user generated content. So we cannot just see learning in terms of completion but learning in terms of engagement. And then from there, looking at, well, if we are seeing all of these behaviours, then what does that look like? And how does that translate into success? So typically high levels of engagement would mean that they're absorbing more, they're learning more, which means we can't see that translate into performance. But then on the performance side, you've got to have that conversation with businesses go well. We can't wait three months, six months to know whether we've hit the sales figures or we've hit the right service levels. How do we...

Michelle Ockers:
Yeah 'cause it's like a hypothesis you're working with at this stage. Your hypothesis is that people are engaging more with the material. If people engage more with the material, then their performance will improve by more. So we think almost everything we do, I think Trisha had said this to me once on the podcast. Let's think about everything we do as an experiment and how are we going to test that experiment. So what happens then when you're trying to look at performance and what happened with performance?

Siva Kulasingam:
So performance is like I said, you also need to get the business to break that down into also before you get your final results, what are kind of the results before that? Is it daily, weekly sales results? Is it certain components that contribute to the sales? So the correlation of that kind of final business outcome that you're aiming for needs to be broken down for us to then hook in our kind of learning engagement along the way to understand if that's providing the right outcome.

Michelle Ockers:

Right. And you need to be thinking about... You need to be designing for this right up front, right? Understanding what's the performance data that's going that... What's the business need? How are we going to know what's... Whether we've been successful by shifting something in the business. So that's the performance consulting piece up front before you start designing, right?

Siva Kulasingam:
Absolutely.

Michelle Ockers:
And then looking at what is the performance data saying. How do you bring the learning data from a learning record store together with the performance data? Do they physically come together? Are you looking at the two of them as separate data sets, but trying to look for what's happening in both those data sets and how can we have a conversation about that? How does that work? How do you bring them together?

Siva Kulasingam:
Yeah. So for us we typically would connect it up to any data visualisation tool. So it could be Power BI or Tableau or anything like that. So that for us is easy. We've really kind of establish that. The challenge is always on the business end in terms of trying to get that data to come through as well. As soon as that's established, we're able to now present that in a way that's a lot more meaningful and impactful. So the... To your earlier point around the business results, a lot of times the consulting that we do, if the business are not able to articulate their metrics, they probably don't know the problem well enough.

Michelle Ockers:

Yes, I agree. I agree. And power to us, if we can be in a position to have a really solid conversation with them before just taking the order. So I think there was a skip missed in there somewhere, Siva, so you started talking about Tableau and Power BI. So your LRS is not where you do the analysis. It's not an analytical tool, it's a storage, It's like a warehouse for your data, right? It's somewhere you store your data. You then have to have a way to analyse the data, to look for the patents.

Siva Kulasingam:
We can do it. So if it's just learning metrics, it's got the ability to do the analytics within the LRS itself.

Michelle Ockers:
Okay, great.

Siva Kulasingam:
But if we want to start correlating with other results and you want to bring in other data points that's when something like a Power BI comes in a bit handy.

Michelle Ockers:
When is that worth doing?

Siva Kulasingam:
Like I said, probably for like your flagship programs especially the ones that the business is investing a significant amount of money, if they're really looking for a significant uplift, that's really when you would do that because it's really important. Again, it's to articulate what are the measures of success, which then kind of goes down to that whole problem and problem definition.

Learning Uncut Episode 112
Working with xAPI Data – Siva Kulasingam and Andrew Bloye

Michelle Ockers:
Yep. So Andrew, do you have any comments around any of that kind of how Siva described working with data and whether that's kind of typical or whether there's other ways you've seen organizations work with their xAPI data?

Andrew Bloye:
Yeah, I think Siva's point about the flagship programs is accurate. Definitely when there's a requirement to bring in the data from an external source, like a performance management platform, then the... Putting it together into the external reporting tool is a good idea because like, I think we've mentioned it in the past getting data from a performance management tool isn't always straightforward and doesn't, and more to the point, I think it just doesn't really necessarily marry up nicely with the data you get from default from a learning perspective. I think from our point of view, we are working with, sometimes it's nice working with smaller 'cause we love working with the big clients like Kohl's obviously but working with smaller clients they're a bit more agile and aren't necessarily as tied into a style of data from their HR systems.

And when we can actually start collecting performance and KPI data as xAPI statements, that's when some real magic happens in terms of data correlation because you can actually start to marry those up together in the one place. And it starts with learning data being the driver, and then being able to correlate that with what's happening in performance. So that's something that's taking place at the moment and would be something that will happens more in the future. But again, it's more when it's a smaller, more agile organization that isn't as reliant on having their performance-based data in a different space.

Michelle Ockers:
Yeah. If we think about working with data and being able to work with data, there's just about any kind of industry benchmark or industry report you look at at the moment looking at skills in learning and development. We see that there's an acknowledgement that we need to be good at working with data. And we often say there's a data analytics skill set that we need to build, but it's often down the bottom of the long list in terms of what are we actually good at. Siva how do you think about the skill data analytics? Describe that skill for us. What is the skill of data analytics for learning and development?

Siva Kulasingam:
Oh, I think there's several layers to it, right? So I look at it more at the strategic level in terms of how we correlate the results. How do we ensure that we are actually correlating the right data points to tell the right source? So it's, really that the end goal is to be able to do storytelling with data. Like, that's really what we want to get down to. It's not about throwing graphs and numbers and charts and all of that. It's like, well, what is the impact? The so what behind it? You know, is it, what insights are we drawing and what action are we taking as a result of that? So I kind of look at it from that perspective. If we can't do that, then all we've done is just collected a lot of data for the sake of it.

Michelle Ockers:
Yeah.

Siva Kulasingam:
But underneath all of that, you need to have more skill sets. You need to have the people who can do the analysis, who can do the correlation, who can draw it up, who can standardized, and, the feel of data scientists, I think is, it's growing for that very reason. And for me, like if you see it across the board, like most industries are adopting it, but we still struggling to kind of get to the point where it is part of, innately part of our skill set. Do you know what I mean? And so sometimes I have to lean on others for that kind of deep analysis because I haven't got the capacity or the resourcing to do it, but we

actually need it because that's, what's going to surface what we are looking for as outcome, insights, and actions.

Michelle Ockers:
Yeah. So a big part of the skill set, as you say, is not just the number crunching, if you like, or the ability to work with the numbers and the data at detail, but also the insights, the so what and being able to ask good questions and have smarter conversations as a result. So, Andrew, if you think about, organizations that you've worked with where the L&D team has built up their skill set, working with data, how does that happen? How does an L&D team build up its skill set to work with data effectively?

Andrew Bloye:
Well, I think that they need to have a focus on it, to begin with. So one of those ones, it's because with how I see the data as well is that you can either have, we mentioned it before, a hypothesis on what you expect to happen, and then you can gather the data that's going to support or disprove what your hypothesis is. Or you can have your vast collection of data, like a LRS has multiple billions of statements in it, and then you need the skill to be able to sift through that and then identify what may be meaningful or insightful. So data scientists are fantastic at that. AI is being used to do those kinds of things. Those types of things are amazing.

Michelle Ockers:
So do you think AI is going to help us leap frog over, Oh, we all have to be data scientists. You think the AI is going to get sophisticated enough in the near future, that it's going to be much easier for us to work with?

Andrew Bloye:

I think it can. You still need to know what you're looking for. So, Siva mentioned before there's a way of profiling learners that Coles uses and that uses an AI algorithm to go through the data and pick up key factors that then classifies them in certain segments, as to how they approach and access learning materials, and that sifts through millions of statements in order to be able to, you know, provide a nice view of what a learner profile may be. So I think that it, I hope it is because I think is a really good use of AI, if it can be smart enough to start identifying what some insights or some things that a business may really benefit from, then absolutely, I think that AI, that's a really good use of AI and it's already been done.

And there's... I hate to admit it, but the kids coming out of uni are so smart, and they've all got these science, computer science and analytical degrees, or even they've gone and done a short course in data analytics, and they come back and they've got so many ideas about what they can do with data, things that I wouldn't have even thought of.

Michelle Ockers:
Yeah.

Andrew Bloye:
So, I think the skill sets are there. I think from a L&D team's perspective... Look, I think that often the case is that we're either somebody who is targeting on the skills and the people. So having, analytical skill set is probably tricky. Or we're generalists and we do a bit of everything, and that's something that maybe we can pick up some understanding of what, data can do. I think that's probably the key thing, is to know that data can provide a lot of information, a lot of insight, and then know where to look in order to find those specialist skills.

Learning Uncut Episode 112
Working with xAPI Data – Siva Kulasingam and Andrew Bloye

Michelle Ockers:
Yeah, I like the idea of working with the people who've got their hands on data skills and just being able to ask smart questions and be able to use the data in, the output in smart ways. So Siva, we've talked about, skill set as one of the factors that contributes to getting value out of an investment in xAPI. Are there any other factors you think are important to get right to make sure that you really do get a lot of benefit out of xAPI if you go down that path?

Siva Kulasingam:
Yeah, absolutely. I think one of the biggest challenges we faced was, you know, standardisation of the data as well within the xAPI statement. So what I mean by that is because we work with a range of content providers, there's a number of authoring tools that already output the content in xAPI, they all have different statements that say the same thing or mean the same thing, right? So the ability to standardized the data, sort of normalized it in a way that it can be aggregated so that we can compare our programs for apples to apples was one of the biggest challenge that I think, we faced when we started looking at data at a price level, right? Because if you're looking at it at, just as a single project, it's easy. You can define it what you want, you can use it. But then when you, start comparing it against other programs and you start seeing the variability in the statements, it becomes a lot more of a challenge to then get that consistency. So that was a big one.

Michelle Ockers:
Yep. Andrew, any other factors you'd add to ensure you get the most value out of xAPI data?

Andrew Bloye:
Yeah, I agree with Siva's point. That's excellent point. I really like being, understanding that or expressing the understanding that you can start to look at ways of tracking data using things like Kohl's is doing it at the moment, using VR as a tool, of a training tool that can be then brought back in and tracked using xAPI. So it opens up your options in terms of what you're able to achieve, which is amazing. But then still there has to come, there has to be some sort of form of standardisation to say if you're using a VR tool, which is amazing, you still need to get that bit of data back into the LRS saying that they've access it in a certain way, but it, the capability is now there in order to do that.

Michelle Ockers:
Okay. So by way of wrap up, one final rapid response question for both of you. What would you tell someone who is thinking about whether to invest in an xAPI platform in an LRS and go down the xAPI path, what would you tell them is the key reason that they should do this? And I don't mind which of you start, so why is it worth the effort?

Siva Kulasingam:
I'm happy to start. I guess for me it was, you know how I mentioned data's a beautiful thing?

Michelle Ockers:
You did.

Siva Kulasingam:
And I come from the place of I rather know than not know. So a lot of times, like if I look back in my career, in L&D we would've done a lot of amazing work, but we still do not know the impact, the level in which you would've made the difference. And it's shifting that dial and moving that direction is why I would say you would do it.

Michelle Ockers:
Great. Thank you. Andrew, what would you say?

Andrew Bloye:
Yeah, I would bring it back to our earlier conversations about the user and being able to make something that is user centric with xAPI and with the touch points that enables you to do, you're connecting the user with everything they need and making it easy for the user to connect and then making it for, easy for the organization to see what's happening. So xAPI really enables that in a way that is really seamless.

Michelle Ockers:
Great. Thank you. We've got lots of good resources to share with people in the show notes as well. I'm going to add something called the Learning and Development Value Spectrum, the L&D value spectrum which talks to that, a spectrum between business value and learning value and how you can play across business metrics and learning metrics as well. I did a podcast interview with Laura Overton some time ago around that spectrum, so I'll pop that one in the resource as well. So lots for people to explore. Thank you both for coming onto Learning Uncut today. We'll pop a link to your LinkedIn profiles in the show notes if anyone would like to follow up with either of you to find out more. Thank you guys.

Siva Kulasingam:
Thank you. Thanks for having us.

Andrew Bloye:
Thanks, Michelle. Cheers.

Learning Uncut Episode 112
Working with xAPI Data – Siva Kulasingam and Andrew Bloye

About Learning Uncut

Learning Uncut are learning and development consultants that work with learning teams and/or business leaders to accelerate learning transformation. We specialise in supporting organisations to create or update their learning strategy, enhance their learning team's capabilities, align learning to business value, and implement modern learning approaches.

We are highly collaborative and pragmatic. We partner with organisations to align learning to their business needs, unleash continuous learning, and build capability to help them thrive.

Learn more about us at our website.

About your host, Michelle Ockers

Michelle is the founder of Learning Uncut. She is an experience, pragmatic organisational learning strategist, L&D capability builder and modern workplace learning practitioner. She also delivers keynotes, workshops and webinars for learning and broader professional or workforce groups at both public and in-house events.

Michelle received the following prestigious industry awards in 2019:

- Australian Institute of Training and Development Dr Alastair Rylatt Award for L&D *Professional of the Year – for outstanding contribution to the practice of learning and development*
- *Internet Time Alliance Jay Cross Memorial Award – for outstanding contribution to the field of informal learning*

Find Michelle on LinkedIn or Twitter