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# How do you deal with student consent when using learning analytics?

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Moderator

Welcome to the Jisc podcast. Learning analytics specialist Neil Slater has been working with a number of universities to help them with the legal and ethical issues they encounter as they implement learning analytics. Here he talks about the important issue of student consent.

Niall Sclater

I've been talking to legal experts and other staff at universities who are trying to implement learning analytics and attempting to find solutions for some of the legal and ethical issues that have emerged. One of the issues I want to get to the bottom of is the area of student consent for learning analytics. A lot of people have taken the concept of informed consent for medical or other types of human research and felt that that should be applied to learning analytics. If you obtain agreement for something but it's not informed or properly understood by the participant, then is that really a valid form of consent or is it actually necessary to ask students for their permission to capture data about their learning activities at all? I've heard some people argue that students have already given their consent for the collection and use of their data by agreeing to existing computing regulations. I started by asking Susan Graham, the University Records Manager at the University of Edinburgh whether she thought obtaining informed consent from students was necessary.

Susan Graham

Well the issue of consent within the world of data protection is something that's often misunderstood and learning analytics it's excellent that the practice is being based upon research but there are some differences. So far as data protection is concerned you don't always have to have consent although you must always tell people very clearly what it is you're going to do with the information and they have the right to object to that. So you don't need to ask for consent for things that people would reasonably expect. So in the case of a

student they expect that we're going to be assessing their work, tracking their marks, tracking whether or not they've handed in assignments. So that kind of tracking is fine. Presenting that in dashboards is fine. That does not need consent. Similarly actually statistical analyses, so long as we've told student upfront that we do analyse information about them for statistics, purely statistical analyses where you can't identify individual students also does not need consent. It's always essential, whether you're seeking consent or not, it's always essential that students are informed, that is that they know what's going to happen and they know what's going to be done with their data and what kind of interactions they can expect to see.

Niall Sclater

Andrew Cormack, Chief Regulatory Adviser for Jisc Technologies is also sceptical about whether it makes sense to ask students to consent to the use of their data for learning analytics.

Andrew Cormack

Saying that you can sort of consent or not to learning analytics is just too broad an idea. What would you say when a student signs up? "Do you consent to learning analytics?" You can't inform them what's likely to happen. If they say no, potentially you both lose out. If they say yes then you're getting kind of carte blanche to do you don't know what. So where I'd much rather prefer to go is one, the data we're talking about is data that universities and colleges have anyway, we're not talking about collecting additional stuff. If you were then probably yes you would want consent for that but mostly it's stuff about the normal progress through the learning research for whatever process, and the use of the data is to improve that learning and education research process. We're not, or we shouldn't be, looking at marketing or selling on the data. So within those constraints I think you can argue that there's an analysis or a pattern finding stage where you're looking at the data and finding out what interesting patterns there are in there. That I think is part of the process of doing learning right, working out how to do it better and can be justified as one of the legitimate interests of the organisation.

Niall Sclater

Now that concept of legitimate interest is something that is part of European legislation and the Data Protection Act in the UK. It means that if an organisation can argue that the collection and use of personal data is part of their normal and legitimate business, then it doesn't need to ask explicit consent to collect or use it. But there's something else here which is important. It's not just about institutions making sure that they stay within the law. It's also about students and staff feeling that they're being treated fairly, and learning analytics isn't some kind of secretive process but it's carried out in an atmosphere of openness and transparency. Dr Sophie Stalla-Bourdillon, Associate Professor in Information Technology and Intellectual Property Law at the University of

Southampton, is keen to point out that learning analytics should be about being ethical as well as legal.

Sophie Stalla-Bourdillon Well I suppose there is the law and there is also the ethics I suppose if you want to create trust as well to be fully transparent and give information. You need to distinguish between being transparent I suppose and getting consent. It's not because you are grounding your practice on the ground of legitimate interest that you don't need to be fully transparent. There is also an obligation of transparency.

Niall Sclater So it's a good idea from an ethical and possibly a legal standpoint too to be transparent about what you're doing with learning analytics, but does that extend to the low level algorithms and metrics that you're using to develop the analytics? Can students be properly informed if they don't understand how the analytics are calculated? I put this question to Dr Sharon Slade, Senior Lecturer at the Open University Business School who has a particular research interest around the ethical issues of learning analytics.

Sharon Slade I think realistically not in huge detail. I think we need to be able to explain the purposes and we need to be able to demonstrate probably in a peer review way that the approaches that we're taking are robust. I don't think we anticipate being able to explain in detail to students and staff how those models work. I'm not even sure I would understand how most of those models work, but we do need to be able to explain what we're doing and why and be able to, I think, demonstrate that the approaches are robust.

Niall Sclater I asked Anne-Marie Scott, Head of Digital Learning Applications and Media at the University of Edinburgh whether she thought it was important to be able to explain the processes, algorithms and metrics of learning analytics to staff and students.

Anne-Marie Scott I think it's useful for transparency. I think we always hit interesting questions when perhaps it's commercial software around explaining algorithms. I think for some of our staff, particularly those who are active in the field or in related fields, a good portion of establishing the credibility of what we're doing can be done by being very thorough in our explanations of these things. But I think that there's a difference between explaining them and being clear about them, and people having to understand them to actually use whatever it is we produce or offer to them. I certainly think that at scale there is no way that you could train up our entire staff and student body in such a way that they could get to grips with the nitty-gritty detail of it. So I think the explanations have to be available, but they mustn't be a mandatory part of using whatever it is that's provided.

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- Niall Sclater                      So we've established that for most purposes in learning analytics you don't need to ask students for their consent to collect their data, though being transparent about what you do with the data is important. So how do you actually make things transparent? Is including references and institutional policies to learning analytics the way forward? How many students read these policies? I don't think I knew what an institutional policy was when I was a student. Susan Graham from Edinburgh.
- Susan Graham                      Giving them a policy is fine so long as the policy is very clear and context appropriate. So it's not enough when a student comes to the university to say within a general matriculation statement, "Oh and we're going to do some learning analytics." That's not informed. The students really at that stage have got no understanding of what that means. Routes that might be more viable, for instance if a particular course is using certain techniques, things like putting that in the course handbook would be a good way of making sure the students are informed. It is very much situation specific. So things like the statistics and the monitoring of progress, it's fine to just mention that generally in matriculation because that's the kind of thing students expect and you just need to tell them about it. If you are offering something like an app that was monitoring location, the point at which you'd need to explain to them what you're doing in detail is the point where they're signing up to use that app. So it does have to be context specific and sensitive to the types of information you're using, and in terms of informed one of the things you have to bear in mind is that the student is in a position and has enough information to understand the significance of what you're telling them.
- Niall Sclater                      The Open University has developed a policy for the ethical use of learning analytics. What's its position on whether students should be asked for consent?
- Sharon Slade                      Effectively they were in a position of informed consent, I think that's what the university would certainly have seen. We have a policy which sets out how we're using our student data. It's in the public domain. It's there for students and prospective students to access, and if anyone wants to register with us there's an assumption that they could access that policy and have full understanding of what we're doing and that would constitute informed consent. I'm not sure that many people would agree that that's a satisfactory position to be in so we're working very hard on improving that position, if that's the position we go forward with, and also looking at whether other positions might be more appropriate.
- Niall Sclater                      And presumably even once you resolve that situation there may be a new use for learning analytics that comes along which might require new consent if it wasn't covered by the existing policies.
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- Sharon Slade                      That's right. We'd have to review existing policies to see if they were sufficient and if not I think that we would proactively expand our policies. We've been pretty proactive I think as a university in preparing our ethical policy. I'm fairly sure that we would do the same if there were issues which we were anticipating. So we're aware for instance that there's EU legislation which might impact and we're considering what the impact of the EU data protection legislation, which will come in to member states in the next couple of years. We're also looking at the Consumer Rights Act and how that might impact. So we're trying to look ahead. Obviously we're keeping a very close eye on what's going on in learning analytics itself outside of the Open University and trying to anticipate as far as we're able how that might expand. But at the moment we're undertaking a fairly simple approach I think to learning analytics. We're not trying to do anything that's completely radical. We're trying to use it in what we would consider to be sensible and helpful ways to ourselves and to students.
- Niall Sclater                      Now are there any circumstances where you should obtain the students' consent for learning analytics? Susan Graham.
- Susan Graham                      Where you get into realms where you need consent is more intrusive things and things people might not expect us to be doing. At the most extreme there's been talk of things like using location data and linking that in with apps to offer students suggestions like [inaudible 12.35] library and you've got [inaudible 12.37], but definitely need consent because that's very intrusive. Things like monitoring times of logins, monitoring library usage, you'd need to consider quite carefully how you're going to use that data and, depending what you're going to do with it, you may need consent for some of those activities as well.
- Niall Sclater                      So it does look like there could be some potentially more intrusive situations where you should obtain the students' consent for collecting their data. But what about when you want to take some kind of intervention with a student, perhaps trying to arrange for them to meet with a tutor when it looks like they might be at risk of dropping out. It may be okay to collect most of the data about students without their explicit permission, but do you need to obtain their consent to use the data for an intervention like this. Andrew Cormack.
- Andrew Cormack                      I think use, yes. Having found a pattern when you look to see okay which students fit this pattern, therefore we can help them, we can offer them more challenging material, we can suggest they do courses in a different order, whatever, at that point you can inform them properly. You can let them know what the consequences are likely to be and you can give them a fair choice of, "Do you want to be treated as a vanilla student or do you want to be handled in a particular way guided by what the patterns in your data say about you?" I think that's a much better point to offer the choice. It gives more meaningful control.
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It also guides the university I think in its conduct because at that point it has to define the proposed intervention sufficiently well to be able to get valid consent, which is impossible to ask when you don't even know what patterns are going to come out.

Niall Sclater

I wondered if Edinburgh University was letting students opt out of the collection of their data at all or of any of the interventions from learning analytics. Wilma Alexander from Learning Services explains the university's position with her colleague Anne-Marie Scott.

Wilma Alexander

Not really. Certainly again to the extent that we've been exploring data that we have anyway and that we must have anyway, the issue would be around what is done with it and ensuring that the relevant policies and disclosures and so on are all in place. So, for example, it doesn't make sense to suggest that students might opt out of the VLEs collecting data. It's how they work. We can't change that. There's a very strong message from the stakeholders that the students don't necessarily want to have this information pushed at them. They want it to be there and they want it to be available for them but they want to go and check it when they want to go and check it. So the intention would always be to put the data in its place, if you like, to keep it sensibly in context. As for interventions, again it's a matter of existing policy and guidance is there and is adequate for that kind of coverage. Learning analytics in that context is certainly seen as something that supports existing policy and practice. It's not a thing on its own.

Anne-Marie Scott

I think that's absolutely right. I think we have a good range of well-established interventions for different scenarios and we see learning analytics as being another trigger for existing intervention activities, and perhaps a trigger that allows us to intervene in a more timely fashion or perhaps sometimes in a more appropriate fashion, a well-informed fashion, but not necessarily to introduce a whole new set of interventions.

Niall Sclater

That's a pretty important point that Wilma made earlier. You can't physically enable students to opt out of most of the data collection that goes on because it would scupper the educational activities that you're trying to carry out. A virtual learning environment just doesn't work if it can't capture data about how you're using it as you go along. Now there's something else with the Data Protection Act requires you to treat particularly carefully and which might have relevance for learning analytics, that's the collection of so-called sensitive data. What is sensitive data? Susan Graham explains.

Susan Graham

Sensitive personal data relates to certain categories of information. They include things like ethnicity, politics, trade union membership, religion, sexual life, health. In terms of why those are sensitive and others are not, I believe it's because those types of information can lead to people being discriminated

against or persecuted in some way, so it's important that this information is protected.

- Niall Sclater Sophie Stalla-Bourdillon from Southampton emphasises the importance of treating sensitive data with extra care.
- Sophie Stalla-Bourdillon You need to understand why you want to [process 18.07] sensitive data, right? The very high level principle that you should not actually process sensitive data unless you have specific consent and there are other exceptions as well, but if you have explicit consent, that's not the end of the story. You need to put in place all additional and technical measures, in particular to secure the data, so I'm thinking about [pseudonymisation 18.33] of the data and measures of this type.
- Niall Sclater There are some institutions, such as the University of Derby, which have discovered from the student data that certain ethnic groups have difficulties with certain subjects. I asked Andrew if he thought it was acceptable to mine sensitive data in this way.
- Andrew Cormack I think it needs to be because it is providing better education to those groups. It's providing more effective use of the organisation's resources. I think it has to be handled extremely carefully and your first control, I guess, is there. You can say at the start to an individual, "Do you want to be treated based on these self-declared characteristics?" It's quite hard to say what the informed bit would be. You might well end up being more restricted in the interventions you can offer, and possibly there has to be a greater risk of harm or failure to progress or whatever. I think it's possible but it would need to be handled very, very carefully, and one of the challenges actually is how you discover if what you're finding from learning analytics is actually picking out those sensitive characteristics based on non-consent. If you don't have those characteristics it's very hard to work out oh this is actually picking out a racial group if that group haven't told you what their race is.
- Niall Sclater Now Susan Graham suggests that if you're using sensitive data for monitoring equal opportunities then that might be acceptable.
- Susan Graham Essentially in terms of the data protection and practical handling, what this means is that the bar is higher. So all the standards about what you do with that type of information, you're expected to be more stringent. So unless you're doing it for purposes of equal opportunities monitoring, you are likely to need consent. You're also going to consider very carefully who has access to this information, and it will need to be carefully restricted and on some sort of need-to-know basis. Also I'd say general best practice when handling information about people is to have clear, written procedures around accessing it, transmitting it, using it, and with sensitive data I'd say that that is essential. You

should have very clear, written parameters around who can use it, what for, and of course sensitive data as well we should be storing everything securely in any case, but with sensitive data again we have to be particularly careful to make sure there's no risk of it say going astray in emails, of it being very easily hacked or intercepted, and making sure that physical security arrangements are also strong.

Niall Sclater

So where have we got to? We've established that transparency is very important. You should be upfront with students and staff about what data is collected and what you're doing with it. It may not make sense to go into great detail about the processes and algorithms of learning analytics, but you should be able to explain what's happening in general terms. As far as asking for consent is concerned, this may be covered in existing institutional policies and computing regulations and arguably it's in the legitimate interests of the university to collect and use this data anyway for the students' benefit. Even taking interventions as a result of learning analytics may not require the students' consent if that can be argued to be part of normal educational processes. But if you're doing something with the data that could be potentially regarded as intrusive, such as making suggestions to students based on their location, then you should seek their consent. Also you do need to handle so-called sensitive data particularly carefully and if you're going to use it for learning analytics you should be able to provide good reasons for why you need it and make sure you're not prejudicing one group of students over another.

[ENDS]