ELI Spring Focus Session Participant Chat Transcript

**Analytics that Inform the University**

April 11, 2012: 4:05 p.m. ET (UTC-5; 3:05 p.m. CT, 2:05 p.m. MT, 1:05 p.m. PT)

Kelsey Metzger @ Univ of MN Rochester: (16:09) regarding poll: option 3 seems like a subset of 2, except that it would also be useful for not 'at risk' students

Christopher Brooks @ Univof Saskatchewan: (16:09) This chart is in registrations?Course hours?

Group @ Michigan State Univ: (16:10) SCH

Veronica Diaz @ ELI: (16:10) @chris, credit hours

Kimberly Arnold @ Purdue Univ: (16:10) student credit hour, I think

Malcolm Brown @ ELI: (16:10) Question: is learning analytics more relevant to large courses? Imagine your senior humanities semianr with 18 students: do we need LA for such a course?

Veronica Diaz @ ELI: (16:11) we do if we consider that LA is also valuable for students

Kimberly Arnold @ Purdue Univ: (16:12) @Malcolm --yes, LA is about Optimization of learning for ALL students

Christopher Brooks @ Univof Saskatchewan: (16:12) Yes, Yes.

Kimberly Arnold @ Purdue Univ: (16:12) different LA initiatives will be necessary, though--no such thing as a one size fits all

Sherry Clouser @ University of Georgia: (16:12) Plus, if we are testing hypotheses about class size, we would need data for all class sizes.

Kelsey Metzger @ Univ of MN Rochester: (16:12) and if you can continue to collect data about outcomes even after a student is no longer a student, the data from senior courses is another source of information in even larger predictive models

Christopher Brooks @ Univof Saskatchewan: (16:12) It's both more relevant for larger courses, but still beneficial for smaller "senior humanities" ones

John Fritz, UMBC: (16:12) Ha, I hear you: never done!

Hae Okimoto -U of Hawaii: (16:12) in answer to Malcolm's Q - while LA is more relevant to large courses, it would be interesting to see if there are things that are successful in small courses and can it be transferred to large; or are there similarities for success despite course size (i.e. faculty practices)

Leah Macfadyen @ The Univ of British Columbia: (16:14) it depends what you mean by 're;levant', I think. pragmatically, educators are increasingly challenged by class size, and need new tools to help them track and monitor student progress. but in terms of \*learning\*, obviously LA has potential to any student

Andrea Nixon @ Carleton College: (16:14) Someone teaching 18 students in a F2F format has a much easier time identifying and engaging students who are struggling.I think that there is a difference in the degree in terms of a cost benefit analysis.

Leah Macfadyen @ The Univ of British Columbia: (16:15) this poll needs an 'all of the above' option....

Malcolm Brown: (16:15) Hmmm... but in a small seminar I would think the instructor is more in touch with how the students are faring as opposed to a class with say 80 students

Kimberly Arnold @ Purdue Univ: (16:15) Tom--wondering if you classify EIS as LA?It seems to me more like really slick reporting...

Leah Macfadyen @ The Univ of British Columbia: (16:16) only while they are in the class in front of them, I 'd suggest. what about the other 165 hours per week?!

Robert Morse @ Ivy Tech Comm Coll of IN: (16:16) But isn't data reporting a kind of LA?

Kimberly Arnold @ Purdue Univ: (16:16) @ Malcolm what about customizing a course of study?That would be benefical for students, regardless of class size

Group @ Michigan State Univ: (16:16) @Kim, from the institution top-down view, a really slick reporting, or BI system is a form of LA

Malcolm Brown: (16:16) Kahneman: THinking Fast and SLow.Great read.

Group @ Michigan State Univ: (16:16) ...if it includes LMS activity data

Susan Henderson @ EDUCAUSE: (16:16) Chuck - An AL tattoo would show amazing dedication to your work!

Kimberly Arnold @ Purdue Univ: (16:17) @ Michigan State Univ is it?where is the predicition?where is the action?

Robert Morse @ Ivy Tech Comm Coll of IN: (16:17) Is LA always predictive or can it be descriptive?

Otto Khera @ Univ of So Cal: (16:18) "build an appetite for data" .. me likes!

Kimberly Arnold @ Purdue Univ: (16:18) I believe academic analytics reuires predicition AND action

Kimberly Arnold @ Purdue Univ: (16:18) otherwise, it's just reporting

Group @ Michigan State Univ: (16:18) I think the action is in the form of administrative response, which could come from reconciling false assumptions, purely from confrontation with descriptive data

Malcolm Brown: (16:18) That session with RandyBass at the ELI Annual Meeting was recorded and is available

Group @ Michigan State Univ: (16:18) You've got me on the predictive part

Kimberly Arnold @ Purdue Univ: (16:19) these are questions we struggle with in the field--what constitutes "LA"

Sherry Clouser @ University of Georgia: (16:19) WRT IRB, does every student and faculty member sign a consent form?

Malcolm Brown: (16:20) "my pillow needs a pillow"another memorable line

Kimberly Arnold @ Purdue Univ: (16:20) link to Randy Bass' ELI presentation <http://www.educause.edu/ELI12/Program/FS02>

Johann Larusson @ Brandeis Univ: (16:20) Just out of curiosity, is that difference statistically significant?

Kimberly Arnold @ Purdue Univ: (16:21) past performance is most likely to predict future, right?

Leah Macfadyen @ The Univ of British Columbia: (16:22) My thoughts re consent are that it's unclear to me whether looking at much of this data is 'new'. That is, 20 years ago students didn't have to sign a consent form to allow educators in their school to look at their grades data (for example), or their academic history. Is this functionally very different?

Malcolm Brown @ ELI: (16:22) hockey stick!

Kimberly Arnold @ Purdue Univ: (16:23) that measnthere is somethingmissing--some may be non academic?

Leah Macfadyen @ The Univ of British Columbia: (16:23) or perhaps something that isn't measured or easily measurable :-)

Christopher Brooks @ Univof Saskatchewan: (16:23) @Leah: We live in much more privacy sensitive world, from the government/policy standpoint (and not the student standpoint)

Brandon Martinez@ Univ of So Cal: (16:23) Cumulative GPA is an end point. Students have to be doing things along the way that result in a final grade. I think you can look at other variables like motivation, self-regulation, and self-efficacy to get at prediction before and during a course.

Christopher Brooks @ Univof Saskatchewan: (16:24) Also: Fun to bet on.

Brandon Martinez@ Univ of So Cal: (16:24) ...besides just a previous course grade or overall GPA

Kelsey Metzger @ Univ of MN Rochester: (16:24) @Leah: wouldn't the need for IRB depend on whether the data is only being used to inform within institution/course or if the data will be published? That was my understanding: a faculty member/instutition could use the data internally, but if it is to be used for research to be published., consent needs to be obtained

Leah Macfadyen @ The Univ of British Columbia: (16:25) @Kimberley, I think the 'publication' issue is a red herring

Otto Khera @ Univ of So Cal: (16:25) I agree, cumulative GPA is the result and not the driver.

Johann Larusson @ Brandeis Univ: (16:25) @Brandon yup! I would love to see a decision tree "during" not after

Malcolm Brown @ ELI: (16:25) I think what Chuck is suggesting is that good data analysis is a powerful tool

Leah Macfadyen @ The Univ of British Columbia: (16:26) @Kimberley and Christopher: Our ethics board and instutional legal counsel differentiates between 'institutional research' and 'basic research', regardless of whether it's published in the end. And institutional research is the work of 'examining our practice' that we've always done

Christopher Brooks @ Univof Saskatchewan: (16:27) @Leah: We've had reasonable luck with the IRB, but I'm in an academic dept.I think it's an important question, but I haven't been turned down yet, even when not getting consent, if the data is anonymized.

Christopher Brooks @ Univof Saskatchewan: (16:27) even linked anonymized data

Andrea Nixon @ Carleton College: (16:27) It is a powerful tool but it also requires \*very\* careful data preparation, methods selection, and model specification.-> good research design

Leah Macfadyen @ The Univ of British Columbia: (16:28) @ Christopher. Nodding. Same.

Brandon Martinez@ Univ of So Cal: (16:28) @Johann Right--if we break down a GPA we also have to examine the course variation (i.e. sciences vs. humanities). As well, students who have been getting Ds and Cs are doing so for a reason. If I see a student had Cs and Ds during his freshman year, I don't need to run a predicitive analysis to let you know that he is going to get more Cs and Ds. What I need to know is during the coursewhat behaviors is the student engaging in or not engaging in that influence his learning and ultimatley result in high/low performance.

Sherry Clouser @ University of Georgia: (16:28) Hmm. Good point about the differences between research in a particular course vs across the institution.

Kimberly Arnold @ Purdue Univ: (16:28) @Leah and @Christoper we juts make a policy to go through IRB for everything, can take time, but we think it's good to have externaloversight becasue we getsoooooo into the power of LA

Christopher Brooks @ Univof Saskatchewan: (16:30) @Leah @Kimberly One of the biggest problems is that we often get new insights and want to recruch data with a new purpose, and being able to do this effectively requires some careful writing to the IRB to make sure that we can use the data for lots of different kinds of investigations.Multiyear data across cohorts is also a challenge, and then there is the politics of getting the "data steward" to actually release the data to us, regardless of what the IRB said.

Brian Dashew @ Columbia Univ: (16:30) Do you worry that GPA as both a predictor and measure of success might lead to a culture in which both student and instructor success might lead to artificial "success" at the expense of learning?

Kimberly Arnold @ Purdue Univ: (16:31) does the definition reallymatter?Are we spending too much time on defining?

Leah Macfadyen @ The Univ of British Columbia: (16:31) @Kim: Sure. I just think it's also important to 'demystify' what we're actually doing. That is, to clarify that while we may have more metrics, we're not doing something qualitatively different from what educators have always done: that is, tried to assess any available indicators of what students are doing (in or out of class) to see if it affects their academic success

Brian Dashew @ Columbia Univ: (16:31) sorry\*GPA as a predictor of student and instructor success might lead to artificial

John Campbell @ Purdue Univ: (16:31) We need to focus on what outcomes we are working towards - not the hype of the term "analytics"

Johann Larusson @ Brandeis Univ: (16:32) @Brandon exactly...what you want to know is "what it is" that is contributing to that students success or failure....with the appropriate intervention you might be able to change what otherwise the past might dictate....simply looking at the past might have you do some assumptions about that persons success.

Leah Macfadyen @ The Univ of British Columbia: (16:32) I hear you, John :-)

Kelsey Metzger @ Univ of MN Rochester: (16:32) @Christopher: yes re: careful inclusive IRB language.

Otto Khera @ Univ of So Cal: (16:33) GPS is the new GPA

Christopher Brooks @ Univof Saskatchewan: (16:33) @John The hype is frankly good sometimes: convinces the right people they need to fund analytics research.Hard for those of us who have been practicing SNA/AIED/ITS/EDM/etc. for years without anyone in admin caring.

Malcolm Brown @ ELI: (16:33) there is a web site called the "The Quantified Self" with info on taking data on oneself to make or support better decisions

George Siemens @ Athabasca Univ: (16:33) part of what analytics can do is serve to help us ask better questions around things that we can't control

John Campbell @ Purdue Univ: (16:34) @Chris - yes, they hype has raised awareness, but it might also hurt institutions. Too many are looking for the magic pill

George Siemens @ Athabasca Univ: (16:34) @John - didn't see you here. thought you were hanging out with IBM'ers today :)

Leah Macfadyen @ The Univ of British Columbia: (16:35) @John: Yes, and can also scare off those who are fearful. Speaking from an Arts Faculty, this is a very real phenomenon!

Christopher Brooks @ Univof Saskatchewan: (16:35) @John and the early wins might make it too tempting to just "buy a solution" and say you've got an analytics engine: no need for further inquiry.

John Campbell @ Purdue Univ: (16:35) Yes, many variables are outside the academic domain - but maybe we should focus on what we can change

Alan Girelli @ Univof Mass Boston: (16:35) I feel as if some here are looking for the magic pill and we need to move the discussion to what information we need most to improve teaching and learning.

Brandon Martinez@ Univ of So Cal: (16:35) @Johann agree.I also wonder that if a trend arises mid-course, it might map back to course and curriculum design as well as what individuals are doing. What is your email address?

John Campbell @ Purdue Univ: (16:36) One thought - there is a huge pile of good research on what can improve student success - what can we do with analytics to produce actionable intelliegence to make this happen

John Campbell @ Purdue Univ: (16:36) We need to focus on the actions in which the analytics can kick off

Heidi Jung @ So Ill Univ at Carbondale: (16:36) is anyone using standardized rubrics, i.e. AACU, to run analytics for criterion-referenced domains?

Yakut Gazi @ Texas A&M Univ Central TX: (16:36) Re: careful usage of language in IRB applications, does anyone have any examples they'd be willing to share?

Christopher Brooks @ Univof Saskatchewan: (16:37) :)

Christopher Brooks @ Univof Saskatchewan: (16:37) I like it

George Siemens @ Athabasca Univ: (16:37) :)

Johann Larusson @ Brandeis Univ: (16:37) @Brandon [johann@brandeis.edu](mailto:johann@brandeis.edu) .....I'd like to think that we can prevent the "traditional way in which student learning tends to go" given some prior stats.....

Otto Khera @ Univ of So Cal: (16:38) @ John Campbell .. I don't think that the analytics proponents would disagree with the need for 'actionable' measures and the need to join with existing research

George Siemens @ Athabasca Univ: (16:40) need analytics on analytics

Christopher Brooks @ Univof Saskatchewan: (16:41) There are lots of techniques for overfitting on the technical side though.What about overfitting on the pedagogical side?Ignoring some courses that are "unique"?

Leah Macfadyen @ The Univ of British Columbia: (16:42) @ Chris - yes, this really speaks to my own anxieties about scaling

Christopher Brooks @ Univof Saskatchewan: (16:42) @Leah: I'll be in van for LAK, I assume you'll be there, I'd like to talk more with you about scalability.It's very important to me.

John Campbell @ Purdue Univ: (16:43) There is no clean big data seet

Group @ Michigan State Univ: (16:43) What is LAK?

Leah Macfadyen @ The Univ of British Columbia: (16:43) @Chris: alas, I won't be here. I know, I know. Major scheduling error. I"ll be leading a field course....

Andrea Nixon @ Carleton College: (16:43) Do you think that we are overly reliant on response variables that are continuous?Isn't that part of the draw to looking at GPA?

Christopher Brooks @ Univof Saskatchewan: (16:43) @Michican state: Learning Analytics and Knowledge 2012 conference

Debra Sarlin @ Bucknell Univ: (16:45) LAK = Learning and Knowledge analytics

George Siemens @ Athabasca Univ: (16:45) that's the link to the LA conf

Otto Khera @ Univ of So Cal: (16:45) Thank you Chuck -- soo humorous, to the point, and consumate - thank youboth