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EDUCAUSE
Using a Student Analytics Look Book to Highlight Data Value and Protection
Tuesday, January 21, 2020
1:00PM – 2:00PM Eastern
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>> Kathe: Welcome to today's EDUCAUSE Webinar: Using a Student Analytics Look Book to Highlight Data Value and Protection. Thanks for everyone's patience. I'm glad to see we have so many participants from all over the dry and the world. This is Kathe Pelletier, Director of Student Success Community Programs at EDUCAUSE, and I'll be your moderator for today's event. You are probably familiar with the interface for our webinar, but here are a few reminders. We hope you'll join us in making this session interactive. You can use the chat window to share resources and comments. If you are tweeting, please use the tag EDUCAUSEwebinar. If you have any audio issues, click on the link in the lower left-hand corner of the screen. And, at any time you can direct a private message to “Technical Help” by clicking in the top-right corner of the Chat window. A drop-down menu will appear where you can select “Start Chat With” and “Hosts.” The session recording and slides will be archived later today on the event site for future viewing. And now, let's turn to today's presentation: For the past three years, the Center for Student Analytics at Utah State University has worked to discover meaningful, data-informed insights into what helps students succeed at their institution. Recently, we compiled 20 of these insights into a student analytics "look book," with the goal of democratizing analytics consumption among our stakeholders and with a keen eye toward students as a primary audience. This webinar will highlight some of the rationale and key benefits of the approach used in the preparation of this publication, with guidance for How to achieve similar results at other institutions. We are delighted to be joined by Dr. Mitchell Colver, Senior Data Analyst at Utah State University, and Amanda Hagman, Who is the Data Scientist at U.S. Dr. Colver began working in higher education in 2007, where his early experiences with students taught him to focus on the value of human diversity and human potential. As a thought leader in the field of analytics, he is frequently invited to champion the idea that student success can best be fostered through increased intentionality amongst faculty, staff, and executives. Dr. Colver and his team believe that human empowerment and collaboration are the most powerful tools that 21st century institutions have in their arsenal to optimize the student ecosystem. His research has appeared in Popular Science, Slate, Smithsonian, New York Magazine, and, internationally, on Radio BBC. An honorary appointment as a visiting scholar at London South Bank University has allowed him to enjoy ongoing research in the UK about institutional effectiveness and student well-being. Amanda Hagman is a data wrangler in the Center for Student Analytics at Utah State University. The term data wrangler may conjure an image of a pocket protector wearing cowgirl, wielding a calculator and corralling numbers. In fact, data wrangling at the Center for Student Analytic is just as much about people as it is about numbers. Amanda Hagman is dedicated to supporting professional development and leadership through analytics. She is a leader in the field of rapid-cycle evaluation in higher education. Her prominence in the field has allowed her to serve as an author and consultant on the implementation of predictive analytics and evaluation in real-world context. Amanda has degrees in Biology, Human Development, and Quantitative Psychology. In addition to wrangling numbers, Amanda Also wrangles three children and a husband. I'm delighted to introduce the two of them, our esteemed guests. With that, let's begin.

>> Dr. Mitchell Colver: Thank you. We are excited to be with everyone. The title of the presentation is
Using a Student Analytics Look Book to Highlight Data Value Protection and hopefully as we explore these issues, you will be able to see the work we are doing here is well within hand. That it's important work, but it is work that is approachable and that pays dividends when done effectively. To start, I want to introduce you to our institution. Utah State University is nestled in kind of a mountain valley in northern Utah. This is an image of it in the month of May. That is how it really looks. And Utah State University is the state of Utah's land grant institution. We have 34 sites and campuses around the state and we are organized with access mission to take people to Utah and different world areas. We have three main campuses, Logan, Price and Blanding and the rest of the sites are anywhere from mobile classrooms to even single rooms where we provide distance learning. We broadcast over 350 courses every week and the hope is that we are making higher education accessible to the common man and woman of the state of Utah. So, that's a little bit about our University. About a year ago, our work was formalized into the Center for Student Analytics and we have been a year now -- together as a team. Basically, working to uncover insights about what helps students be successful here at the university and what helps them to ultimately achieve their goal of graduating with whatever degree they're pursuing. Ultimately, our data may be interesting and help us learn about our students, but mostly we see data as a lens through which to view institutional effectiveness and opportunities to optimize and improve the services we provide. Now, what we want to talk to you today about is this student analytics look book. This student insights report that we published and that basically has been made available to a lot of different campus partners and made available publicly for people to consume. Looks like we are having some audio issues. Before I -- audio issues. Before I continue, I want to make sure we get that corrected. I might switch to the handset here. issues. Before I -- audio issues. Before I continue, I want to make sure we get that corrected. I might switch to the handset here. Is this better? And that's louder. Great. It sounded like this is a lot louder than it was before. I think it was just our headset issue. The analytics look book was to share some of our insights with a wider audience than we had been able to share before. So, partly how this crime to be is a story I want to tell of basically what our work was as an analytics unit. Obviously, data is available in a lot of different forms all over campus. It is being collected by a lot of different units for a lot of different purposes. This kind of silo data is pretty common at most institutions and we have found that one of the most point steps of our work came when we found opportunity to federate all of that data from all those different locations into some common systems. That process of bringing all that data into a central location allowed us to have a more comprehensive picture of what we call the student ecosystem. The data is owned by many different stewards and protected by a lot of different data trustees. But the Center for Student Analytics was able to wrangle, as Amanda's position is called, data wrangler, bring that data into a central location where we could look and scope and see what the issues are. As we did that, we started to see a real value from the data and started to produce a lot of different various insights that we felt like the administrators would be interested in. And so, one of the first it iterations of what is called the look book is the binder I put together and it was a collection of a whole bunch of reports we prepared that basically were compiled in the format that we wanted to deliver and we wanted to say here's a bunch of work we have been gathering and you could peruse it to have conversations with versus stakeholders. We gave it a great name which was the omnibus analytics report which at the time I thought was great. But since I have realized maybe this wasn't the right approach. As time passed, the provost said to me, you know, I sure talk with a lot of people and it would be nice if I had something from you guys I could turn to and open up and share details about. Mentally I was going like, well, I gave you that analytics report, that binder. Surely that is what you are thinking of, what you are talking about. But I could see there was a
disconnect between what I provided and what he was looking for. I had this experience of this cat; I prepared this binder and I brought it to you and I gave it this fancy title. And I felt like he was not making the connection that that was the thing that he was going to use to kind of have conversations with stakeholders. But instead of this dead mouse, it was this binder that I had prepared. And so, after I had that conversation with him, I just said, great, Frank, I will get you something. I came back to the office that day and kind of told him the end of the story and I said we need to put together something. This is where the idea of this look book kind of came into being. Where we said, okay, what if we organized ourselves around something that would be half page size booklet that someone could have kind of with them in their laptop bag or in their portfolio and if it was written each insight, maybe 20, 150 words or less to various audiences and we could kind of take that and present it to the provost and say here's what you are after. Here's what you were looking for and hopefully that would fit the bill. We sat down and started blocking out and outlining and got to working and coming up with who we could present that in a rapid quick turnaround in a way that would be appealing to a lot of different audiences. So, with that, I will turn it over to Amanda.

>> Amanda Hagman: So, after we started having these conversations, we realized -- well, we knew we had a lot of insights that could be helpful in this context. And it took us only about three weeks to move from this point where we knew that we needed something to -- filtering through the insights we had to be able to share them out. Which was kind of this incredible speed that we were able to move from really sharing out our results. And we felt that this really fit within the mission of our unit. The text here is the mission. But really our focus as a unit is in student success. But we’re helping to empower professional use of analytics in student success. We could utilize the data we have been able to federate and pull insights from. We facility the collaborative use of data. We foster a culture of decision-making. All of these things have this flavor of data analytics but what we have been able to do is open doors for conversations. We knew as we were moving through this from the very beginning that we had several important stakeholders and that data analytics we were using was quite a bit more sophisticated than our university professionals were used to. We hadn't been able to cut across multiple data sources before. We hadn't been able to do predictive analytics. So, we had different groups of professionals that we needed to help consume this information and consume it in an intentional way to support their student programs and work better as an institution. And so, as we were doing this, we came to a realization that aesthetically appealing data is valuable and ideologically powerful. We know data has become valuable. That is actually now a trading commodity. Once mon a time it was oil -- upon a time it was oil and now data is traded like oil because businesses are able to use it to reach their means. What they're hoping to do. But just like crude oil isn't innately available, data, data points are not innately valuable. Data can become valuable when it fulfills a human need. The image that you are seeing on the screen right now is the life cycle of substantial analytics. And our center and Mitchell wrote up something and we can show you where it is available later. But we were able to identify that there's actually six different pieces of sustainable analytics. The first three we call formal analytics and those are really what we think about when we think about analytics. But the second half which is often neglected is the fulfillment of human needs. A lot of times the star of the show is the analysis, is the visualization, is the dashboard but should be the fulfillment of human need. When you are taking data, there's two parts that need to happen. You need both the formal analytics and the fulfillment of human needs. But what you are doing is you are sense making, using AI and afterwards, you have to be sense making via HI, which is human intelligence. That is the way you are able to move data from its crude form to a
useful form where human needs are fulfilled and empowered through the use of analytics. And visualization becomes important in that. Let me pull out two things that we were able to start pulling from the analytics system we are using. So, the first one represents a 5.49% increase in persistence. This is coming from advising. When the data analysis puts out the results, this is what it spits out. As an analyst who understands what is taking place, wow, 5.49, that is fantastic. Looks great. And on the other side, looking at the top ten, I’m like yeah, this is some good stuff. But, one of the things that -- these are kind of our scientific way of putting it. Advising influences persistence. One of our top ten is course load. Course load influences persistence. But we are still too far away from fulfilling human needs. This is data science stuff. So, how do we take it from sense making with AI to sense making with HI, we have to contextualize it because data is only a shadow of things we care about. How do we shift that 5.49 into something that can actually be consumed, utilized and empower humans? So, this different, the 5.49 becomes persistence rate of students who met with an advisor is 90.73 and the persistence rate of those who didn’t meet with an advisor, 85.24. Meeting with an academic advisor each semester is one of the most important things a student can do to improve their chance of remaining enrolled and working -- enrolled and working towards graduation. So, by pushing this into a form where it is more usual into these prose and we contextualize it, it becomes actionable. The second insight was course load. And the original title that I said, course load influences persistence really isn’t as helpful as the second one. Take the right number of courses and then we broke it down visually. When you take one class, you will have lower persistence, and this actually fell into another insight that is valuable for stakeholders at universities to understand is we have a tuition plateau. So, student tuition plateau is an important element of the USU experience. Taking any number of credits between 1 and 18 costs the -- 12 and 18 costs the same. Students to be taking heavier course load and how that is beneficial to them. So, we have taken these insights and we have transformed them and put them back into context to a place in space where they can be utilized by different stakeholders at our university. And so, originally, my purview was set on our university professionals. But all along we knew that students were a really stakeholder as well. So, as we were able to consolidate the insights in the many page reports that we had written, we found that students became an important stakeholder in sharing out the data results because it gave them something that they could do as well.

>> Dr. Mitchell Colver: Now, what Amanda is saying about students as a stakeholder is super important for us to work through here in terms of the concepts of what this look book represents. One of the principles that we are kind of functioning on is this idea it is very different for individuals to love and to protect something that they cannot name. And so, for our students, I think a lot of universities kind of think of students as a data stakeholder. But fail to take the message of data's value in a way students can start to fame what analytics is doing on -- name what abilities is doing on their behalf. How the institution is using it to make decisions for the institution. And so, what our drive was here is to say, hey, here's some new perspectives that you may not have had before at USU and now that we are showing these to you and you could read through them, you may be able to name what analytics does and how it functions and what kind of insights it produces and to the extent you find those valuable, you could stand up and say I do think as a student that what the university is doing with my data is useful and should continue. And so, we do kind of have this notion that these perspectives we are generating a conversation that had not been able to be answered before. Now, there's some questions about the causality statements which I will get to. One of the things we put in the book is this statement on data protection and value. A lot of concerns that students have are about this idea of are you protecting my
data. Are you keeping things private? Are you using it in a way I would find sensible or reasonable? So, we at least went through the steps of putting in this data protection and value statement to remind them that not only is their data valuable, which we understand, but it is valuable for a lot of different reasons and to the extent we do want to keep it safe, secure, private. And I think that the kind of table contents there shows you some of the audiences that we are gearing towards. But the first one listed is the students and there was definitely a very intentional coordination with our student leadership to make sure that this report would feed their interest and also answer some of the questions that they had. Now, as Amanda already showed you -- one thing I want to say before we get into some example pages is that Kim Arnold had in a lack of publication or talk put out this idea that their survey which has been done in Wisconsin and in the U.K. about how students perceive the use of their data came out in an interesting way. In the U.K., students there were 51, 52% supportive of the idea their data could be used to make the educational offerings better. So, that's kind of a barely a majority. But in Wisconsin, the students there were kind of receptive to the idea their data could be leveraged. 75%, 74% endorsement if an institution wants to use my data to make the classroom a better place, then have at it. And so, I think that those proportions are meaningful because I think we have seen similar kind of professions as in Wisconsin -- proportions as in Wisconsin. Something to keep your eye on is this idea of student receptivity to what is going on. One of the questions we get usually from faculty and Data Scientists, what a minute, you're hinting at causality. What methodology are you standing on in order to achieve that? In this report we are we laying on two different modes of estimating cause -- causality. Our estimates we feel are close. So, this first page advising matters is done using a prediction-based match that is provided to us the structure of that analysis is provided to us in a product called Impact which is made available to us and we are pleased with it. What it does is it uses a prediction-based propensity score match to do an even matched comparison group. It is not a controlled group. What is attempting to do is control for self-bias. It is not two percentages of the groups who met with an advisor or those who didn't. These two percentages are those participants who we could find an appropriate comparison match, one to one, in a complex prediction-based propensity score match process. And so, this comparison is an estimated causal impact of academic advising. Throughout the book you will see these propensity score matches being done as a way of estimating the causal impact of using a quasi-experimental comparison. On Page 2 you will see this tiered effect of different student participating in different course taking. What is happening here is we are running a massive random forest where variables are allowed to compete for their ability to predict the student outcome and then through a logistic regression, we look at those variables that have the highest links or independent contribution to the model and recheck those against other variables that we might suspect is possible actors of causing the result to occur. After we have done some spot checking -- in the end this is just a heavily weighted variable. So, it is a correlation. But after -- in the age of machine learning, sometimes that is sufficient to kind of had a hint at causality. We are not saying this is causal and we talk about it in kind of this would be a good idea language. But that is meant to kind of highlight that most of what we are recommending in here is low cost, no harm and also is kind of what we are staking the success of the university on in the case. Taking the right number of courses. We do see students being more successful also in the literature after enrolling for more classes. So, we are not making these claims in a vacuum. This is kind of -- we are synthesizing a lot of things together to make sure what we are recommending is not only something we could stand on statistically but also stand on using the literature base from the world of higher education. It is a lot of things intersecting and pointing at these conclusions. Hopefully that is the nuts and bolts of what you are asking there. But as you can see, as you move through the report, there's
loots of ways -- lots of ways to slice these things up and make it readable for the students. And when you do new student orientation, those recommendations are based on that synthesis. It is a variety of modes of persuasion we are relying on to come to the conclusion that papering in orientation -- participating in orientation is a useful thing for students to do and analytics are the cornerstone of that process. As far as these methods are concerned, there’s dive a methods statement in the back of the book. But we are happy to have anyone reach out to me -- to us I should say and to say, hey, can we walk through this in greater detail so we could see what is happening behind the scene. Now, part of what we have talked about here is taking this message to students. Taking this and kind of putting it with students so that they can name analytics. So they could see what it is and to the extent they find it valuable, they could stand up and say that is good what you are doing. We have taken these booklets to over 600 students now in different settings. Student leadership groups, resident assistants, all these different groups and here are some of the reactions we have heard from students. I liked sharing what the information means to our university and to our student group. I enjoyed the conversation that we had. It was a great workshop. I liked how we learned about what we could do to help our on-campus students return to school and make their college experience a good one. One student reaction I particularly liked is after a presentation, a Tuesday night, later that week I was walking through the lobby of a campus building and the student could out and say hey, you are that fun analytics guy. And I said what? She said you came and did that presentation and it was so good and I’m glad you guys are doing good work on behalf of the institution. So, I thanked her. Then as I went to my meeting, I thought that is kind of a -- funny analytics guy. I wonder if that has ever been uttered so I made it my Twitter handle. It happens to be the 15-character limit, which was nice. I think this kind of speaks to how students are able to now see and name this thing that is called analytics and this look book is helping us have the conversation. We worked with the student body government to take these insights and convert them to social media posts that can be consumed in about eight seconds. If they have more interest in what the details of the claim are, then they could click through and contact us via email and learn more about it and get a copy of the full report. So, this one says the first FAFSA is free. The next one is about attending the Aggie rec center. And we saw the greatest impact on students’ participants. These will be out over Facebook, Instagram and Twitter and be able for students to consume in that way.

>> Amanda Hagman: These one more student we action that came from a resident assistant. They were talking about the workshop they had gone to. But it was great. I liked how we learned about what could help our residents return to school and make their college experience a good one. As we were meeting with these student leaders, there was something I also saw happen. I work mostly with university professionals and when we started rolling out these different analytic techniques and tools that we had, one of the things that first happened is professionals would realize I can ask that? And then the next step would be, could we, could we do this. Would we do that because there were questions that people never knew that they could ask. So, by having a few tools in our quiver, we were able to open up a new realm of asking questions. And I started to see the student’s responses were paralleling that with what we saw with our university professionals, could we. Because these students are in charge of many student activities. Could we track who is coming to this event? Could we explore who is even here, what is going on with these students? Can we show this for our programming? And that has always been the most exciting part of my position because we do have these tools and I can come to them and show them these interesting insights. When I see them asking questions, I know they have taken ownership
for the analysis and things coming out and they will start taking initiative to see more insights into their
programming, which you know, is -- I feel like that is always my pat on the back moment. That they're
internalizing the things that they're seeing and they're wanting to know more. One of the things that -- it
is kind of -- I have seen a few comments about it in the chat. But I want to talk just a little bit about the
how. And before I approach the how, I know we just rolled into 2020. Now I want you guys to just
imagine briefly that we are now in 2022. And the reason I say 2022, I know I said earlier that this book
took about three weeks for us to spin out. But it actually came as a culmination of about two years of
work. As we began federating the data across sites, we were able to start to cross direct our data. A lot
of this came through the third-party vendor who helped us organize some of the data so that we could
do these huge random forests and prediction-based matching. As we got our data ducks in a row and
that took a good chunk of time. After we had the tools in hand and expertise in using them, we began
approaching different units on campus where we knew student programming was happening and we
knew we had allies open to using analytics to make better decisions. We call them our coalition of the
willing. The people we knew would be more up for trying these new techniques because again, we
hadn't really used something before. As more people started seeing the results and as we made the
report aesthetically pleasing, something they could share out and show off, they were more likely --
there were more people that started to request having these reports. So, this is kind of a copy of a slide
that were shown earlier. But there's a second article that I think when we are considering that 2022 goal
if you're starting -- if you are in the very beginning stages, Kimberly Arnold and her colleagues also wrote
another paper that gives a good idea of how to build your institutional capacity to be able to do work
like this. Some of the brilliant things that were said in this are fostering student success comes from
many levels of an organize. And thus, any strategy pertaining to student success must involve multiple
stakeholders and contributions. So, they talk about sitting down and thinking about who your main
stakeholders are. Where your resources are and how they can be pulled in. And it should be made clear
that many systemic learning analytics applications to date have centered on perspective analytics as
technology as a tooling and a means of measure. We actually used this as our foundation. They were
saying right now people are doing the face-to-face of the cycle of sustainable analytics. They are having
these tools and showing what can be measured but they are forgetting about that second part. Yet,
analytics like any other tech technological system is completion and in caps latest the social, culture
domains five stages of student success analytics. As you sit and consider where you are with the 2022
goal, if you're starting towards the beginning, you can still reach this point where you have a student
look book within two years. But we are all at different stages of our capacity for doing analytics at our
university and using this report can help you understand where you are and where you will need to go
to have a mature analytics system at your university. This is coming from -- this is Mitchell's words. He
says, many are hoodwinked into believing that because developing a robust technological infrastructure
guzzles so many resources transportive change should naturally spontaneously flow. Like many of you, I
have seen the debates that spin around analytics and higher education. No, we don't need them. Yes,
you definitely need them. It is the silver bullet solution. No, we need more trained professionals and
what we need is a balance between HI, human intelligence and AI so that we are able to use current
techniques to address student success in ways that we haven't been able to before. We need to be able
to support student learning; student well-being and analytics could be an important piece of that but
only in the hands of capable and document tend professionals -- competent professionals. A lot of times
people understand that getting analytics going is big money. But we know that the big money that is
spent on developing formal analytics we need to be spending a similar amount of money to making sure
that the analytics are actually fulfilling human needs. If your pocketbook is emptied out on formal analytics, it is likely that you are not going to be able to see the return of using analytics because there wasn’t enough effort and structure put into the fulfillment of human needs with a sense making based off the insights. So, getting back to some of the things you should start with or work with along the way is you should have a goal of beautifying. We are going to make it beautiful because it helps to bridge the gap between data and understanding. It opens up conversations and it facilitates sharing so you don’t end up with a cat problem. Where we have this beautiful omnibus minder and we realized we needed something that was beautiful and quick and easy to share. Another thing you will pay attention to when doing analytics is you want to contextualize. People say if you have analytics, you should be able to say what your top ten predictors. That is great but you need to know what they mean and what they mean for the stakeholders in context. Which insights do you use and how can you facilitate sense making with the HI already existing at the university? With that, we are happy to answer questions. We know several are already come in. Mitchell, are you prepared?

>> Dr. Mitchell Colver: Yeah. I can take at least a few of the questions and I think now would be the time if you have more questions to type them in and Kathe can kind of funnel those to us. Some of the questions that I saw earlier I’m going to go back a few slides because it helps answer the question. People have asked, tell us about what AI tools you are using and tell us about how you centralize the data. And the reality is that we have a lot of tools that we use. Not just one tool that matters. A big part of our suite is the tools provided by the vendor. We alum students, alum impact, alum courses and inspire for advisors. And those will nice. But we also use R and python, depending on what the use case is, we use a lot of different tools. For machine learning and it is a form of artificial intelligence. Random forest can be done. We can use R. We use M plus that has a form of machine learning for latent filing and classroom analysis. In terms of centralizing the data, we use the vendor and in other ways as well. We have an oracle server and we have a warehouse we have started pulling a lot of stuff into. Sometimes we are using flat files and delivering those, collecting files and delivering them to our staff to be processed and another thing that we are working on is a large data lake in the AWS cloud that would ultimately house and keep secure a lot of these different data sets for building, visualizations, dynamic visualizations off. I would say it is a many-pronged initiative or approach and that it has -- has led us to kind of being the solution, filling the gaps where we see what could we do to solve this problem and get this data in hand. The other thing I could say is another question was asked, who provides the impact analysis? The software itself is provided by Civitas. But Amanda's job is to do that work. It is in-house operations and to add value, kind of the sense making via human intelligence is just as much work to or ten times more work for her to add value to those insights and it is why we created a full-time position. Our team was me for a year and then Amanda came on as a graduate assistant and we promoted her to full-time. Our team size is about 4.5 plus three student workers. But all of that work that we do is a sense making and we try to put just as much valuable in that human kind of sense making as we get from the tools themselves. So, I have tried to kind of address as many of the questions they have come up. I will turn it to Kathe. Did you identify any questions we could respond to?

>> Kathe: Yeah. There's a couple more. I want to make sure -- Beth asked a question way back early on about the nuts and bolts of making the data aesthetically appealing. Is that something you work with graphic designers on or did you have that skill in house?
>> Amanda Hagman: We have a great graphic design team at our university. One of the things -- because we knew we didn't want this to be one off reports, we consulted with them early on and they helped us build some templates and gave us some basic guidelines for visually appealing data. Yes, we used their expertise in times and places, especially with this look book. They were integral in making the insights fit well into this larger structure. But as we are doing our typical report, we use a template to help make the data easier to chew through.

>> Kathe: It definitely is a beautiful report. I'm going to consolidate a couple of questions related to organizational structure. So, if I miss anything, folks who asked these questions, feel free to retype it in the chat. I want to make sure we get to the content of your question and it is not lost. Really questions about how do you fit in the organize structure how is academic affairs involved and how you involve your I.T. partners and how they assist you with this work.

>> Dr. Mitchell Colver: We are part of a unit called academic and instructional services. We used to be in the provost column in academic affairs and we were helping primarily faculty get what they need in a technological space to serve students. As we have evolved our organize change brought in half the division of student affairs and that is when the center was formalized and now we are half faculty service and half student affairs. We still have a service mission and the goal is strategic enrollment management. We collaborate with other offices at touch points from the student funnel from admissions recruitment all the way to graduation and alumni services. So, our goal is to facilitate institutional effectiveness across the entire spectrum. So our mission is very much broad and we do interact with I.T. They are also a service entity on our campus and so we have meetings with them at various times and places. Basically, when we see the systems they manage, or they are over that we need to link with them. It is very cooperative and active. I gave another webinar last year called data governance in the age of analytics where I talk about some different things people do that really stymie this kind of work. Things like data damming, playing a data reservoir that is just for me and not for you. Data blocking where you can’t even know what it is or that it exists. Any kind of democratizing we shy away from. We try to have a active, proactive stance on use of data as long as it is providing value babble in a friendly way. I hope that answers those questions.

>> Kathe: Great. Thank you. I want to jump to a more conceptual question. Are there's things your team have looked at that analytics is helping to improve in terms of students?

>> Dr. Mitchell Colver: That is what the look book is about. Helping students to see their choices and behaviors really does affect their outcomes and not just about persistence. Whatever else persistence is, it is a really good stand in variable for student well-being. When students aren't doing well socially, financially, maybe their family is interfering with their path towards graduation or they have broken up with a significant other, all of those things manifest in academic problems that ultimately can yield to a problem with persistence. We use it as kind of a proxy variable for student well-being. But we also do a lot of different reports that get a little bit mother -- more into the meat and potatoes. What could we do to support their relationship with the faculty and support their relationship with academic advisors. When we are talking about the student ecosystem, there are a lot we could get a hold on to improve the relationships with student and have a more enriched experience. In all cases, data is just a shadow of things we care about and so, part of the work is actually sense making around what is actually going to
be value add to the administrative faculty staff, student conversations we are having so people can figure out how to make the most out of this environment.

>> Kathe: I really love the lens of thriving as the ultimate goal for students and persistence is just a data point in the context of that. I have a couple of technical questions. Can you speak about how you integrate canvas data into your system and if you are using their API.

>> Dr. Mitchell Colver: Yeah. Structure runs canvas that we use is actually able to make a lot of student activity data available for consumption by Sivitas. It shows up as being highly predictive of student persistence. The APIs we are using, I wish I could speak technically to those. We have a data engineer who works using tableau to make sure the ecosystems are healthy and functional. We kind of use whatever the standard connection is between structure and Sivitas. A question I saw earlier was important more proactive students likely to attend advising anyway. What we have found is that kind of effect is happening. That in kind of an untouched system it is the more proactive students who are likely to attend add Democratic advising and it is less impactful on their well-being. We have been able to do an analysis to look at the students who are more vulnerable may be less likely to attend but when they do, they are likely to have this transformational -- elastic. One of the things is we are seeing the opportunity to wake people up using data to the opportunities to target our services and outreach to a more differentiated audience and meet our access mission more fully.

>> Kathe: Great. I'm curious about how you expect the report to evolve in the future and what audiences you might hope to reach.

>> Amanda Hagman: We already are spinning on what our next analysis might look like and we have some other insights that could go in a similar format where you are hitting students. What would have been finding is there are pockets across campus that almost mirror their own look book so they could understand how their specific students are doing. We have been kind of spinning on -- we have an inclusion center. We have been spinning on what that look like for the inclusion center. What would a look book like for the regional site. We have spun out something that can be perpetuated for different groups on campus so students, administrators and our professionals that work with students can consume the insights and work together towards their student success.

>> Kathe: Thanks, Amanda. One more question before we close. I love this question related to the equity gap analysis. Is there anything there you could share publicly?

>> Amanda Hagman: Yeah. There definitely is. So, when we first rolled out predictive analytics, one of the things we did see specifically with advising is you had many more students who were likely persist meeting with advisors and actually doing many things across campus. But when we were able to filter out this insight to our advisors, we said hey, you're meeting a lot with these very proactive students? What about these students and these all these hurdles while they are not answering their emails or not making the appointments and we are realizing there's this gap between the service as we traditionally offer it and the needs of students who may be more at risk. So, what does that look like for advising? How can they make the transition from, you know, standard business as usual service to a service where we are grabbing our most at risk students to help them. And I just conducted an analysis that was super
exciting to me as it was across a longitudinal analysis looking at the proportion of students that have met with an advisor. And really I am seeing a huge lift in -- we have four core tiles. We have seen a large growth in our bottom persistence and so our students who were less likely to meet with an academic advisor are being pulled in to advising at a much higher rate than in the past. So, these analytics have opened our eyes to practices that are not always favorable to all of our students.

>> Kathe: Thanks so much, Amanda and Mitchell. What a great informative webinar. And thanks on behalf of the presenters and EDUCAUSE, thanks to you all for manager this a very interactive session. Before you sign off today, please click on the session Evaluation link that Heather posted. Your comments are very important to us. The session's recording and presentation slides will be posted to the event site. Please feel free to share these resources with your colleagues. And finally, please join us for the next EDUCAUSE webinar on January 23rd at 1:00 p.m. Eastern to hear about STINGAR: Enabling Threat Intelligence Collection, Use, and Sharing in Higher Education. On behalf of EDUCAUSE, this is Kathe Pelletier, thanks for joining us for today's EDUCAUSE webinar.

[End of Webinar]