twgplus webinar series

A New Approach to PREDICTIVE MODELING

Predictive modeling has been around for years, yet few people truly understand how to effectively collect and analyze the data that matters. On February 15, 2017, Jeff Pierpont, College Raptor's Director of College Partnerships joined Talmadge Boyd, TWG Plus' Director of Interactive Strategies explored the challenges that enrollment professionals face when trying to gather data and the benefits achieved when they apply predictive modeling to their admissions funnel.

Tal Boyd: Hello everyone. This is Tal Boyd and thank you for joining us for our current installment of our TWG Plus webinar series. Today we've got a really exciting topic for you. We're gonna be talking about predictive modeling. We've talked a lot about predictive modeling here in the office and we found that it can be a little confusing. What we'd like to do is lower that barrier to entry and help people understand how predictive modeling works and what the processes are around it. We've asked our partner at College Raptor, Jeff Pierpont, to help us demystify it a little bit. Welcome Jeff, how are you doing?

Jeff Pierpont: I'm well, thank you. Hi.

Tal Boyd: Just a little housekeeping before we get started. On the right hand side of the screen, you're gonna have a chat box and if you have any questions during the session, go ahead and type them in and we'll do our best to address them at the end of the session. We're gonna do our best to keep the session kinda short, about 30 minutes or so, and that way you can get on with your day. Without further ado, I'd like to just go ahead and get started. Jeff, let's go ahead and get started at the beginning. Let's say, you know, what is predictive modeling?

Jeff Pierpont: Sure. Yeah, great question. Thanks.

Predictive modeling is often thought of as this really challenging complex thing, when really it's not that big of a concept really. It's using statistical analysis to determine which factors are most likely to enroll a student. Basically what you do to build a predictive model is you look at data from previous enrollment cycles. You take the students who enrolled, the students who didn't, and you try to discover what factors or what elements were significant in making the student enroll or not, right? Really you're applying what is often done as a linear regression model, meaning you're trying to build a model that suggests essentially what students are more likely to enroll and which ones are least likely to enroll. If you were to take a variable, you could say something like maybe an SAT score, so the students with higher SAT

scores are more likely to enroll, a student with lower SAT is less likely to enroll, right? The model picks out all of the various factors or variables that would contribute to a student's likelihood of enrollment and build an analytical model to say, "Okay, how important is this factor and how does that figure out and work with all the other factors?"

Essentially at the end of it when you build it, you get an equation that says you multiply this factor, let's say SAT score, by this amount, plus this other factor, let's say maybe distance from campus to home, times this amount. Then, you end up getting a score that tells you a student's probability of enrollment. Once you build a model on that historical data, then you can use it to apply to your current pool of students. You take that same equation, apply it to the students who are currently in your pool, and voila, you've now got a probability of that. With those probabilities, then you know which students are more likely to enroll and which students are least likely to enroll. Therefore, you can start communicating with them and engaging with them in more strategic ways. Essentially that's what you're trying to do.

Tal Boyd: If I had to summarize that, you're saying predictive modeling helps you focus your time, budget and the human resources involved on the students that are most likely to enroll?

Jeff Pierpont: That's exactly right. Yep, so at the end of all that math you did, essentially you get a score for every single student, and then the higher the score, the more likely a student is to enroll or apply or whatever you build the model to do. Then you can focus your time and effort on those students more intelligently. Instead of focusing equally on all students, you can focus on the ones that have a higher probability of enrollment, therefore maximizing your returns while minimizing your time and effort. Absolutely.

Tal Boyd: Yeah, and so I guess when you're talking about maximizing returns, you're basically focusing all of those resources, whether from email or direct mail to a counselor on the phone, which could be a high dollar in terms of time and effort, on the ones that are the ones that are gonna be the most likely to give you a better result.

Jeff Pierpont: Absolutely. Yeah, that's 100% the case. A lot of the schools we work with, whether it be a search campaign, the students that have a higher model score you're gonna send them more materials or you'll spend more time intensive projects. You might even call students or send them more communications. As you go through the enrollment process and you get down to trying to generate applications or trying to get students to complete a FAFSA or visit campus or deposit, those are things that

are much more time intensive, as you said. It really gives your team, your counselors, a much more focused approach when it's a difference between managing hundreds and hundreds of students to focusing your efforts on those that have the highest probability.

Tal Boyd: When we set up this webinar, we had actually a whole bunch of people sign up and asking questions about things that were way over my head. There were a couple of detailed questions about regression analysis and how to apply that on some cases. Now, I know your model is a little bit different. Can you explain how your approach is different from the normal linear regression model?

Jeff Pierpont: Certainly. At College Raptor, we do our modeling a bit differently. In some ways, we are doing linear regression still so we can talk about that as a point here towards the end. Let's talk a little bit more about what makes our data different, so the data we're actually analyzing to build the model a little different than what other organizations or what you might be able to do internally. Historically, most institutions have looked at their previous enrollment data to say what factors predict enrollment. Again, we use things like test scores, like SAT score, ACT score, distance from home, whether the student's visited campus or not, how long were they in the inquiry pool, how long were they in the applicant pool, things like that. They use those factors to determine how well a student is gonna fit at this school in how they score those students with a linear regression model.

What we do differently is first off, we take a second perspective. If you think about all the data I just talked about, your own institutional historical data, you're looking at the students who enrolled at your school and didn't enroll at your school, right? What makes College Raptor a little different is we added sort of a different perspective. On CollegeRaptor.com, our student facing college discovery website, we're helping students find colleges that are a good fit for them. In order to do that, we look at the information students put in, let's say test scores, GPA, intended major, location, and financial information, things like that, and then we give them what we call component scores. We say, "Based on this student's test score, how well do they fit at your college?" It's not how well do they fit at your college just by itself, but it's relative to all of the other college options that student might be thinking about.

If we said a student had a 75 academic fit, let's say, right? That's 75 relative to all the other campuses that student may be considering. Your competitor down the street, that student might have a 74 for, it might have a 54, it might have a 94. In some ways, we're looking at sort of as the student thinks about enrollment, how well would they see your institution for a number of factors, things like distance, academics, finances, major, things like that. Essentially we take an institution's historical

ABOUT TWG PLUS

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Our goal is to provide creative and cost-effective solutions specifically tailored to each of our clients' needs. Our seasoned staff of researchers, strategists, writers and designers work as an extension of your team, and bring over 30 years of experience in the industry.

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