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The Most Powerful Name in Corporate News

Leading Predictive Analytics Conference Series Focuses on Commercial Deployment

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We had the opportunity to interview author, consultant, and former professor Eric Siegel, transcribed here for your enlightenment.

CEOCFO: ***Dr. Siegel, what is the concept behind your events and your book—predictive analytics?***
Dr. Siegel: A lot's just in the title of my book—it's a long title, but very descriptive: "Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie or Die."

CEOCFO: ***How does predictive analytics work, and why is it better than expert intuition?***
Dr. Siegel: There is a general movement to very much augment gut instinct and individual human judgment with data. You could call it data driven business, data science, big data and data mining. All of these things, in one way or another, are moved towards empirically driven or data driven decision making. Predictive analytics falls within that general umbrella. To be a bit more specific, it is not forecasting, it is the prediction of an individual person's behavior or other individual human elements, such as whether people could Buy, Lie or Die, as in the title of the book. The more complete definition of the field is that it is technology that learns from data analytically in order to make predictions for each individual. Those predictions drive business decisions, such as whether to contact someone, extend a marketing offer or retention offer or investigate for fraud. Most any kind of business operation basically depends on what the possible outcome might be—whether you are trying to prevent a bad thing from happening or exploit a likely good thing to happen.

CEOCFO: ***What factors do you consider that others do not realize belong in the mix?***
Dr. Siegel: Actually, this is not about my secret sauce or formula by any means. This is a general field of science that is widely applied. In general, one starts with the data that is already available. Organizations, as we all know, have the demographic profile data about you with regard to your billing information, for example. And they have behavioral data: how many transactions, how many purchases you have made, how many phone calls you made and all these kinds of things. The data that is available that an organization already has organically, just by virtue of the transactional systems it has in place, turns out to be extremely valuable because it is predictive.

There is a lot of hype these days about *big data*. However, the term *big data* does not actually refer to any specific technology. It is really just an allusion to the fact that there is a lot of data, an extremely quickly growing amount of data. The thing that is really actually "big" about it is the excitement over it—because it is valuable in the sense that it is predictive. Therefore, it turns out that all of these things that organizations know about you… and they can always expand it by buying data from data vendors or finding new ways to collect data… but the data they automatically have just because of conducting business as usual turns out to be extremely predictive, whether it is in the domain of your email address or something about the neighborhood that you live in, the number of transactions and types of things that you purchase. All of these things make a really big difference in the odds of an outcome. Now, *outcome* is a very general idea. It is whatever kind of behavior or future matters, whether it is commercial, law enforcement or healthcare-related. Whatever type of outcome that matters to an organization or a physician or a law enforcement agent—it turns out that those things are very much swayed probabilistically by just the basic elements of data that organizations do in fact have about us.

CEOCFO: ***What kind of resource is Predictive Analytics World?***
Dr. Siegel: It is an event. It is a conference series that takes place nine times a year. It is the leading cross vendor conference series focused on commercial deployment (rather than a research conference or an academic conference).

CEOCFO: ***Why is yours the leading conference? What do you do that maybe other conferences are not doing that draws attendees?***
Dr. Siegel: Among vendor-neutral, cross-vendor conferences—those that are not dominated by an individual solution provider in analytics—Predictive Analytics World is the largest, with the greatest variety of specialized events that cover a range of verticals, such as business, healthcare, government, manufacturing, workforce and financial services. We get the greatest number of attendees and have the most sponsors.

CEOCFO: ***How do you make a predictive analytics event easy for attendees?***
Dr. Siegel: I am the founding chair of the event, an expert in predictive analytics in charge of the program—that is, the lineup of speakers and the topics covered. However, as far as the event logistics and the nature of the website and how it is organized and how it is marketed—we have an advanced specialist partner company that really follows best practices in conference production. There is a lot that goes in to servicing a very rich event agenda with clarity and simplicity. You can see the entire two-day agenda of the main conference laid out on a single overview webpage with all of the tracks and topics and which companies the speakers are from, etc. These are all fairly standard practices for an event.

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But I think that the bigger question regarding what needs to be easy for attendees may first pertain to newcomers to the area of predictive analytics who do not know anything about it and may be a little lost amongst some buzzwords and concepts to which they are new. To that end, we have an assortment of training workshops, both an online intro and full day, in-person training workshops scheduled on days before and after the main two-day event, alongside all these multiple events per year. Then within the main event itself we always have an all-levels track. We also have an expert practitioners track, but for people who are newcomers or play more of a non-technical or management level role, we have sessions that are intended to be accessible and understandable to anyone in the audience, so long as they have read a few pages about the basics of predictive analytics. To that end, we also recommend my book, "Predictive Analytics," which is the leading introductory-level, fully accessible book. It is used as a textbook at more than thirty universities. We also provide an online training program that's available on demand at businessprediction.com and is a popular way to ramp up before attending the conference. There are other ways to ramp up, but if you know the basics you should be able to understand the contents of any of the "all audiences" sessions at the conference.

CEOCFO: ***Do you see newer industries that are starting to pay more attention now, more than maybe even a year or two ago?***
Dr. Siegel: Yes, absolutely! We are following that closely, because that is the defining manner in which we have been launching new Predictive Analytics World events, following those industry verticals that I mentioned, such as financial services, workforce, and government. In general, virtually all industries can and do increasingly make use of predictive analytics, since it is a very generally applicable concept: predicting outcome in order to drive decisions. If someone is going to buy something, send them a brochure. If someone is going to commit fraud, then audit their transactions. If someone is going to get readmitted to a hospital, take a closer look before you release them from the hospital. All industries have that general concept in play. It is very much in government and healthcare. I would say that manufacturing is a very quickly growing arena, as is workforce—that is, human resource decisions predicting who would be a good hire or which employee is likely to quit.

CEOCFO: ***Did we need new groundbreaking technology for the concept to really become mainstream, or is there something else causing people to understand predictive analytics and the need for it*****?**
Dr. Siegel: That is a great question! Certainly, the concept has been around a long time—decades—and in fact has been in play. That is the basic idea of a credit score. Even before the internet, anyone who was doing direct mail and sending you, let's say for example, holiday catalogs—in general any outfits doing that on a large scale were already doing something like predictive analytics. The core technology at hand, the ability to learn from data, sometimes called machine learning or regression, although it has continued to advance, there have been such methods for many years. The difference now is that they proliferation of data is much greater. The proliferation of software solutions that not only

execute on the core analytical methods, but also deliver it for a business or other organization to actively work with it, have absolutely exploded the number of analytics software vendors. More broadly, it is a culture shift. Therefore, the broader area of, "Let us actually make decisions based on empirical data rather than our gut," is a shift, and a new proliferation of brand name success stories give credibility to it and give people more confidence in executing on it. We are becoming a much more increasingly connected and electronically transaction-driven world. Therefore, it is a confluence of all of those factors that has really made, in the last several years, predictive analytics—and more generally analytics and big data—really begin to take off.

CEOCFO*: Are you able to help conference attendees decide between software solutions? How do you help people get through the technically assessing their options?*
Dr. Siegel: The most direct way that we provide support is with learning the universal concepts that apply, regardless of which analytics software solution they are using. Regardless of which predictive analytics product you use, the same core concepts apply. In general, our event program is cross-vendor, so although there will be some specifics to particular software solutions, the primary content and message will be around, "What can I learn and what can I provide as a speaker for the audience that is a useful lesson, that is a useful technique—or tips and pointers that can be applied—regardless of the particular analytics solution at hand. That is because the core technology and the core organizational challenges and methods and techniques are universal. Now, as far as choosing which software, we not directly provide a guide for that, but rather we are providing the venue for all the various software vendors to pitch their wares. For example, although the vast majority of the conference program is vendor-neutral, we have short sponsored spots, including a series of quick, two-minute elevator pitches from the vendors—and of course you can go speak with them on the expo hall. You can see these sponsors listed on the www.predictiveanalyticsworld.com website. Therefore, the event does provide great resources to learn about and eventually select which analytics software solution to go with.

CEOCFO: *Why did you sing to your students when you taught at Columbia and what did you sing?*
Dr. Siegel: The first reason I sang to my students was for fun. However, the reason I got away with it was because I wrote educational computer science songs. I even continued to do so as a corporate consultant within some of my more extended training programs. The conference has a lot of speakers, but in a previous life I was teaching a two-day course all by myself and it was just me speaking, so I could get away with a funny educational song for ten minutes amidst fourteen hours of lecture. It was intended to be entertaining, but I think it was actually effective, even if not because people scrutinized the words about concepts we'd covered in lecture which they heard again in the lyrics of the song, but it also just lightened the mood and was sort of engaging and made the lecture more fun. Maybe it helps to show that the concepts can be a bit more down to earth, intuitive and light, rather than heavy and theoretical and abstract. Stay tuned for just such an endeavor at a YouTube near you.

CEOCFO: *What is next for Predictive Analytics World?*
Dr. Siegel: Our biggest areas of growth are penetration and breadth. The breadth is across more and more industry verticals. We are covering the six industry verticals that I already mentioned and we have new events planned and that is mirroring what is really happening in the industry in general, emergently. Then in terms of depth, even within any individual company, there are always more opportunities within marketing, credit and financial risk, fraud detection and website performance. There are so many places where operations can be made more effective and driven with predictive models—companies are finding newer and more advanced ways to apply the technology, and this is reflected by the presentation sessions at Predictive Analytics World.

CEOCFO: *What has changed in your approach to predictive analytics? What have you learned over time so that the thinking is a bit different today?*
Dr. Siegel: There are always new hot topics and technical trends. A couple in particular that I think have a huge impact is, number one, what are called ensemble models. That is a way to make a predictive model more analytically adept by combining in a large number of simple models into one big collective group of models that in one way or another come together and collaborate. It turns out that more heads are better than one and the same thing is true for models. Then, the second of two hot areas that are making a big difference is something called uplift modeling, also known as persuasion modeling, where rather than predicting the outcome, future, or behavior of what is going to happen, we predict, "Can I influence the outcome?" For example, the Obama campaign of 2012 employed persuasion modeling. Rather than predicting whether each individual voter would vote for their candidate, Obama versus the opposing candidate, Romney, it literally predicting whether a knock on the door from a campaign volunteer or a phone call would influence the voter and change the way he or she would vote. Ultimately, that is the question that determines whose door to knock on, where they should channel those campaign resources of the volunteers. This optimizes the process, makes things run more effectively. So, those are the kinds of hot topics that come up within the core technology of predictive analytics.

Prediction Analytics World

For more information visit:
www.predictiveanalyticsworld.com

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