

Marketing Researchers

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The Power of Prediction: Turning Predictive Analytics into Meaningful Metrics

By [Nancy Pekala](#)

The future may be right now but predicting it and how consumers will behave can help organizations better prepare for tomorrow. That's where predictive analytics comes in.

In this exclusive interview, Eric Siegel, Ph.D., founder of Predictive Analytics World and Executive Editor of the Predictive Analytics Times, shares his insights about predictive analytics and how it can be used to turn Big Data into meaningful metrics. He shares some real-world examples of how organizations are making use of predictive analytics contained in his new book, [Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie or Die.](#)



Marketing Researchers: Can you provide an explanation and definition of predictive analytics? What is it and why should we care?

Eric Siegel: Predictive analytics is the technology that learns from data to make predictions about what each individual will do—from thriving and donating to stealing and crashing your car. By doing so, organizations boost the success of marketing, auditing, law-enforcing, medically treating, educating, and even running a political campaign for president.

Prediction is the key to driving improved decisions, guiding millions of per-person actions. For healthcare, this saves lives. For law enforcement, it fights crime. For business, it decreases risk, lowers cost, improves customer service, and decreases unwanted postal mail and spam. It was a contributing factor to the reelection of the U.S. president.

In short, predictive analytics is technology that learns from experience (data) to predict the future behavior of individuals in order to drive better decisions.

MR: In your book, [Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie or Die,](#) you discuss prediction technology and the role it's playing in predicting the future behavior of individuals. You've indicated that you don't need to predict accurately to get

great value. In your opinion, can technology truly accurately predict behavior in a way it can be used to make informed business decisions?

Siegel: There are use cases for which predictive accuracy is high, but in general it is not (we're talking about predicting the future here). But predicting better than guessing tips the balance in the numbers game intrinsically played with mass marketing and other commercial endeavors, dramatically improving the bottom line.

As I note in my book: "A little prediction goes a long way. I call this The Prediction Effect, a theme that runs throughout the book. The potency of prediction is pronounced—as long as the predictions are better than guessing. This Effect renders predictive analytics believable. We don't have to do the impossible and attain true clairvoyance. The story is exciting yet credible: Putting odds on the future to lift the fog just a bit off our hazy view of tomorrow means pay dirt. In this way, predictive analytics combats financial risk, fortifies healthcare, conquers spam, toughens crime fighting, and boosts sales."

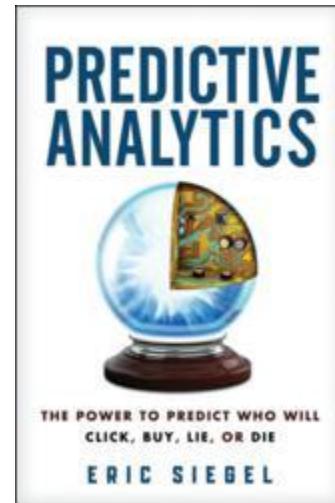
MR: *Traditionally, the role of predicting consumer behavior has belonged to market researchers. How will predictive technology impact the future role of these marketing professionals and the function of consumer insights itself?*

Siegel: Predictive analytics' visibility is increasing very quickly---as more than a marketing tool but as a method and process that applies to many other organizational operations as well, such as risk management, fraud detection, and website behavior. As such, more and more organizations will have centralized teams of predictive analytics practitioners that serve these functions, rather than seeing the "Prediction Team" sitting under marketing. This will begin primarily within large organizations, where it's already taken place to great degrees.

MR: *Your book is filled with fascinating examples of the risks and rewards of prediction including those from companies like Target, HP and Facebook. Can you discuss a couple of those examples in terms of how those companies predicted consumer behavior and the results of those insights?*

Siegel: Target predicts customer pregnancy from shopping behavior, thus identifying prospects to contact with offers related to the needs of a newborn's parents. Cox Communications tripled direct mail response rate by predicting propensity to buy. Sprint identified customers three times more likely than average to cancel. Tesco (UK) annually issues 100 million personalized coupons at grocery cash registers across 13 countries. Predictive analytics increased redemption rates by a favor of 3.6. Netflix sponsored a \$1 million competition to predict which movies you will like in order to improve movie recommendations. Microsoft helped develop technology that, based on GPS data, accurately predicts one's location up to multiple years beforehand.

Facebook sponsored a competition to improve the precision of suggested people you may know and wish to friend. One top-five U.S. health insurance company predicts the likelihood an elderly insurance policy holder will die within 18 months in order to trigger end-of-life counseling.



Hewlett-Packard generate a “Flight Risk” score that predicts which worker will quit his or her job for each of its more than 330,000 worldwide employees so that managers may intervene in advance where possible, and plan accordingly otherwise.

MR: What's the most fascinating thing predictive analytics has accomplished?

Siegel: One of the most inspiring accomplishments of predictive analytics is IBM's Watson computer, which was able to compete against the all-time human champions on the TV quiz show Jeopardy! The questions can be about most any topic, are intended for humans to answer, and can be complex grammatically. It turns out that predictive modeling is the way in which Watson succeeds in narrowing down the answer to each question: it predict, “Is this candidate answer the correct answer to this question?” It knocks off one correct answer after another—credible.

MR: Data privacy has become a huge issue for both organizations and consumers. How will the ability to use technology to predict behavior be impacted?

Siegel: It's very hard to speculate on what legislation may pass in the future—we're only at the very beginning of the debate process in that both sides understand relatively little about the other side's perspective. With predictive analytics, organizations gain power by predicting potent yet—in some cases—sensitive insights about individuals. The fact is, predictive technology reveals a future often considered private. These predictions are derived from existing data, almost as if creating new information out of thin air. Examples include Hewlett-Packard inferring an employee's intent to resign, retailer Target deducing a customer's pregnancy, and law enforcement in Oregon and Pennsylvania foretelling a convict's future repeat offense.

MR: Today's organizations continue to struggle with the issue of too much data. Is Predictive Analytics just adding to that problem? If not, how can predictive analytics help organizations better get to those insights that will add value to their business?

Siegel: Predictive analytics is the most powerful solution to the “too much data” problem (and is certainly not a contributor to the problem; it's a method to make use of data). Excitement over “big data” begs the question of what's to be done with all of it. Answer: The most actionable thing to get from data is attained by learning from it to render predictions for each individual, since those predictions directly inform and drive each of the millions of per-person decisions organizations make every day.

MR: What advice do you have for organizations interested in using predictive analytics to better understand their customers and consumers? Where should they start?

Siegel: To help people get started as users of this technology, we've set up the Predictive Analytics Guide, including reading, training programs, and other resources, www.pawcon.com/guide.

Nancy Pekala is the AMA's Senior Director of Online Content. Continue the conversation about predictive analytics in the Marketing Research Group of AMAConnect, the AMA's online community exclusively for marketing professionals.