



# SPOTLIGHT ON PLAYDOM



## DAVID BOTKIN, VP OF BUSINESS INTELLIGENCE

Playdom is a leading social gaming company owned by The Walt Disney Company. Millions of users on Facebook and MySpace download and play Playdom's games every day. As Vice President of Analytics, David Botkin oversees the team of engineers and analysts responsible for collecting and interpreting the massive quantities of data generated by these games. Tableau interviewed David at the 2010 Tableau Customer Conference. Playdom uses Tableau to "rapidly understand the behavior of our customers on our games and to figure out what's working for them and what's not."

**TABLEAU:**

***You obviously collect huge amounts of data at Playdom. Let's start with a few details about the size and type of that data.***

**DAVID:**

As of August 2010, we had over 240 million installs of our games. We have about eight million people a day playing them, and all those people generate a lot of data as they play the games. We collect about a billion rows of data per day from our games – about two terabytes a day.

We use that data in a variety of ways. We summarize it, so that product managers can see real-time stats for their games and know if anything is going wrong with them. Or if things are working well, they can monitor the results of tests. We also put the data in a data warehouse and put visualization tools like Tableau on top of it, so that we can understand patterns of user behavior over time.

**TABLEAU:**

***Tell me about how you use Vertica and Tableau together.***

**DAVID:**

We use Vertica as our data warehouse. We put a lot of user data into our Vertica data warehouse to study patterns of behavior and to break users into different segments, based on behavior or based on demographics or other attributes that we've captured. We use Tableau on top of Vertica to be able to dig in to that data and understand what's going on visually. We also use Tableau as a way of sharing standard reporting with the rest of the organization. If one game team has decided that there is a particularly useful way to visualize activity on their game, we might help them create a Tableau report showing that and make it available to others as well.

**“We want to create tools, we want to create a culture of analysis, and we want to make it easy for people to ask and answer the right questions on the front line to the business.”**

**TABLEAU:**

***How many people are using Tableau at Playdom?***

**DAVID:**

We currently have about 80 licenses on our Tableau Server. Most of those people are product managers, although we have a few marketing managers, finance managers, and people on our monetization and virality teams using Tableau as well.

**TABLEAU:**

***How did Playdom get started with Tableau?***

**DAVID:**

We got Tableau in December 2008, when we were still a fairly young company. Three of our first ten employees actually came from Pat

Hanrahan's lab at Stanford. They dropped out of their PhD programs to come build video games, so we sort of had Tableau in our blood from the start. One of the first tools that they put in place was Tableau.

I got to Playdom in June of 2009, and one of the first tools that I put in place was Vertica because we had great visualization tools, but they were running off data warehouses and data repositories that were too slow. Vertica made it possible to combine the best of both worlds, to have a fast database so we could iterate very quickly with good visualization on top of it.

**TABLEAU:**

***You were working in the business intelligence world at other companies before you came to Playdom. Can you tell me about the difference between your current solution and some of the other solutions you've worked with in the past?***

**DAVID:**

Yes, I've been at some big e-commerce companies in the past. I worked at eBay for a while, and I worked at CBS interactive for a few years. At both of those places we used a lot of different BI tools. At eBay I think I used Business Objects, MicroStrategy, Cognos, Essbase, and Informatica – maybe a few others. All those tools were great if you had very large teams to maintain them, but they tended

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to take a lot of effort to get going, they tended to evolve slowly, and they tended to put a wall between the engineering teams that were building reports and the business users who were using them.

What we like about Tableau is that there is no training required to use Tableau, or if there is it's maybe 15 to 30 minutes where we point people to a few reports. Our users can quickly get in and start to look at data. With some of the other tools, the training sessions could be a full day or longer, and you still wouldn't necessarily be able to use the full power of the tools.

**TABLEAU:**

***What kind of influence does Tableau have on your culture at Playdom, particularly interaction between functional groups?***

**DAVID:**

The culture of Playdom is to look at data continually and visualize it in many different ways. Tableau by itself hasn't changed the way we interact, but it's an important part of a suite of tools that we use to understand the behavior of our users and what it means for how we should be developing games or modifying ones that are out live.

**TABLEAU:**

***Tell me about how you've used Tableau to measure gamer engagement.***

**DAVID:**

One of the things we measure carefully and think is very important is how well we engage and retain our users. If a user comes today, is he or she likely to come back tomorrow? Sometimes that number changes. If people were typically 40% likely to come back tomorrow, sometimes that number might dip down, and we want to know if that's dipping down because there is something wrong with the game, or if it's dipping down because the type of people we're bringing are different.

A product manager looking at that trend on a chart would go to Tableau to figure it out. Tableau allows us to break a trend in retention into components. How well are we retaining users who come through advertising? How well are we retaining users who are cross-promoted from our other games? How well are we retaining users who have browsed through Facebook to find us? Those are the sorts of questions that we can answer, and if the answer is that we're not retaining our advertising users well, and we just started buying advertising to a lot of users and bringing in a lot of advertising traffic, then we know what to work on.

**TABLEAU:**

***Let's talk a little more about the kinds of analysis a product manager might be doing on his or her own product. What kind of data are they working with and what's the process?***

**DAVID:**

If a product manager is trying to understand some problem or some dynamic in their game and using Tableau, they will typically run against our Vertica data warehouse. Typically, they'll run against a table of user behavior that's a few hundred million rows, which is commonly used to look at behavior of users over time. Or, they might be looking at some detailed logs from their own game, which we load into Vertica when we want to do special analysis on a particular game. That data can be anywhere from few million to a hundred million rows.

The product manager will typically run a bunch of different cuts of the data using Tableau to look for patterns or to understand the behavior they're after. If we're querying a data set that's tens of millions to a few hundred millions of rows in Vertica using Tableau, we expect to get that data back in tens of seconds or less. So, it's a very useful tool for helping people to iterate as they think, and react to answers that they have seen to ask the next question.

**TABLEAU:**

***How would you describe the business benefits you've seen from using Tableau?***

**DAVID:**

The main business benefit that we get from using Tableau and Vertica is the ability to rapidly understand the behavior of our customers on our games and to figure out what's working for them and what's not. That lets us make the games better, so that we keep our customers for longer periods of time. We convince them to pay us more money because they are having so much fun, and we convince them to play other games as well.

**TABLEAU:**

***What kind of ROI have you gotten from Tableau?***

**DAVID:**

I've worked at companies where the BI and data warehouse teams were quite large, and there was a lot of inertia in terms of getting useful data analysis from those teams to end users. At Playdom I was determined to have a much leaner team that was much faster. Tools like Tableau that let us visually explore data directly with our end users and tools like Vertica that let us get answers back very quickly from big data sets help us do that – without a lot writing specs for reports and without a lot of delays while product managers figure out how to create new data structures. Everything works fairly seamlessly, and everything works very quickly.

**TABLEAU**

***It sounds like you're really focused on getting data into the hands of end users, so they can ask their own questions?***

**DAVID:**

Yes, our philosophy for BI and for analytics in general is to make the organization analytic – not necessarily to make the analytic organization as big as possible. We want to create tools, we want to create a culture of analysis, and we want to make it easy for people to ask and answer the right questions on the front line to the business.

**“Tableau allows us to break a trend in retention into components...”**

**TABLEAU:**

***How has speed of information changed since you've been working in the BI industry?***

**DAVID:**

BI and data warehousing have changed a lot in just a decade. At the beginning of this decade in the last internet bubble, I was at a company where a typical query that was very interesting for us to run would take an hour to return. If we wanted to iterate on that and ask follow up questions, and cut the data different ways, it meant an hour to return each time. It meant solving business problems could take days, or longer.

At Playdom, if a query doesn't return in about 20 seconds we get very upset, and the difference between 20 seconds and an hour is hundreds of iterations. It means we can ask questions, ask follow up questions, cut the data in many different ways, think and pause for 10 minutes and then ask more questions. It just gives us a lot more flexibility. That's not business specific, that's just the right way to do analysis.

**TABLEAU:**

***How does this ability to iterate quickly play out in terms of helping Playdom achieve business goals?***

**DAVID:**

With our games at Playdom, we're trying to continuously improve. So, we want to constantly test different user experiences and see which one works the best. Sometimes they are the best because the customers show that they love them by returning or being more engaged. Sometimes they are the best because they help us achieve financial goals, while the customers also show that they want to keep returning. Being able to look at large amounts of data to understand the behavior of different segments of users helps us evolve the games more quickly.

**TABLEAU:**

***In your opinion, what is driving the rapid advances in analytic technology? Are the end users of data demanding innovation, or is the technology itself driving ever-increasing user expectations?***

**DAVID:**

I think talented people in business, good consumers of analytics, have a lot of questions that they want to answer. How's my product doing? How are my marketing campaigns doing? How should I forecast the value of this thing that I'm creating? In my experience, whenever we answer a question like that, the best people will come back with ten more questions that are harder to answer. The more powerful technology we have for distilling the data into answers to those questions, the more we can help the end customers of analytics and BI and data warehouse teams to do their jobs and continuously improve.

**TABLEAU:**

***Any last thoughts on using Vertica and Tableau together?***

**DAVID:**

Compared to the tools I was working with when I started in this industry, Vertica and Tableau together are light years ahead both qualitatively and quantitatively. They enable us to answer hard questions extremely quickly, so that we can ask the next ones. I'm looking forward to great things from both in the future.

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