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Big Data in Horse Racing

MODERATOR:
Dick Powell: Consultant, Racing & Gaming Services

SPEAKERS:
Jim Corelis: Senior Vice President Product Development, STATS LLC
Tom Grossman: Lead Investor, Predicteform.com
Daniel Kustelski: Chief Operations Officer, watchandwager.com LLC
David Siegel: President, TrackMaster, an Equibase Company LLC
Shuran Wright: Chief of Operations, CHRIMS Inc.

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Ms. Liz Bracken: We would like to thank our beverage break sponsor, Equibase Company and TrackMaster, and also acknowledge the session sponsor, which is Premier Turf Club.

This panel is going to turn out to be very timely. If you were in the 45 ideas panel, they talked a lot about data, and that's what we're going to follow up with now. We have a lot of different viewpoints and a lot of good stuff to get through.

I'll introduce our moderator, should be no stranger to anybody who's been in our industry for about 27 years as a consultant and media representative, and I worked with him quite a bit when I was in New York.

Dick Powell will lead this panel. Currently, he is a consultant for Racing and Gaming Services, so I will turn it over to him.

Mr. Dick Powell: Thank you, Liz.

Good morning, everybody. We got an exciting day, so we're certainly gonna want to stay on schedule with the lunch especially, with the Baffert and Team American Pharoah being here, and then the opportunity to hear Bob get interviewed.

As Doug explained, there's a little bit of a change in the schedule today, so that should be a lot of fun. I think today's panel's gonna be a lot of fun, or at least interesting from a number of viewpoints.

The subject matter is big data. Big data can be defined by the source of everything, Wikipedia, as a broad term for data sets so large or complex that traditional data processing applications are inadequate.

Challenges include analysis, capture, data curation, search, sharing, storage, transfer, visualization, and information privacy.

What does all that mean? I don't know. That's why they made me the moderator, not a panelist, but we do have a terrific panel of five guests that will approach this subject from a variety of issues and a variety of standpoints and uses. I'll introduce them now, and then we'll quickly get into it.

Dave Siegel's been president of TrackMaster an Equibase Company for 23 years. He's gonna be leading off.

Behind him will be Jim Corelis, senior vice president of product development of STATS, which has now taken on all sorts of new meaning with fantasy issues and things like that, applications to horse racing.

Shuran Wright is the chief of operations for CHRIMS.

Dan Kustelski is the COO of WatchandWager.com. He's gonna talk about big data and big analysis at NADW.

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At the end, we're gonna have Tom Grossman, who is the lead investor of Predicteform.

Tom has a terrific background in racing. He runs a gigantic Standardbred breeding farm in New York, the Blue Chip Farm. They bred 900 mares last year.

He's all in with Standardbreds, and yet he's gone off in this new direction with Predicteform. I'm curious as a bettor, recently in the Matriarch Stakes, they came up with Stormy Lucy at $132.80 as the top pick, so Tom might be on to something with Predicteform.

We'll get started here. First up is gonna be Dave Siegel, president of TrackMaster.

Mr. David Siegel: Thank you, Dick, and of course, thank you to Doug Reed for inviting me here to participate today.

You're about to hear from my fellow panelists about big data, and in particular, big data for horse racing, but one cannot really speak to big data without talking about Equibase.

Equibase is a shining example of what the industry can do when it cooperates in a mutually beneficial way.

Back in 1990, Equibase was formed by a partnership between the Jockey Club and the Thoroughbred racing associations so that the industry could collaboratively control its own destiny with regard to Thoroughbred data.

Twenty five years have passed, and I'm going to share with you the benefits that this journey has had for the industry and how the presence of Equibase has aided the fortunes of tracks, horsemen, players, and the entrepreneurs that appear with me on this dais today.

Equibase has collected information about roughly 1.7 million races and over 14 million starts since its inception. I guess that qualifies as big data.

This works out to well over one billion in individual data elements that have been collected, quality controlled, and made available to industry partners and racing fans.

Nearly all of those pieces of data are available to the public in a variety of forms before and after the race, and nearly all are available at no charge to the consuming public.

At the cornerstone of its corporate objective lies the accurate and timely recording and archiving of racing information. This important tenet remains in place today, but Equibase is much more than simply an agency for the aggregation of data collection.

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It has acted as an industry leader in technology and the delivery of high utility information to tracks, players, fans, and value-added resellers.

While this panel is about so-called big data, let me highlight for you some of the offerings that Equibase has brought to the industry, many of them at no cost to users, that leverage the use of what I will call plain old data, and I will leave the big data discussion to my esteemed colleagues.

Now, at the core of historic data lies the data-rich race chart. Equibase posts these charts daily and has made available to the public the chart's archive going all the way back to 1991. Equibase has expanded its collection of this information over the years.

This information now includes run-up distances and rail distances in turf races, reasons for scratches, complete wagering results and pool totals, detailed race footnotes, and access to replays.

This is quite an expansion of the data collected 25 years ago, but equally as important, these comprehensive charts are now available minutes after a race rather than the next day.

Now, while all of this very plain old data may be interesting to view after a race, it is this data that serves as the basis for an offering that Equibase debuted in 2010 and expands annually called Stats Central.

STATS Central is a sortable, searchable, everything you wanted to know about racing and are not afraid to ask, go-to place for racing and statistics.

One can slice and dice information about horses, jockeys, trainers, and owners by year, by age, by race type, and other parameters to one's heart's content.

Users can view the best from a particular breeding year to the more challenged in a particular breeding year.

There are more combinations of requests possible than grains of sand on all the beaches in the world, and it is made available for every fan and every player free of charge.

I think this slide was particularly appropriate, given Darryl's comment from the previous panel about bringing the races anywhere and that they could race on the beach as well.

If one thinks about Stats Central as a look back using plain old data, I would like to change gears a little bit and do a look forward from a data user's perspective.

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Since its early days, Equibase has trail blazed the availability of information about upcoming races. Its entry pages have been a staple of the web since the mid-90s.

As smartphones developed, Equibase was again leading the industry, making a wealth of data available on that sized platform in both a mobile web offering, and more recently through today's racing application, which boasts over 15,000 daily users on iPhone and Android devices.

In 2015, Equibase eclipsed the two million page view per day level across all platforms. Needless to say, the fans have spoken.

Equibase offers far more than just entries and results for the world on the go. In recent years, it has added changes in weather, carryovers, access to virtual stable, and most recently, a free handicapping product aimed at the casual fan called Entries Plus.

Entries Plus offers fans a simpler way to view the key components of traditional past performances in graphical or tabular formats. It allows the users to manipulate the graphics and dig down below such graphical information into the data if they so choose.

We plan to continue to expand our efforts in the mobile area by making further improvements to the web and app versions of Equibase data.

Reflecting further Equibase's leadership position in the market, Equibase offers its virtual stable notification service. As I'm sure most of you know, this service allows players and fans to be alerted when particular horses, jockeys, and trainers are entered to race and also transmits those results after the races are over.

Over the years, virtual stable has been expanded and enhanced and now includes a multitude of features, including race series notifications for Triple Crown and Breeders' Cup, stakes and track notifications, and carryover alerts where players can set their personal minimums for such notifications.

Users can now manage their entire stable through their mobile devices or quickly add a horse while using the popular Today's Racing app.

Think about this. Equibase sends out approximately 100,000 notifications per day on average. Now, time prohibits me from going into detail about what Equibase has done for the casual fan.

America's Best Racing app and the Racing Yearbook were both initiatives that had their roots within Equibase, and more broadly, the Jockey Club.

Those apps have brought the best of racing to the American public. Now, while Equibase has achieved expert status with regard to all I have been discussing, we were smart enough to understand our own limitations with regard to big data.

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That understanding brought to mind an old proverb that I have referenced a number of times during my career, and I think two parts of that proverb are appropriate in Equibase's development of a relationship with Bloomberg Sports, now part of STATS LLC.

While Equibase certainly knows a lot about data and data for racing, we recognize ourselves as not being the most knowing, particularly in the area of big data, so we were willing to be taught, so to speak, which brings me to the second extraction from the proverb. The him in this case is STATS LLC.

The inference should be clear. STATS LLC is a recognized world leader in the use of big data in sports. Who better to follow, or in this case, partner with, than STATS LLC?

STATS LLC has expertise in dealing with large data sets in several major league sports, so they were a logical partner to collaborate with Equibase to deliver and present sophisticated data in new and more meaningful ways.

They have leveraged their expertise in information and analysis by applying it around the world in a variety of sports applications. Specifically, they have made a major impact in three key areas: Sports management, fantasy, and wagering applications.

With that in mind, allow me to introduce to you Jim Corelis. Jim is the senior vice president for product development for STATS LLC.

Thanks, Jim, for flying here today to address our industry.

Jim is going to tell what you STATS LLC is all about and give you some insights into the racing product that Stats is developing in partnership with Equibase. Jim?

Mr. Jim Corelis: Thanks, Dave. I'm Jim Corelis. I'm the senior VP of product development from STATS LLC. I'm gonna spend a little time today telling you about — a little bit about what we've done over the years, what our background is, how that segued into big data, and also a little bit on our partnership with Equibase and what we're building in the horse racing industry.

A little about, who is STATS LLC? Obviously, with the name, we're a company that's founded and based on sports statistics.

We've been around for 30 years. Going back 30 years, what it's — Dave referred to as plain old data.

We collected box score data. Primarily, that was used for newspapers and for people just maybe doing their fantasy game scoring.

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Over that time, we started to get customers like teams that were looking to use our data to make decisions and do analytics.

We collect our data. We produce it. We distribute that sports content to different media sites, broadcast partners.

We leverage that data to create experiences in sports products.

Everything we do today is geared towards the fan.

Even if the fan's not our direct customer, everything we do, whether it's through a broadcast partner like Fox Sports in making the broadcasts better for the fans, working with the teams to make the team better for their fans, or things that we do more with our partners direct to consumer just to make the fan experience better.

We do that through innovating in sports technology, which I'll get to a little bit later with our Sport View Technology. Really, it's all about being a good strategic partner with our clients, with our partners to advance their sport.

Analytics in sports.

If you go back to around 2003 when the book Moneyball came out, it really popularized what teams were doing with our data at that time.

The story was about Billy Beane and how his front office guys were fighting with the scouts, who were looking at a player and going with their gut feel on how a player might perform, whereas the front office guys, with more of a finance background, wanted to look at data and say that stats like on-base percentage and slugging percentage were key indicators of future performance.

When that book came out, subsequently, a movie, it really focused on using that data to make better decisions.

The A's were successful to a certain extent with that type of thinking, and other teams started to put together their own analytics departments. It wasn't just baseball.

The same types of analytics departments sprung up in football teams and in NBA teams and even started to come about in colleges and things like that.

What that did was, it pushed STATS LLC to start collecting more and more data, and as we collected more and more data, it became more big data.

If you go back to the early 2000s, we were doing — they would look and say which batter does better against lefties or righties, or even a particular lefty or a particular lefty or righty, and as teams started to use more and more of those stats, it pushed us to collect more and more data points.

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We started to incorporate weather data.

We started to incorporate not just what pitch someone threw, but what type of pitch it was and where it landed, where it came into the strike zone, and even where the batter might have put it in play so that you could adjust your defensive tendencies towards it.

As we got to around 2008, 2009, that Moneyball-type thinking started to morph into what other industries were coining big data, which primarily came out of the finance industry cuz they just had so much financial data that was out there that they needed to make sense of.

As it got around 2008, 2009, we really started to take sports data across all the sports and start mixing it with other data.

It wasn't just statistical data, but it was also the weather data. It was performance data.

It was even contract data to see, do certain players play better coming up on a contract here, and what is the value that you're looking to get?

As we collected more and more data, it became obvious that it really wasn't about the data so much anymore. It was about the insights that you could glean and the decisions that you could make from that data.

It was giving people access. If you look in the screen shots that I've got here, as the data started to get more and more massive amounts, we started to visualize more.

You can see in the top right, the — in baseball data, it was we were creating these heat maps that you could show players or show pitchers how you should pitch to a guy or how a pitcher's gonna pitch to you to make better sense.

On the bottom, a soccer heat map, so taking a ton of different data we collect about where players are passing the ball and taking their shots and being on the field to make better decisions about maybe how to guard them and things like that.

What really turned it for us is Sport View. In 2008, we started working on a technology that started to track — do player tracking on the field.

We started with soccer with a three-camera system where we started to track where all the soccer players were on the pitch, where they were taking their shots from, how fast they were going, how much energy they were expending.

In 2010, we took this data to the NBA.

What you see here is at Oracle Arena, we've got six cameras that are in all of the NBA arenas and some of the college arenas, and we're tracking all of the player movements, all of the ball movements at 25 frames per second.

Now we're talking about having over a million data points available for just one game, which is a massive, obviously, amount of data.

We were challenged with, okay, now we've got this data. Now what can we do with it?

It gets to the things that we're working on across basketball, across baseball, and even with horse racing is now you've got all of this data.

How can you help make sense of it for the user, whether the user is a coach, whether it's a fan, whether it's a player, whether it's a handicapper, whether it's a wagerer or a player, how can we come through and create all these insights?

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Through technology, computers are getting better. Processing speed is getting stronger. Database technology is advancing.

We're able to take all this data and really capture real-time insights and allow people to access this data.

Some of the examples I want to show in basketball, these are — watching a game, you might feel like this is what happens, but really, with our massive amounts of data, we're writing these algorithms to dig in and see that James Harden, for example, when he drives to the hoop, which is often, he can drive with his left hand, or he can drive with his right hand.

With his left hand, 37 percent of the time, 62 percent of the time with his right, but when he does drive with his left, his shot — the amount of times he shoots is 47 percent of the time versus with his right hand, it's 36. He's got more propensity to pass the ball if he goes with his right hand.

Coaches can use this data to help teach their team that when Harden goes with his left, he's less likely — 50 percent less likely to pass as he is with his right, so you can guard the guy differently.

These are insights that maybe before a coach had picked up on, but now there's the data that we're pulling out of the big data to help them make these decisions. Even things like effort, we can measure by pulling all that data.

Here's a leader board of how quick teams get back to their side of the court to play defense after something happens.

After a field goal is made, the Warriors are hustling back.

The Wizards hustle back best on field goals missed on field goal attempts.

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Things like this are things that coaches can look at and say, maybe we're getting beat on defense cuz we're not getting back fast enough.

This is the first time that we're able to take all the data from all the games and create these types of averages to help better decision making.

Just one more. When you're trying to compare two players, you can go points per game.

You can go assists per game.

You can use wins.

Really, those are all things that there's other factors into play. We're using big data to take all sorts of different factors to create player ratings.

For 2014-15 on player production rating per possession, you see that Russell Westbrook actually creates more production than a LeBron James or even a Stephen Curry. A lot of that just comes from the fact that he's the point guard and he does a lot more with the ball.

Just like in baseball or even in horse racing, we want to use all the massive amounts of data to create a rating for us to say who the best is and who the favorite is.

How does this extend to horse racing? The obvious answer is that there's data and that there's a lot of data and that there's a need to make sense of it.

Players in the horse racing industry are looking to make a lot of different decisions, whether it's wagering on a horse, or potentially even buying a horse or selling a horse, with this data.

About two years ago, Bloomberg Sports at the time, which has now been acquired by STATS LLC, and Equibase started to have discussions about what we were doing, what Bloomberg at the time was doing in predictive analytics and diving deeper into the game and making the insights easy to understand.

Took a look at what they were doing in basketball, what they were doing in baseball and football, and came to Equibase and said, "We'd like to extend this to horse racing and advance how a fan is gonna engage with your sport."

We've spent the last year and a half, we've done focus groups, we've created the user personas, and we've looked at the heavy wagerer and the weekend guy, how they use technology, how they use the — their mobile versus their laptop or the paper. What is it that they want to do?

Over that time, we've come up with our product idea and how we're gonna use technology, how we're gonna use some other fundamentals that TATS LLC uses with big data to create a better product for the horse racing customer, which led to our official announcement of our partnership in June last year at Saratoga.

What our core product is that we're building together right now is basically gonna be sitting on top of an analytics engine on a big data infrastructure.

The core features that we identified that we want to give users the ability to use are to back-test, do their advanced search.

Obviously, customization is key.

You've got all that data, and you need to understand, be able to take what you want to see and what your insights are as well and mix them with what you can pull out of the data.

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Then do things like race projections and then, obviously, you want to have it on the go, so you want it to be mobile-ready or be able to look at it on your laptop at home. Real quick just to run through some of the features.

Again, on the back-testing your angle, we're gonna be taking all those massive amounts of data which are stored in the database and create that analytics layer on top that a user's gonna be able to tap into.

As a user comes up with their different angles, we're gonna be giving them the ability to back-test those based on data that we've got in the database with quick speeds and a powerful back end.

Advanced search.

We want to make it easy for the user who may not be computer-savvy to go ahead and ask questions of the system, so there will be a lot of different options of data that we bring to the surface through our algorithms and — but also just make it easy for the user to come up with their own search criteria in the app.

Customizable PP. I think one of the big issues is gonna be with the mobile, there's just not that much space, so we want to allow the user to take the data that they're finding and create their own version to help them make their decisions.

Then predictive.

We have a data science team. As we've gotten more big data across all the sports, we've had to employ more folks that aren't just doing research and just digging into the data, but data science teams that are creating algorithms and using machine learning to really dig in and pull the insights out, create predictive analytics and other insights.

We're setting those guys loose on the horse racing data to create more win probabilities and things to help the end users.

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Of course, the multi-platform. We've got to think mobile first nowadays, but still giving people the opportunity to use the app wherever they are. What's next for STATS LLC?

Across all sports, and when I say all sports, it now includes horse racing with our partnership with Equibase.

We're pulling together all sorts of new data sources. For us with many of the other sports, it's tracking, so it's taking our traditional data collection elements and meshing it with the tracking data, with the positional data, and also with physical data through things like patches and stuff where you can get heart rate and all that.

Weather data.

Just all the different data for us to build up a much more massive database and take advantage of new database structures and able to — ability to look at the data.

Data science. Again, we now have a chief data scientist, which I'm not sure we would have thought we would have had five years ago, so much more focused on analysis.

We got some really smart, smart guys with MIT, Carnegie Mellon type backgrounds digging into the data, creating those insights just really to unleash them for the fans, ultimately.

Then technology.

As you're crunching through all this big data, making it available to your end users, the infrastructure of 2000 or 2005 isn't fast enough for that.

We've spent a lot of time in transforming the way that we do things, becoming more cloud-based, being more scalable horizontally so that we can dig in and crunch the data that the users want.

Then lastly, and probably most importantly, is helping to make sense of the data.

We made an acquisition last year called — of a company called Automated Insights. The main driver of that is you've got all this data right now, and you really need to make sense of it to be able to use it.

What Automated Insights does is it has a natural language search and capability to dig into the data and actually make readable output so you can read a story or — not just looking at the data.

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We're also taking that to — and adding it to all of our programs and things like that to create more readable output to make use of all the insights that we're creating today.

Mr. Dick Powell: Thanks, Jim.

That's the data collection side of the equation.

We have to use that data somehow, and one of the persons doing that is Shuran Wright.

She's the director of data operations for CHRIMS, which is a company that provides technology solutions for the pari-mutuel industry. Shuran?

Ms. Shuran Wright: Thank you, Dick, and thank you to Doug and Liz for asking me to be here today.

I wanted to start out talking a little bit about what big data is. CHRIMS and PGSI has been working over the last couple years on research and development, using big data technologies, and learning how to apply them to the horse racing industry.

Before I get into these applications and ideas, I want to talk a little bit about big data itself.

What is big data?

There are a lot of definitions and interpretations on this, but to sum it up for a business user, big data is a collection of data from internal and external sources that represents a source for ongoing discovery and analysis.

Not to miss out on the regular definitions, here is another way of understanding big data.

Large data sets of data which traditional data processes applications are inadequate to handle. Defined by its volume, variety, velocity, and veracity. The four Vs of big data.

Volume. The size of the data being processed.

Velocity. The speed at which the data is produced and received.

Veracity. Uncertainty and unknown patterns of data.

Variety. Data coming in different formats, such as social media, audio, video, SMS, and file streams.

Where can we use big data? Like many new information technologies, big data can bring about dramatic cost reductions, substantial improvements in the time required to perform a computing task or new product and service offerings.

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Big data technologies do the job by distributing the workloads to multiple processing servers and effectively using computing powers.

Reducing hardware costs and increase in distributed technology maturity has given way to efficiency in big data.

Who is using big data and for what?

The first organizations to embrace it were online and startup firms.

Firms like Google, eBay, LinkedIn, and Facebook were built around big data from the beginning.

Lots of tools and companies have come providing big data solutions to users.

Some of them are technology companies, and some of them are business services, some of which include advertisement and media applications, business and intelligent tools, analytics and visualization, data as a service model, infrastructure as a service model, and log data analytics.

The velocity of the aspect of the big data is the biggest challenge faced when attempting to use this information.

We have evolved from the mainframe age to the social and cloud age. With all the connected devices, such as laptops, desktops, mobile phones, tablets, smartwatches and Internet-enabled devices, data is being produced at an unimaginable speed.

Wal-Mart handles more than one million customer transactions every hour.

Facebook handles 40 billion photos from its user base.

Online gaming systems support millions of concurrent users, each producing multiple inputs per second.

To process this kind of data and to make sense of it, we need a different type of data processing power.

Big data technologies and tools is what makes it possible for business users to analyze and make sense of this data madness.

As demonstrated in a prior slide, most large organizations have been working to stay ahead of the curve with the volume of data as it's being generated each day.

This forecast indicates the growth of which data will not slow down, but will continue to increase at an exponential rate.

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Because of the technology-rich society that we live in, we are able to track data that we have never been able to capture before.

For example, my smartwatch tells me at the click of a button how many steps I've taken, minutes of exercise I have or haven't done, or how many yards I am away from the hole on the golf course.

These are all data points that I didn't know that I needed until I had them available at my fingertips.

Big data technologies are allowing for us to gain knowledge and insight on everyday activities in volumes which are hard to imagine.

Our challenge is to filter and present this data in a way that is beneficial to the end user. Once collected and parsed, big data can help detect trends and patterns that

allow companies to more efficiently spend resources on everything from marketing, ad placement, risk analysis, security, and so forth.

The horse racing industry has several different sources for racing information.

Big data opens up the possibilities of pooling data from several of these resources to build tools that we've never been able to before.

The big data technologies that exist are able to handle the large volumes of this data from these sources as well as create links between them that we have not thought about before.

Now that we have the technology in place to make the connections between the various data resources available in the racing industry, we are able to provide analytical tools that can be used by racetracks and patrons alike.

In the stock trading business, companies like eTrade, Charles Schwab, and Scottrade have built a myriad of tools to allow their clients to see trends and make educated decisions in trading — in their trading activities.

These same types of tools can be built and applied to the racing industry.

Big data technologies allow us to use our different available data touch points to build such tools for our industry where before would have been too cost-prohibitive for a racetrack to build for itself or for the betting public.

The technology now exists for us to use new data sources, such as video and thermal photography like Jim was touching on, to analyze the horse's running style, hot spots and trends, and pair it with our information, such as the jockey's riding style.

Using this video data technology, we can generate overlays of multiple videos to see how the styles have changed race to race.

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Using real-time data streams available from AmTote providers, CHRIMS and PGSI has been working to build a dashboard system of tools and reports to show handle standings throughout the race day.

This handle comparison report shows the track in real time, handle comparatives to specified comparative dates as specified by the user.

This report can be used on a race-by-race basis or on a daily total comparative level. As the data feed is continually loading into the database throughout the race day, in real time, our tracks are able to visually see handle compared to prior years.

Another tool in the CHRIMS PGSI dashboard is our handle by source report. Similar to the handles in comparison report, this report shows real-time handle data source on track, ITW, and ADW compared to the prior year.

This allows the user to see at a glance where their live handle is coming from.

CHRIMS and PGSI has been working with NYRA and AmTote during the last two years on developing new tools to replace the antiquated method still in use industry-wide.

We have worked with NYRA to learn where the lack of — area of automation and technology, and we have worked with AmTote to learn what data is available and how it can be presented in a valuable interface, allowing the tracks to see what's happening with their pools and in real time.

Thank you.

Mr. Dick Powell: Thanks, Shuran. Next speaker will be Dan Kustelski. He's the COO of WatchandWager.com, and he's gonna talk about big data, big analysis within the ADW. Dan?

Mr. Daniel Kustelski: Thank you for allowing me the opportunity to speak.

I'm the guy that actually ends up drinking from the fire hose of all of this data and trying to make sense of it, and to some extent, make decision businesses on all of this information that comes to it — comes to me.

To some extent, it's not really — it's not a real simple job.

It's one thing to say that Harden should drive left instead of drive right.

There is an alternative. He could pass the ball.

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There are lots of things in the data that it could tell you. There's lots of things that it's not. That's probably where it's one part art, one part science.

The science is certainly growing at an exponential rate. The amount of information that I'm able to get from my AmTote betting engine, it's unbelievable.

Millions and millions and millions of data points on a given day or on a given week. The question is, what do I do with that, and how do I look at my business, and then how do I make decisions on that?

I talked about my betting engine, and that's just one piece. That pretty much tells me everything that I need to know about once that punter goes into the betting engine.

Player X comes in on Monday mornings, looks at their statement, exits. They've got an account balance.

They're betting on harness racing on Tuesday. They're making a deposit on Wednesday morning at 9:00 on their mobile because, for some reason, that's their pattern.

If they win, they're gonna withdraw on Thursday.

They're gonna deposit again on Friday.

You multiply that by all the other customers that I've got, and you start to understand your business quite well. It is the heart of the operation.

The challenge though is that there's other parts of my business, such as the website.

There's a lot of things that happen before that person actually comes onto my website or the mobile site and logs in.

How many times does it take for them to actually go onto my website before they actually do anything there?

That's not captured in this betting engine, and so that's where getting information from an alternative source like the website or mobile site through Google Analytics is critically important.

Then there's a bunch of other things like the bank accounts and communications tools, open rates on e-mail sends, SMSs.

You've also got some affiliate information, loyalty programs.

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You've got all of these different systems, and you're trying to amalgamate all of this information into one place and make decisions based on that.

Then there are commercially available BI tools.

We at watchandwager, we use one called Click. It's commercially available. It's pretty easy to use, and the only reason why I use it is because I understand it well.

There's a whole bunch of other ones. It just helps me drive the car. That's effectively what it does, and it visualizes the story.

We've talked a lot about the visualization of this. Its speed and accuracy certainly allows me to get all this information pretty quickly and then allows me to make those decisions.

If say, for instance, I integrate a payment processor, and I don't realize that that payment processor is failing nine out of ten transactions until a month later, I've probably lost buckets and buckets of customers as well as buckets and buckets of deposits.

There are commercially available BI tools. Like I said, I use Click. There's also gaming-specific ones. You might have heard of them.

There's one called Optimove. I can't really tell you exactly what you may need to use in your own style.

I'll use an example. I previously ran a sports book in South Africa.

I started a sports book and sold it to a big casino group. While we were dealing with that big casino group, we got to deal with Microgaming.

Microgaming's one of the biggest online gaming providers in the world. We got to talk to all the people who operated their software.

Some of them use the BI tools that Microgaming has put millions and millions of dollars into to get that right and provide those operators with the information that they need, but the other half just say, "You know what?

It's not what I need. I need X, Y, and Z."

As good as some of those BI tools might be for some of — for some people, it's probably not adequate for other people.

Now I'm to the point where I've amalgamated all of this data.

The big question is, okay, now what?

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There's some familiar KPIs that I'm gonna be looking at, signups and deposit rates and how much time does it take for somebody to sign up before they actually deposit because as an operator, I actually want to reduce that down to as short an amount of time as possible.

Same thing with deposits.

How long does it take for somebody to make the first deposit versus the second deposit?

Cycle times. How long does it take for them to make a deposit, place a bet, and then actually end up withdrawing?

Because I would like for them to actually go through that entire process because then they at least trust the system, and system trust and online trust is critically important in online gaming space.

Then there's a whole host of marketing KPIs that we can look at from acquisition costs. We spend $1.00. What do we get for that $1.00?

How much money do we need to spend in order to retain people and keep them loyal? What's my decay rate?

Those types of things.

The example on the bottom is from a company called Betsson.

They're one of the better software — casino software operators in Europe.

What we were doing — we were working on a project, and what we were doing is, we went to Arsenal Football Club and we said, "Hey, listen, guys. You guys need your own casino. You can make money off of it, earn a cut of it, and it'll help build the brand for Arsenal."

Betsson was the software provider.

Betsson's business development team put this graph up for almost every single time we had any discussion about projections, forecasts, those types of things.

They said, look, we know that our customers here in Europe are gonna be on the system for 18 months.

There's not an awful lot we can do about changing that 18 months.

We've tried to market to them at month nine, month ten, but you know what? There's gonna be a decay.

They're gonna come in.

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They're gonna slowly get used to the system — and this is on a sports book, mind you.

A casino would probably be about six months.

They're gonna peak out at about six months, and that's it.

In order for them to get to that one graph that every single one of those super smart actuaries sitting at Betsson created, it took billions of data points for them to normalize every single one of their clients, go back to month one, which was the month that they deposited, and what happened since then?

That percentage is their net revenue, so it's all a financial projection for them.

As difficult and as complicated sometimes as big data is, the real challenge is actually just to simplify it all, certainly as an operator.

Just a couple of considerations.

The data's important, but it's really about the analysis, and how do you analyze it?

About consistency over time because if you're starting to measure one thing, you need to keep measuring it the same way all the time.

In my previous business, one time, we changed the way that we tracked customers, whether they placed — what date they placed the bet or what date the bet was resulted, and that's a very, very different-looking graph.

Very different.

Just take an NFL football game. People are betting on that throughout the week. You want to see how much betting happens on a Monday or a Tuesday or a Wednesday or Thursday, but if you wait and you only look at the data from when the event actually took place and when it was resulted, which is after the game, you don't get some of that richness that you need to look at.

It also tells you the things that aren't happening.

Decay rates.

Who's falling off?

Failed registrations.

How many people are actually touching your — hitting your join now button and versus how many actual registrations do you have, and what's that percentage?

If you measure that over the past 24 months, what does that look like?

Is that increasing, or is that decreasing?

Then at the end of it all, I suppose you can turn this into — and I have at WatchandWager — just turn it into KPIs for customer service, marketing, finance, those types of things, so that everybody is looking at the same data points, and we're all measuring the same things together because we've already determined what those KPIs need to be as an operator. That's my perspective on big data. Thank you very much.

Mr. Dick Powell: Thanks, Dan.

Next speaker will be Tom Grossman. Tom is the lead investor of something called Predicteform, which is a relatively recent development in handicap analysis of horse

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races, so he's gonna go through how big data helps his company. Tom?

Mr. Tom Grossman: Thank you very much.

We thought we would tell the story of Predicteform, which I think really serves as a microcosm for how big data has been and is being used and the development of that, and then hopefully how it can help spur interest from betters or potential bettors that aren't involved in the business today.

Quickly, some of our — my other members of the panel here have gone over a lot of this, but clearly, I don't need to demonstrate to you that there's a — there is a proliferation of big data in sports analytics.

There were, as it states up there, 3,000 attendees of the Sloan Data Sports Analytics Conference, and the proliferation of all of the fantasy sports, et cetera, which has gone — been gone over here quite extensively, so I wasn't waste any time on that.

I think, as a couple of the people have already said, the pain point is really in going from this raw data to information.

I think, again, as a microcosm for so many things in this industry, horse racing was really, if you think about it, way ahead of other sports in terms of big data. The racing form back 10, 15, 20 years ago had a lot more data in it than anyone could get for NFL football game or whatever.

Obviously, like a lot of our graphs, ours has stayed very steady, and theirs have hockey-sticked higher, which is a whole bigger issue for our industry.

The point is that big data has been available to horse racing, or something that feels a hell of a lot like big data has existed for quite a while.

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The same problem has existed that has always existed, which is, so what? How can we use that data to help drive the sport?

We've had a very interesting history in how that would go as the computability of the data has increased.

I'd go quickly over our history cuz I do think it is a microcosm.

Equiform, which was the predecessor of Predicteform, was started by a guy named Cary Fotias in 1992.

This was when the, quote, speed figures of which everyone has — a lot of people have them — were out there, and he was disillusioned with it.

Cary took, essentially, 70 or 80 percent of what we consider big data now in 1992, 3, 4, et cetera, and took the data and then took a pencil to it and calculated speed figures.

Our speed figures are different in that we look at quarter-times and half-times and three-quarter-times, which I'll get into in detail.

The point is that he and a small band of warriors really took that data set back then when there wasn't the easily parsed and computability's and hand-calculated speed figures.

In doing so, you obviously learn a hell of a lot about the interplay of the raw data into what we would consider information.

He had a very loyal following of very big sophisticated betters, as one would expect, because it worked.

Recently, when we bought the company, we introduced that which was — I would say the second step.

There's big data.

Then there's Cary with his pencil.

We rewrote the code so that we could basically calculate the exact same figures he were — he was for one or two or three or four tracks for all the tracks across the country every day, and obviously added a consumer-friendly web interface for people to look at.

I think this is the key point of what everyone here is talking about today, which is big data — I could never do as good a job explaining exactly what it is out there.

I think one of the references that was made today, which I grew up in the equity business, but as big data was available to people who were not traditional stock analysts and never read a 10K or et cetera became available to real quant lines the whole stock market changed, which is — obviously, we're a small microcosm of that.

The first level of automation and getting into analytics was those pace figures, which could, if you had an army of scribes, be done by pencil cuz it was done that way for a lot of years.

We're gonna get to some examples quickly, but I think that is extremely interesting to sophisticated people that are already in the business, and it's marginally effective, and it makes a small group of people make a lot of money in their betting account.

It doesn't really do anything for the industry, which is really our topic today.

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I could go into detail about how I think our product is very special, and that would only be interesting to those you love handicapping and also like money.

We're in a bigger picture here, and we're going to see how it can help the industry.

We then take from those raw pace figures of us, there's another form of analysis, which brings it down to a value play, which really answers the question of the guy we're trying to get into the industry, which is, who do I bet?

We then go into the race analyzer, which will help adjust that for odds, and then the race finder, which is to find other races that would fit that criteria.

I think the point of this, which should be obvious after most of my colleagues here, is that the funnel goes down, and the sophisticated player and the way it's evolved has been from the top down.

What we're finding on our site, which I think is the main point here, is that if we can get in into easily consumable data points, who do I bet?

We can get people into betting, and then they'll go back up the curve to say, okay, how did you get there?

When we get engaged in that, and they see patterns that they like — and we'll get to some of these — things that work at certain tracks, at certain distances, or maybe they just got lucky with the first race that they happened to look at that we did, although the statistics say it wasn't all luck, and they then do that exploration back up the curve, I think that's the beauty of analytics added to big data.

The drinking from the fire hose is a great analogy.

It helps a small few of us that are already in it, and they're gonna bet as much as they humanly can pretty much every week, et cetera, but bringing new people into the game, which I think is obviously a much bigger focus for the group at large, I think really comes down to going down that funnel, getting them in, and then taking them back up the funnel, which we have some — a fairly decent experience with, and we can talk to that in detail.

This is what drives — this is that first step down the funnel, which is the pace figures. Again, there's a lot of other services that have a one-number figure that, obviously, we think ours is as good or better as.

The point is that this shows you the raw data.

I think it's a little hard to see, but we have a two-furlong pace figure, depending on the length of the race.

The final pace figure, which is what most people look at.

We also calculate something called—we do a form cycle analysis which, without getting into too much detail, is the interrelationship between those pace figures.

One of the insights, for instance, that comes out of that, which some here will know well, is that it's very clear that almost all dirt races are a case of deceleration, and the horses are going as fast as they humanly can — as fast as they can out of the gate and decelerate through the race, and turf races tend to be the opposite.

How you calculate the interrelationship between those figures to come up with some of these form cycle analyses, which will be a code that says a couple of things have happened, and this is a new pace top or what will come to a later example, a pace low.

Really made sense to me.

I'm not only a data guy and a former stock trader and I own part of this company, but I own a lot of horses.

I talk to a lot of people who train horses, and it's fascinating for them to get into the product when they feel that some of our pace — some of our form cycle analysis relates to what they're doing with the blood and guts animal.

There's something where we'll come up with a double top and say that there was a huge exertion of energy in that — for that horse in that race, and it's likely to bounce. All terms you guys know well.

It's very interesting to see when you see good trainers and you see a double top, and then the horse gets four or five months off fairly consistently.

That ties in, again, some of us who are much more in the good and guts of the horse versus just data and quant and looking at it totally unassociated.

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The same way that some of the best hedge funds in equity investing right now know nothing about companies' economics, et cetera, and 20 years ago, that would be not fathomable.

Again, also to the Moneyball analogy, that again ties in, the old traditional scout that just seeing that magic in the player versus the guy that's just looking at statistics.

I think we've been able to demonstrate to both sides that there is, as always, a marriage in between.

These pace figures, again, were first put out just like that.

The sophisticated user went through a process, and he looked for certain things, et cetera. We try to automate that in the value plays, which takes that same raw data from the last slide and takes the work out of handicapping.

It's a proprietary formula, but it would be obvious to you what you would do with those raw data if you were a real handicapper.

We look at the average number per horse in the race. If it's a much more similar race to the race today, we weight that higher. More recent information is weighted higher.

We just form a multifactor formula that the weights do change a little bit. The form cycle patterns would influence it as well.

We break them out into, independent of odds at this point, what the top contender would be the most likely winner, horses that could show improvement or breakouts or too slow or very unlikely to be in contention.

I'd say again to the dedicated handicappers out there that are trying to — particularly the ones trying to do multiple tracks, this is a great tool.

One of the things it does is you can throw out 35 or 40 percent of the horses, if you believe in our system, and really then spend time on the other — on the rest of the horses to generate where you want to place your bet.

This is the big step towards getting that new guy in cuz it does come down to a conclusion.

I apologize for the small print. This is a value play, the Stormy Lucy bet that was discussed earlier.

You can see in the one, two, three, fourth column to the right, they're ranked by value, which is not necessarily — as you can see, the top horse there is not the top contender.

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We thought the seven horse there was the top contender.

However, Stormy Lucy was 20-to-1 in the morning line, wound up going off much higher, which was somewhat fortunate, which I'll get to.

When we put that into the algorithm that I discussed before, it became the top value play, and this one happened to work.

I'm not saying they all work like that, obviously. I would point out that the last final — the last race final figure, which is circled in red, was 77.

That's only a part of the algorithm that made it our top value play, but I would point out that it is very different. He did not get a high buyer or a high speed

rating at some of the other services, et cetera. I'd also point out that's probably — if he had, he wouldn't have been to 20-to-1 morning line or 65-to-1 in the final.

Quickly, just going even simpler or adding onto that, the race analyzer is really the same thing we talked about, but it gives you the freedom to adjust the odds.

As the week progresses, and if it's Breeders' Cup and you start to get a feel for where the odds are gonna be or certainly when the pools are open, you can just adjust those odds, the arrow on the right, and then recalculate.

Hit the recalculate button, and it will change, obviously, if it's — if the odds have changed a lot, it will change our top value.

The race finder starts going back up that chain again, and it says — it looks backwards to project forward, as we say here.

The data engine allows users to find results and upcoming races that match those criteria.

Very quickly.

Some other people are working on it as well, and we obviously can calculate statistics based on that.

Again, I apologize for the hard to read, but on the left, what we're saying is, I believe in the pace low.

It goes back again to turf races, which are a form of acceleration.

We say if the four-furlong number is extremely low relative to the final, that that horse started low, maybe didn't get there, but accelerated really well through the race. It's something I like in turf races particularly.

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In these fields on the top, we can say, I want to find pace lows at a mile or longer in real races so the purse is at 25,000—250,000, so we're really looking at stakes races, and again, turf only.

As you can see in the second panel on the left, the reason I was interested in this is the top value play, if it met all those criteria on the right, had won 16.7 percent of the races, but its win ROI was 115 percent.

It was something that was working then.

Obviously, these things come and go, but it did work.

Most importantly, and I am looking backwards here, but if we had done this before the Stormy Lucy race and I didn't know who Stormy Lucy was, but I was looking for horses that fit this criteria, the third panel on there says any upcoming races where

there is a stakes race at a mile or longer where a horse has a pace low, tell me, and it would have given you Stormy Lucy.

Certainly, it was in Del Mar, obviously, on that date. Again, I think we've gone all the way from that big fire pipe of data.

I think we've analyzed it all the way at the bottom.

I think we have a small amount of references for ourselves to say that we've drawn new players in with the, who do I bet, and taken them back up the channel and they start buying more race cards or monthly subscriptions, et cetera. I would hope in the bigger picture that this is an example, a microcosm of how we can grow interest in the gambling side of the business.

Again, it really starts from one guy, a true zealot, taking data from that fire hose and calculating in pencil, and we've gone all the way down and back up and hope that it can help the whole industry. Thank you.

Mr. Dick Powell: That's a name I haven't heard in a while, Cary Fotias. Cary was a tremendously colorful character. He passed away a few years back. He was just great. He was way ahead of his time with what he was working on and doing it by hand with some restraints on him.

Cary was a real leader in analyzing races and uncovering horses that you might not look at with many glances. I like to handicap, and I do it professionally.

I handicap every race for Brisnet, at NYRA, Breeders' Cup, Triple Crown, spend about four hours a night doing my work, a lot of writing. I write about 2,500 words of analysis for each day's card.

What I find in analyzing all that data is, do I go too far?

I'll see a two-year-old, and I'll see it sold for good money. Gee, the dam's pretty good. Oh, gee, the dam's produced some nice runners. Then I'll look up the dam. Because I have access to the whole menu of Brisnet products, I can go in and look at the pedigree reports.

I can then go further in and look at the lifetime past performances of the horses of the dam, whether she won first time out, stuff like that.

In the back of my head, I always have, am I doing too much?

Have I got into irrelevancy, that I have too much data?

The beauty of some of these programs is the programs can have enough data that they're able to analyze and they're able to do all these things, but with myself, there's a real fear of over-handicapping and overanalyzing, having too much data

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that can cloud your judgment, cuz as Dan pointed out with the art and science, there is an art.

The computer can just rely on science, but as a handicapper, I have to rely on some art, and if I get down to A and B, who do I pick?

Now, in racing, A is greater than B, and B is greater than C, but A is not necessarily greater than C cuz there's lots of factors that turn that equation around.

That's what we try to analyze as handicappers and do our best.

We have a lot of data out there. One of them is Trakus, and does a great job capturing data and very useful stuff for handicapping and to get tracks to show customers even visuals of races, 3D, stuff like that.

Just throw it out to David here.

Are we using that correctly?

Are there other ways of using that type of information and how we can better utilize lots of data that's out there with the restrictions of smartphones and landscape without a lot of space?

Mr. David Siegel: Sure. We think that Trakus information is terrific.

One of the problems is that it's not universal right now.

I think it's installed at about a dozen racetracks.

What we would hope is that there would be technologies, and we think there is, that are out there in the future that would be able to get those prices and the cost of operations down so we could have that type of data basically ubiquitously available.

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Now, when you get into data that folks have talked to, like millions of data points a race where it's almost stride for stride, lots of sampling per second, no human can possibly ingest all of that data. That's where companies like Stats come into play.

I think when that data is more universally available, or even potentially with its limited availability today, you'll see the big data experts who will take a look at that and take it all from art into science and be able to develop a product that will be consumer-friendly that will reflect the insights that are likely there, deeply embedded within that detailed information.

Mr. Dick Powell: One thing that came up this morning in a preceding panel, which was just terrific, the 45 ideas in 45 minutes, was social media.

Are we running the risk of alienating our long-term traditional customers when we talk about Twitter and everything else?

I hang out with a lot of horseplayers. They're not on Twitter.

I'm sorry.

You think Twitter's gonna reach them?

Try again.

Now, that's not to say that Twitter's not a great tool, and especially if it's part of a strategy for millennials and things like that, but going back down to NTRA and the Go Baby Go campaign, which Amy pointed out was quite a while ago and most of the students were here probably in kindergarten when that came out, but it alienated your current customer.

We all want new customers, but then I think we have to be really careful of alienating the existing customer and exclude them inadvertently from marketing strategies.

Now, do we have a risk with big data of doing something similar in a sense that we get so computerized and so analytical?

We do have people that play horses mostly through art, not a lot of science, and yet can be very successful.

Where do you think the line is, the balance of trying to avoid that and make sure that we're hitting all the various racing groups and people that are participating in the game?

I think Tom might have an opinion.

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Mr. Tom Grossman: My first thought is, I would look at the stock market again.

I think that that a large portion of certainly the volume, but all of investment analysis, et cetera, is done by people that aren't traditional stock analysts and stock investors.

Certainly, then when you couple that with rapid-fire trading, et cetera, which we're grappling with in our industry as well, it's been a real conflict, and unresolved, really.

I would say that that it's here to stay and that we have to deal with it, and to a large extent, I hate to say it, but I think our traditional customer can't be killed.

We've thrown so much stuff at them. They're like cockroaches. They won't die other than from old age. I think we need to do the best we can to embrace the new

generation or the new player.

Mr. Dick Powell: Good point.

Any other comments, panel?

Shuran, you got anything?

Ms. Shuran Wright: Not particularly.

Mr. Dick Powell: We certainly have time for questions from the audience.

Appreciate it if you can use the front microphone here if you have any comments or questions or anything else.

Otherwise, we'll keep it going for a little bit longer.

I wrote a column years ago called — I'll see to this gentleman. Go ahead.

Audience Member: Yes. Just a general question for the panel, how you would comment on the difference between data, information, and knowledge cuz we all know we have tons and tons of data, but just we need to make decisions. I'm just curious.

Mr. Dick Powell: Very good. Come on. That's why we have you guys here.

Mr. Daniel Kustelski: I'll try and eat that elephant one little bite at a time.

Yeah.

I think I was trying to allude to that.

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In my industry, I have the ability to look at zillions and zillions of data points, and that's really, it's useless to me, most of it is.

If I don't know what I'm looking for or have the experience to at least say, let me look at this data set, which will then allow me to then ask the question, you know what would be interesting is to do — to find this out.

That's probably where you're going from data to information and then from information to knowledge.

You have to make a decision on that. There's no point in looking at all of this information and trying to figure out — as an operator of a company, I'm making decisions nonstop.

Those decisions need to be based on good data analysis.

I think that that's probably where the three tiers lie.

There's a lot of bad decisions.

That's how you end up making good decisions is through a series of bad decisions, but hopefully, that data will prevent some of those bad decisions being made.

Mr. Jim Corelis: Yeah. A lot of that comes out of the creating good dashboards to sit on top of the data cuz the knowledge comes from making the choice to use all the thing at your fingertips to make the best decisions.

The data by itself is — there's a lot there.

Creating the right dashboards, making sure you've got the right visualizations and analytics to better tell the story to help you is what you need to do. You need to use all three of those.

Ms. Shuran Wright: I think Tom actually had a good slide on his presentation to visually demonstrate we're starting with all of these data points at the top, and we have to funnel it down because there's no way that we can expect the betting public to understand what they're looking at without funneling all this information down.

I know when I first started my career in horse racing, it was very intimidating for me personally, taking in all of this information not knowing about workouts and all of that sort of stuff and be able to funnel it down into useable information and then knowledge.

Mr. Jim Corelis: I would just add again that the — other than statistical significance, which everyone here could speak to better than me, when it also makes sense physically, and you understand that the race decelerates through time, and he was accelerating through time, and that the statistic make sense to someone in not a purely quantitative context, I think it sinks in a lot better and gets by in a lot better from the less statistically sophisticated consumer.

Mr. Dick Powell: Next?

Audience Member: I think you've all talked about the intimidation factor to new fans, the first-time shooter showing up at your racetrack.

If you were at the beginning of your meet and you were gonna do a fan education seminar for an hour prior to opening day, what key element would each of you put into that program to get them interested and get them over that intimidation factor?

Mr. David Siegel: I'll take a shot at it, Dan.

I think you have to really identify what that new fan wants to be able to answer that question. I think it's the old question, who do you like in this race?

I think that new fan wants to pretty much be told what to do and not get so involved in all of the particulars of the data analysis.

I would be pointing that fan to something very, very, very simplistic and something that I hope Jim, or I know Jim to my right is going to address when the products ultimately come out.

It's basically something that tells, here's the horses' likelihood to win. You don't have to understand anything about it.

It's got a 20 percent chance to win this race.

If you can get odds at least equivalent to that, that's a reasonable play.

Keep it that simple and to get excited about the race itself first rather than the analytical aspects of it.

Just keep it as simple as possible.

Mr. Dick Powell: Todd?

Mr. Todd Bowker: Todd Bowker with Premier Turf Club.

A couple of things.

Number one, I'm glad that the horse racing data is starting to get out there. I remember I very briefly wrote some blog posts several years ago.

I remember watching Mike and Mike in the Morning on ESPN, and that particular day — and I don't remember who the person was, but we had somebody in baseball, throw a no-hitter.

They came out with a stat that was incredible.

It had something to do with this was the first no-hitter ever done on a Tuesday by this team in this stadium.

I looked at that, and I went, A, how on earth did anybody figure that out, and B, how did the guys on the announcer's table decide that that was a good stat to tell everybody?

It was incredible to me that they could put their — wrap their heads around that.

My guess is they probably used your company to come up with the information. At that time, I decided, okay, what other stuff could we find?

I just did a simple Google search and went out and found a website.

I don't know if anybody here knows Ben Hayes, but Ben is an attorney. He's done some work for us when I was running America TAB and U.S. Off Track.

Most importantly to this discussion, he was a baseball player, played for the Cincinnati Reds for a couple of years, and he was a pitcher.

I went to the website, I typed up his name, and sure enough, not only did I have his pitching stats, but I had his batting stats cuz he was in the National League.

This was somebody that wasn't a big star. I would have expected to be able to find Hank Aaron's stats, but somebody who played for a year and a half in the major leagues and wasn't a star, it was interesting that that fast, I could get there.

At that time, you couldn't do that in horse racing. Unless it was Secretariat or American Pharoah or whatever, you could find a website that maybe had their stats or their starts, but for Zippy Chippy, you probably couldn't have found that information.

It's great that we're starting to get there to where it's available and easily findable and free for the customers.

The second part to what I wanted to say was I had a — I think there's a term that's come up in the industry that a lot of people seem to think is evil, and it's called computer robotic wagering.

I've had conversations with several people and had a rather animated one a couple of weeks ago with a friend of mine who is absolutely as anti-computer robotic wagering as you could find.

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A lot of the tools that we're starting to see here and the stuff that may be coming future starts to push the envelope toward that.

The conversation that I basically had said, "Okay, is it okay to do this but not that, or is it okay to do this but not that?"

My point has always been, you can go back to the beginning of time in horse racing, and there's always sharp players as compared to the rank-and-file people.

I know players that have gone to the extremes of traveling to a racetrack and timing their own morning workouts. There's all sorts of instances where a trainer knows his horse is gonna be good today, and he tells somebody.

There's instances where there are sharp players in the pool. It seems like the computer robotic wagering players are getting a bad stigma, and the only explanation that I can get is they're too good. Now that there's more of these tools

that are coming out there, I wondered if any of you had any insight as to where you — if there is a line where it maybe is too far to go, or if you think that the data should be out there and everybody should be able to use it the way they can.

Mr. David Siegel: I can take a little bit of a stab for those — first, thank you on the first part of that. I think you're referring largely to what Equibase has done.

I touched on it with STATS Central. Every year, we do work hard to continue to improve that to address the issues exactly like Todd brought up where you can put in a horse name or a trainer name and whether he was American Pharoah or Zippy Chippy and find out all you want to find out about him at no cost and dig through that data.

The second part is a little bit trickier. I guess it's just about progress.

All the way back when speed ratings came into vogue, those who made their own or bought the limited number of them had an edge in racing.

Then over time, they get distributed to the public, and speed ratings are an incredibly valuable tool right now, but you're certainly not gonna get a positive ROI just by looking at speed ratings because they're out there in the marketplace. Progress continues.

I think in terms of some of the products we're speaking about, I think those types of things actually help the non-robotic or the non-core player because they're bringing some of those competencies that they — that the robotic and the more sophisticated players have into the hands of the everyday consumer.

Now, one might think, then that will get leapfrogged. Something else will come out. That's just the way progress goes on.

I think some of the stuff that Jim is working on with predictive analysis that SYSYD LLC has done, it actually will start to balance those scales just a little bit better than you might think they're out of balance today.

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Mr. Dick Powell: Full disclosure. I work for Racing and Gaming Services, which is a rebate shop, which has some large computer bettors. A couple of points. There's nothing stopping any bettor in America from making a last-second bet.

You're not on a line.

You can be on your cell phone.

There's a million ways of getting a bet in at the last second.

Number two, we sit as an industry in America and drool about Hong Kong, and yet not understanding Hong Kong Jockey Club and the computer betting teams that are over there and pouring enormous amounts of money into those pools.

I've posed a question before at this symposium. Do we want to be Dow Jones in 1953, or do we want to be NASDAQ in 2015?

Technology obviously has benefits, and yes, occasionally, there's a downside to technology.

We as an industry have to wrestle with that and grapple with it. The way things are now, you're taking everything the panel talked about, and you get a sharp person who's willing to invest the money and take the risk cuz there is risk.

Everyone thinks, you just plug in and get a formula, an algorithm, voilà, you're a winner. Doesn't work that way.

With the people that have done it and have taken the time, energy, investment, everything else, they're betting a lot of money into our pools.

They're a big part of racing and racing in America and a big part of racing all over the world.

We all say we want to be like everybody else, and then there's certain instances where we want to go off in our own direction for whatever reason.

Just a little paid endorsement there for my client.

We're just about out of time. I always like to finish early, give everyone time to catch up for the next panel.

This panel did a great job.

Give a nice round of applause.

Thank you very much.

[Applause]

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