



The “So What” of Big Data in Horse Racing

Proliferation of Big Data and Sports Analytics

3,000+

attend Sloan Conference including most pro teams



MAJOR TV Networks
Sports Portals

FOCUS On Sports Analytics



Real-Time Data

Social Media Analytical Conversation



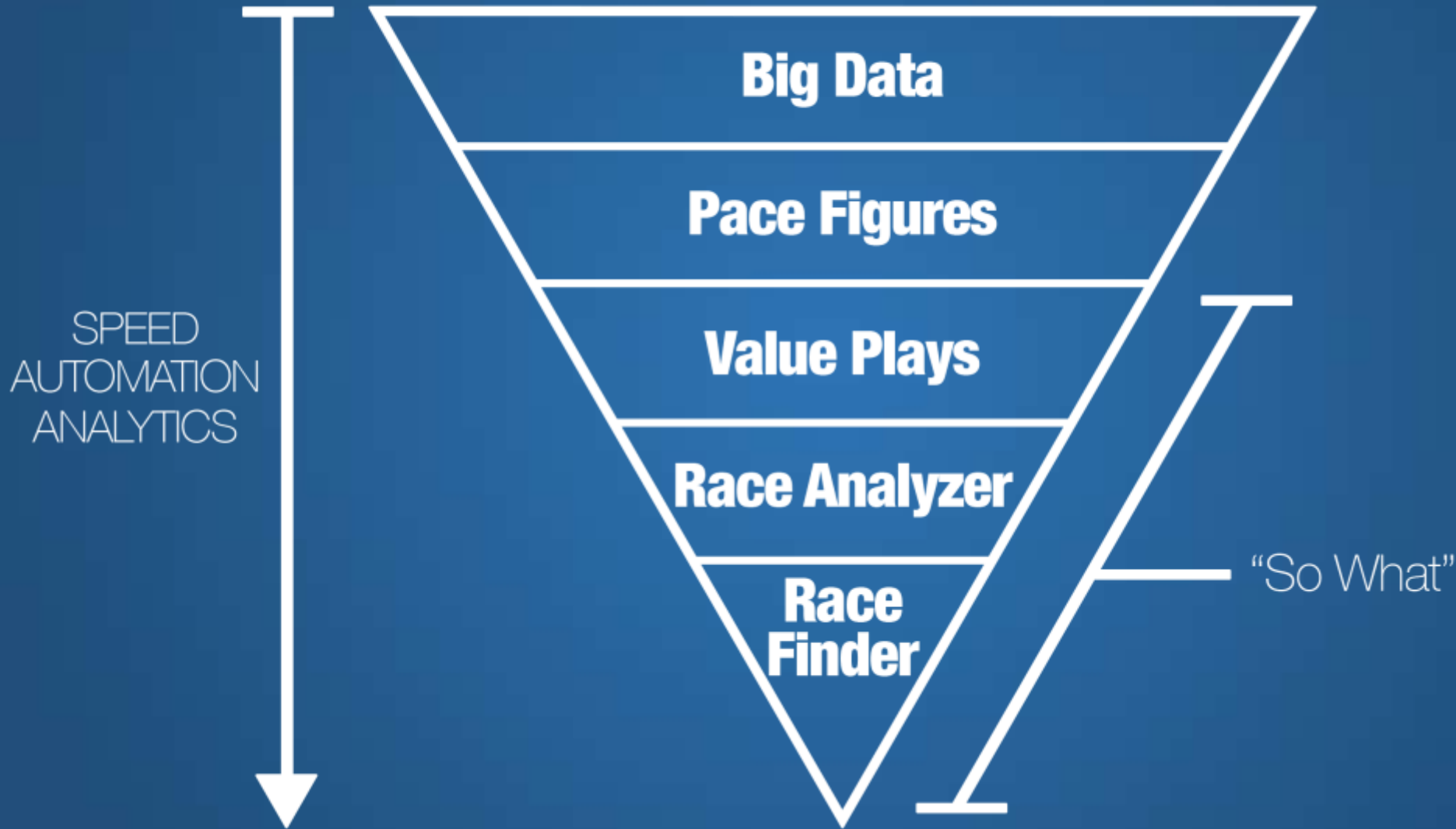
Horse Racing Pain Point: Big Data

- Millions upon millions of records
- Saturday (11/28): 16,000 lines of data
- Needing to know what to look for is almost impossible for novice
- Technology hasn't always existed to parse data in consumable fashion
- New players/fans are intimidated – What do all these numbers mean?
- Want answers with or without the “why” - Just tell me who to play

Equiform/Predictiform History

- Originally conceived by Cary Fotias in 1992
- Disillusioned with one number speed figures
- Cary reviewed 150,000+ races to develop “Pace Figures” and “Form Cycle Patterns”
- PredictionMachine.com team purchased asset from Cary’s estate in summer of 2013
- Equiform took first step, Predictiform added technology
- Consumer friendly web interface allows for easy consumption

Big Data to Digestible Content



Pace Figures

	D	11/01/15	10/03/15	09/05/15	02/01/15	01/04/15	11/30/14	11/07/14	09/27/14	09/03/14			
Stellar Path (Fr) Program Number: 8 Post Position: 8 Weight: 123 Last Race: 43 Days Lasix	F	w69.8	72.5	79.2	75.0	w70.1							
	4f	42.1	78.4	64.8	65.0	55.0							
	P	PLOW											
	6f	50.9	73.3	67.1	65.5	60.8							
	2f												
	T	bel	wox	mth	wox	aqu							
	S	TURF	TURF	TURF	TURF	TURF							
	L	81/2	7	81/2	8	8							
	C	Firm	Firm	Firm	Firm	Good							
	B/M	L	L	L	L	L							
D	10/17/15	09/07/15	06/27/15	05/23/15	04/17/15								
Filimbi Program Number: 9 Post Position: 9 Weight: 123 Last Race: 28 Days Lasix	F	w67.5	71.8	73.1	72.0	w76.6	76.9	70.8	w80.0	w75.1	72.9		
	4f	45.9	52.5	60.4	55.5	66.8	60.4	59.3	67.7	63.6	59.1		
	P	PLOW											
	6f	51.1	59.0	60.8	59.1	65.2	64.5	60.0	70.0	64.4	59.5		
	2f												
	T	bel	bel	kee	tam	sax	kee	sar	sar	bel	kee		
	S	TURF	TURF	TURF	TURF	TURF	TURF	TURF	TURF	TURF	TURF		
	L	8	8	81/2	9	8	8	81/2	8	8	8		
	C	Firm	Good	Yielding	Firm	Firm	Good	Good	Firm	Firm	Firm		
	B/M	L	L	L	L	L	L	L	L	L	L		
D	11/01/15	06/06/15	04/11/15	03/07/15	11/02/14	10/04/14	08/23/14	08/02/14	05/21/14	04/13/14			
Stormy Lucy Program Number: 10 Post Position: 10 Weight: 123 Last Race: 28 Days Lasix	F	77.0	74.2	77.1	69.6	80.8	79.2	72.4	76.9	w76.8	w73.8	73.3	74.3
	4f	68.3	66.8	67.6	61.3	70.2	69.7	62.4	62.2	62.3	57.1	64.4	65.9
	P												
	6f	67.9	59.2	66.4	58.4	71.2	66.2	62.4	63.2	61.3	58.8	64.8	63.3
	2f												
	T	dmr	sax	dmr	sax	dmr	dmr	sax	sax	sax	sax	sax	sax
	S	TURF	TURF	TURF	TURF	TURF	TURF	TURF	TURF	TURF	TURF	TURF	TURF
	L	8	10	9	8	81/2	9	8	9	10	9	8	9
	C	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm
	B/M	L	L	L	L	L	L	L	L	L	L	L	L
D	11/01/15	09/26/15	08/08/15	06/27/15	09/01/14	08/10/14	06/28/14	05/26/14	04/13/14	03/16/14	02/17/14	12/29/13	
Olorda (Ger) Program Number: 11 Post Position: 11 Weight: 120	F	75.2	74.4										
	4f	63.9	63.3										
	P												
	6f	63.6	63.2										
	2f												
	T	kee	bel										
	S	TURF	TURF										
	L												
	C												
	B/M												

Value Plays

- Takes the work out of handicapping
- Proprietary formula created by layering in Pace Figures and key metrics
- The “Output” classifies horses in six categories, such as:
 - Top Contender – Most likely winner
 - Breakout – Most likely to show significant improvement
 - Too Slow – Very unlikely in contention
- Categories then combined with odds to rank entries based on value
- Simplifies best horses and who to play, supports Big Data funnel

Value Plays Example

Race #8:

[Print Race](#)

[Download Race](#)

Value Plays: 10-7-5-4

Distance: 8 Furlongs

Surface: Turf

Conditions: MATRIARCH S., Grade I, Purse \$300,000 FOR FILLIES AND MARES THREE-YEARS-OLD AND UPWARD. By subscription of \$300 each to accompany the nomination. Closed Saturday, November 14, 2015 with 26. Or by supplementary nomination of \$3,000 by closing time of entries. \$1,000 to pass the entry box and \$3,500 to start, with \$300,000 Guaranteed, of which \$180,000 to first, \$60,000 to second, \$36,000 to third, \$18,000 to fourth and \$6,000 to fifth. Three-year-olds 120 lbs. Older 123 lbs. Starters to be named through the entry box by closing time of entries. This race will not be divided. If the number of entries exceed fourteen (14), first preference will be given to Gr I or Gr II winners in 2015. Second preference will be given to horses placed (second or third) in a Gr I or Gr II or Gr III winners in 2015. Total non-claiming earnings in 2015 will be used in determining the order of preference of horses with equal status. A trophy will be presented to the winning owner.

Available Wagers: \$1 EXACTA / \$2 QUINELLA / 50 CENT TRIFECTA / \$2 DOUBLE, \$1 SUPERFECTA (10-CENT MIN.)

Post Time: 3:59 PM PT

Race Analyzer: [Analyze Race](#)

Basic		Advanced		Value Plays		Sort: Value							
P#	Horse	Races	Last Race	Value	Play Type	Pattern	Avg. Final	Avg. 4F	Last Final	Last 4F	Top Final	ML	PP
10	Stormy Lucy	30	28	1	Fringe Contender		71.6	65.0	77.0	68.3	80.8	20	10
7	Gender Agenda	9	28	2	Top Contender		75.4	70.4	76.3	69.5	78.5	15	7
5	Curlin's Fox	7	64	3	Fringe Contender		73.7	75.3	74.7	77.6	82.7	15	5
4	Prize Exhibit	10	50	4	Fringe Contender		74.7	66.4	72.6	68.7	80.3	15	4
12	Queen Of The Sand	14	28	5	Fringe Contender		74.4	61.1	76.3	66.2	79.6	15	12
13	Baruta	15	35	6	Average		74.8	79.5	w76.9	82.9	80.6	20	13
2	Chati's On Top	16	35	7	Average		70.8	68.3	74.1	73.9	77.3	20	2
15	Alexis Tangier	11	57	8	Average		71.5	73.4	w75.0	73.5	78.2	15	15
1	Hard Not To Like (Ont-C)	21	64	9	Average		73.5	62.3	73.5	63.5	82.8	9/2	1
11	Olorda (Ger)	2	50	10	Average		74.8	63.6	75.2	63.9	75.2	8	11
6	Crowley's Law (Gb)	3	36	11	Average		73.9	64.3	w73.8	66.0	79.1	6	6
8	Stellar Path (Fr)	5	43	12	Average	PLOW	73.3	61.0	w69.8	42.1	79.2	8	8
14	She's Not Here	17	57	13	Breakout		70.6	63.4	66.3	52.8	78.2	15	14
3	Recepta	12	29	14	Average		72.5	60.1	65.8	58.1	80.4	8	3
9	Filimbi	10	28	15	Regressor	PLOW	73.7	59.1	w67.5	45.9	80.0	7/2	9

Race Analyzer

- Builds on Value Plays classifications
- Empowers user to re-evaluate the Value Plays for a race with updated odds and scratches
- Makes race evaluation simpler and more accurate closer to post time as odds change and horses are scratched
- Live, real-time odds integration is holy grail
- The better the odds feed, the more accurate the recommendation

Race Analyzer Example

Race Selection

Charles Town 11/11 2

Race Analyzer

Track: Charles Town
Date: 11/11/2015
Race #2:
Value Plays: 5-4-1-7
Distance: 4 1/2 Furlongs
Surface: Dirt
Claim: \$5,000
Conditions: CLAIMING, Purse \$10,500 FOR THREE YEAR OLDS AND UPWARD WHICH HAVE NEVER WON TWO RACES. Three Year Olds, 121 lbs., Older, 123 lbs. Non-winners Of A Race Since October 11 Allowed 2 lbs. Claiming Price \$5,000, if for \$4,500, allowed 2 lbs. (W V A Races Not Considered In Eligibility) (Winners Preferred).
Available Wagers: PICK 3 (RACES 2-3-4) / EXACTA / TRIFECTA / SUPERFACTA / DAILY DOUBLE (2-3)
Post Time: 7:34 PM ET
Race Figures: [View Pace Figures](#)

P#	Horse	Races	Last Race	Value	Play Type	Pattern	Avg. Final	Avg. 4F	Last Final	Last 4F	Top Final	Odds	PP	Scratch
5	Caramel Creamside	3	47	1	Top Contender	NPT	63.1	72.9	61.1	73.9	64.5	29	5	<input type="checkbox"/>
4	Stormin City	25	21	2	Average		62.0	71.3	61.6	74.1	66.6	49	4	<input type="checkbox"/>
1	Furfield Storm	12	20	3	Average		63.0	73.3	w64.1	72.8	67.7	2	1	<input type="checkbox"/>
7	David's Prince	6	19	4	Breakout		58.9	73.2	62.6	71.3	68.6	6	7	<input type="checkbox"/>
2	Copious Reward	13	19	5	Average		60.0	70.5	58.6	68.2	67.1	7	2	<input type="checkbox"/>
10	Escarto	23	39	6	Too Slow		59.4	64.9	57.2	64.7	66.4	15	10	<input type="checkbox"/>
8	Puccinni	5	33	7	Too Slow		56.3	70.2	w63.0	73.4	63.0	10	8	<input type="checkbox"/>
9	Kiss The V I Mass	9	21	8	Too Slow		57.3	66.7	52.0	71.9	62.5	28	9	<input type="checkbox"/>
3	Colonel Avara	16	147	9	Too Slow		61.0	67.6	63.1	71.6	68.1	11	3	<input type="checkbox"/>
6	Unlock The Glory	6	39	10	Too Slow		58.1	73.3	55.4*	64.1	62.6	6 1/5	6	<input type="checkbox"/>
11	Lord Gin				Scratched							20		<input checked="" type="checkbox"/>
12	Louis Gold				Scratched							7/2		<input checked="" type="checkbox"/>
13	Magnetizer				Scratched							10		<input checked="" type="checkbox"/>
14	King Richard				Scratched							9/2		<input checked="" type="checkbox"/>

Value Plays: P# 5, Caramel Creamside - P# 4, Stormin City - P# 1, Furfield Storm - P# 7, David's Prince

[Evaluate Race](#)

Race Finder

- Culmination of Big Data – Looks backward to project forward
- Data engine allows users to find results and upcoming races that match selected criteria
 - Searches are extremely quick — takes a few clicks to setup
 - Search by track, distance, odds, dates, conditions and more
- Win and ITM ROI% for each Value Play classification
- Upcoming races that match criteria are accessible for user

Race Finder Examples

Finally, you can "Save" your search by labeling it in the Save Search section below Upcoming Races, and clicking on "Save Search". Your saved searches are available on the Race Finder Saved Searches page.

AND OR Add rule Add group

Distance >= 8 Furlongs Delete

Form Cycle Pattern? = PLOW ("Turf Pace Low") Delete

Is Maiden Race? = Yes No Delete

Purse >= 250000 Delete

Surface in Dirt Turf All Weather Delete

Find Races

Results - since 4/20/15

Class	Total Entries	Avg. Odds	Wins	Win %	Win ROI	In Money	In Money %	Show ROI
Top Contender	25	9.5	5	20.0	113.2	10	40.0	-14.4
Fringe Contender	15	10.6	2	13.3	-45.3	6	40.0	3.7
Too Slow	44	36.9	0	0.0	-100.0	6	13.6	-71.0
Breakout	25	25.7	2	8.0	-32.4	8	32.0	-26.0
Regressor	20	9.1	5	25.0	77.8	7	35.0	-22.3
Average	135	17.5	14	10.4	-3.7	46	34.1	-14.0
Top Value	24	14.0	4	16.7	115.0	8	33.3	-20.6

Upcoming Races

Track	Race Date	Race Number	View Pace Figures	Analyze Race
Del Mar	11/29/2015	8	Pace Figures	Analyze

Save Search

Search Name:

Share Search:

Save Search

Finally, you can "Save" your search by labeling it in the Save Search section below Upcoming Races, and clicking on "Save Search". Your saved searches are available on the Race Finder Saved Searches page.

AND OR Add rule Add group

Distance < 5 Furlongs Delete

Is Maiden Race? = Yes No Delete

Surface in Dirt Turf All Weather Delete

Form Cycle Pattern? = NPT ("New Pace Top") Delete

Track = Charles Town Delete

Number of "Too Slow" Horses >= 3 Delete

Find Races

Results - since 4/20/15

Class	Total Entries	Avg. Odds	Wins	Win %	Win ROI	In Money	In Money %	Show ROI
Top Contender	51	3.5	17	33.3	32.7	35	68.6	24.1
Fringe Contender	14	7.1	2	14.3	-87.9	5	35.7	-56.4
Too Slow	282	28.6	16	5.7	-48.8	65	23.0	-28.3
Breakout	82	10.3	11	13.4	-52.6	39	47.8	-4.4
Regressor	6	6.5	1	16.7	-1.7	4	66.7	11.7
Average	74	12.8	14	18.9	38.2	35	47.3	10.1
Top Value	51	3.5	17	33.3	32.7	34	66.7	21.6

Upcoming Races

Track	Race Date	Race Number	View Pace Figures	Analyze Race
Charles Town	12/3/2015	5	Pace Figures	Analyze
Charles Town	12/4/2015	6	Pace Figures	Analyze
Charles Town	12/4/2015	8	Pace Figures	Analyze
Charles Town	12/5/2015	8	Pace Figures	Analyze

Save Search

Search Name:

Future Application & Opportunities

- Race Finder Live Odds Feed with Exact Play Value Recommendations
- Individual Horse Search
- Harness Racing expansion
- International racing expansion
- Breeding analysis