

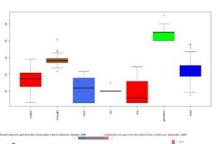
## Presenting Intro

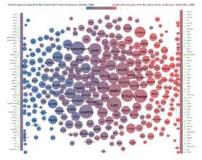
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#### Where Have We Been?

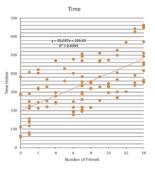
- Obtain
- Scrub
- Explore
- Model
- iNterpret



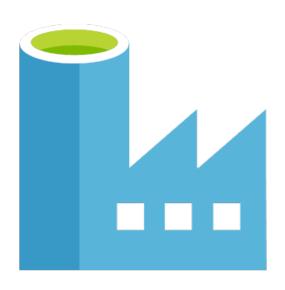








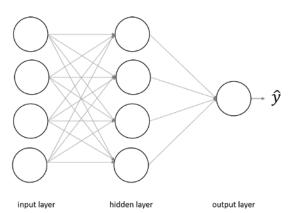
### Our Challenge This Week?





# Communicating the Results in a Meaningful Way









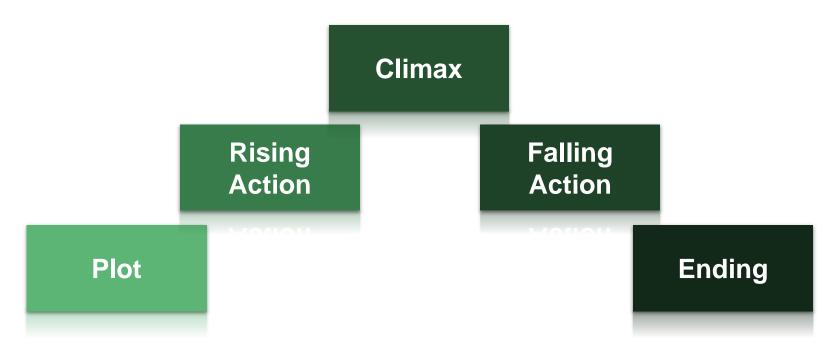
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## How Do We Tell Our Story?

Hypothesis Data Analysis Findings

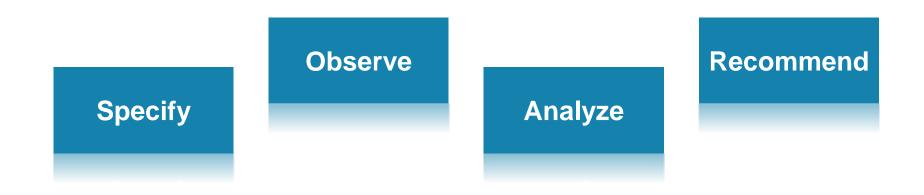
Source: Adapted from Knaflic (2017).

# How Do We Tell Our Story? (cont.)



Source: Adapted from Knaflic (2017).

# How Do We Tell Our Story? (cont.)



### Our Challenge This Week?





### Our Challenge This Week? (cont.)





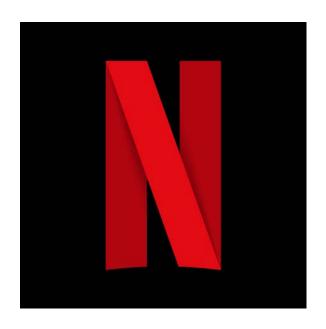






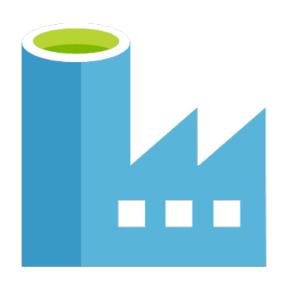


# Our Challenge This Week? (cont.)





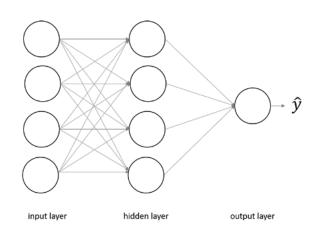
# Our Challenge This Week? (cont.)





# Communicating the Results in a Meaningful Way



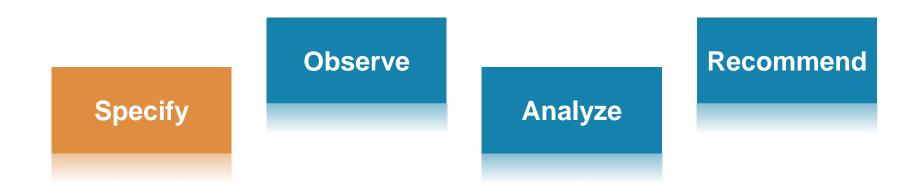






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## How Do We Tell Our Story?



### Our Challenge This Week?





### Our Challenge This Week? (cont.)





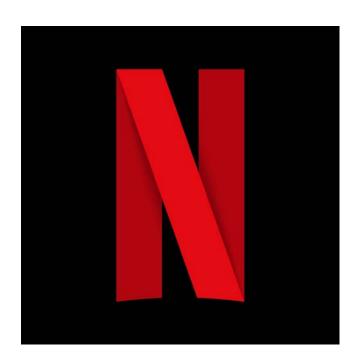








# Our Challenge This Week? (cont.)



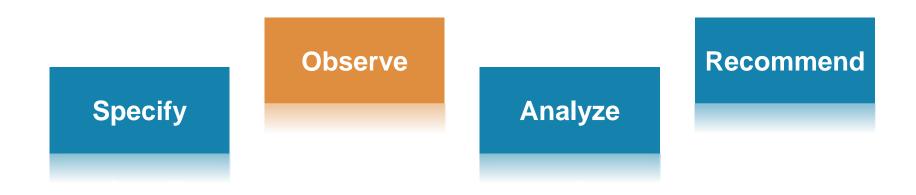




Observe

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## How Do We Tell Our Story?

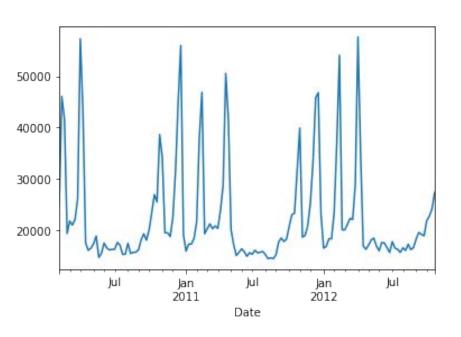


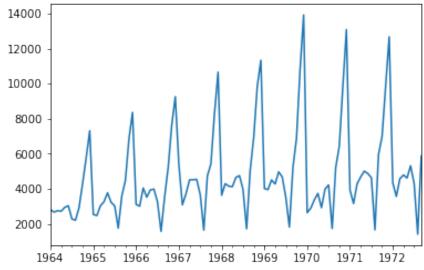
Source: Adapted from Knaflic (2017) and Brown (2005).

# Attendance Data

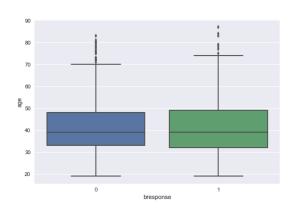
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APR         12         28328         Thursday         Pirates         57         Cloudy         Night         NO         NO         NO           APR         13         31601         Friday         Padres         54         Cloudy         Night         NO         NO         NO         YES           APR         14         46549         Saturday         Padres         57         Cloudy         Night         NO         NO         NO         NO           APR         15         38359         Sunday         Padres         65         Clear         Day         NO         NO         NO         NO         ANO         APO         AP	NO	NO	NO	NO	Day	Clear	67	Pirates	Tuesday	56000	10	APR
APR         13         31601         Friday         Padres         54         Cloudy         Night         NO         NO         YES           APR         14         46549         Saturday         Padres         57         Cloudy         Night         NO         NO         NO         NO           APR         15         38359         Sunday         Padres         65         Clear         Day         NO         NO         NO         NO           APR         23         26376         Monday         Braves         60         Cloudy         Night         NO	NO	NO	NO	NO	Night	Cloudy	58	Pirates	Wednesday	29729	11	APR
APR         14         46549         Saturday         Padres         57         Cloudy         Night         NO         NO         NO           APR         15         38359         Sunday         Padres         65         Clear         Day         NO         NO         NO           APR         23         26376         Monday         Braves         60         Cloudy         Night         NO         NO         NO           APR         24         44014         Tuesday         Braves         63         Cloudy         Night         NO         NO         NO           APR         25         26345         Wednesday         Braves         64         Cloudy         Night         NO         NO         NO           APR         25         26345         Wednesday         Braves         64         Cloudy         Night         NO         NO         NO           APR         25         26345         Wednesday         Braves         64         Cloudy         Night         NO	NO	NO	NO	NO	Night	Cloudy	57	Pirates	Thursday	28328	12	APR
APR         15         38359         Sunday         Padres         65         Clear         Day         NO         NO         NO           APR         23         26376         Monday         Braves         60         Cloudy         Night         NO         NO         NO           APR         24         44014         Tuesday         Braves         63         Cloudy         Night         NO         NO         NO           APR         25         26345         Wednesday         Braves         64         Cloudy         Night         NO         NO         NO           APR         25         26345         Wednesday         Braves         64         Cloudy         Night         NO         NO         NO           APR         27         44807         Friday         Nationals         66         Clear         Night         NO         NO         NO         YES           APR         28         54242         Saturday         Nationals         71         Clear         Night         NO         NO         YES         NO           MAY         7         43713         Monday         Giants         67         Clear         Night	NO	YES	NO	NO	Night	Cloudy	54	Padres	Friday	31601	13	APR
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APR         24         44014         Tuesday         Braves         63         Cloudy         Night         NO         NO         NO           APR         25         26345         Wednesday         Braves         64         Cloudy         Night         NO         NO         NO           APR         27         44807         Friday         Nationals         66         Clear         Night         NO         NO         NO         YES           APR         28         54242         Saturday         Nationals         71         Clear         Night         NO         NO         NO           APR         29         48753         Sunday         Nationals         74         Clear         Day         NO         YES         NO           MAY         7         43713         Monday         Giants         67         Clear         Night         NO         NO         NO           MAY         8         32799         Tuesday         Giants         75         Clear         Night         NO         NO         NO           MAY         9         33993         Wednesday         Giants         71         Clear         Night         NO	NO	NO	NO	NO	Day	Clear	65	Padres	Sunday	38359	15	APR
APR 25 26345 Wednesday Braves 64 Cloudy Night NO NO NO APR 27 44807 Friday Nationals 66 Clear Night NO NO YES APR 28 54242 Saturday Nationals 71 Clear Night NO NO NO APR 29 48753 Sunday Nationals 74 Clear Day NO YES NO MAY 7 43713 Monday Giants 67 Clear Night NO NO NO NO MAY 8 32799 Tuesday Giants 75 Clear Night NO NO NO NO MAY 9 33993 Wednesday Giants 71 Clear Night NO NO NO NO MAY 11 35591 Friday Rockies 65 Clear Night NO NO NO YES MAY 12 33735 Saturday Rockies 65 Clear Night NO NO NO NO MAY 13 49124 Sunday Rockies 70 Clear Day NO NO NO NO	NO	NO	NO	NO	Night	Cloudy	60	Braves	Monday	26376	23	APR
APR 27 44807 Friday Nationals 66 Clear Night NO NO YES APR 28 54242 Saturday Nationals 71 Clear Night NO NO NO NO APR 29 48753 Sunday Nationals 74 Clear Day NO YES NO MAY 7 43713 Monday Giants 67 Clear Night NO NO NO NO MAY 8 32799 Tuesday Giants 75 Clear Night NO NO NO NO MAY 9 33993 Wednesday Giants 71 Clear Night NO NO NO MAY 11 35591 Friday Rockies 65 Clear Night NO NO NO YES MAY 12 33735 Saturday Rockies 65 Clear Night NO NO NO NO MAY 13 49124 Sunday Rockies 70 Clear Day NO NO NO NO	NO	NO	NO	NO	Night	Cloudy	63	Braves	Tuesday	44014	24	APR
APR 28 54242 Saturday Nationals 71 Clear Night NO NO NO APR 29 48753 Sunday Nationals 74 Clear Day NO YES NO MAY 7 43713 Monday Giants 67 Clear Night NO NO NO NO MAY 8 32799 Tuesday Giants 75 Clear Night NO NO NO NO MAY 9 33993 Wednesday Giants 71 Clear Night NO NO NO MAY 11 35591 Friday Rockies 65 Clear Night NO NO NO YES MAY 12 33735 Saturday Rockies 65 Clear Night NO NO NO NO MAY 13 49124 Sunday Rockies 70 Clear Day NO NO NO NO	NO	NO	NO	NO	Night	Cloudy	64	Braves	Wednesday	26345	25	APR
APR 29 48753 Sunday Nationals 74 Clear Day NO YES NO MAY 7 43713 Monday Giants 67 Clear Night NO NO NO NO MAY 8 32799 Tuesday Giants 75 Clear Night NO NO NO NO MAY 9 33993 Wednesday Giants 71 Clear Night NO NO NO MAY 11 35591 Friday Rockies 65 Clear Night NO NO NO YES MAY 12 33735 Saturday Rockies 65 Clear Night NO NO NO NO MAY 13 49124 Sunday Rockies 70 Clear Day NO NO NO NO	NO	YES	NO	NO	Night	Clear	66	Nationals	Friday	44807	27	APR
MAY         7         43713         Monday         Giants         67         Clear         Night         NO         NO         NO           MAY         8         32799         Tuesday         Giants         75         Clear         Night         NO         NO         NO           MAY         9         33993         Wednesday         Giants         71         Clear         Night         NO         NO         NO           MAY         11         35591         Friday         Rockies         65         Clear         Night         NO         NO         NO         YES           MAY         12         33735         Saturday         Rockies         65         Clear         Night         NO         NO         NO           MAY         13         49124         Sunday         Rockies         70         Clear         Day         NO         NO         NO	YES	NO	NO	NO	Night	Clear	71	Nationals	Saturday	54242	28	APR
MAY         8         32799         Tuesday         Giants         75         Clear         Night         NO         NO         NO           MAY         9         33993         Wednesday         Giants         71         Clear         Night         NO         NO         NO           MAY         11         35591         Friday         Rockies         65         Clear         Night         NO         NO         YES           MAY         12         33735         Saturday         Rockies         65         Clear         Night         NO         NO         NO           MAY         13         49124         Sunday         Rockies         70         Clear         Day         NO         NO         NO	NO	NO	YES	NO	Day	Clear	74	Nationals	Sunday	48753	29	APR
MAY         9         33993         Wednesday         Giants         71         Clear         Night         NO         NO         NO           MAY         11         35591         Friday         Rockies         65         Clear         Night         NO         NO         YES           MAY         12         33735         Saturday         Rockies         65         Clear         Night         NO         NO         NO           MAY         13         49124         Sunday         Rockies         70         Clear         Day         NO         NO         NO	NO	NO	NO	NO	Night	Clear	67	Giants	Monday	43713	7	MAY
MAY 11 35591 Friday Rockies 65 Clear Night NO NO YES MAY 12 33735 Saturday Rockies 65 Clear Night NO NO NO NO MAY 13 49124 Sunday Rockies 70 Clear Day NO NO NO	NO	NO	NO	NO	Night	Clear	75	Giants	Tuesday	32799	8	MAY
MAY 12 33735 Saturday Rockies 65 Clear Night NO NO NO NO MAY 13 49124 Sunday Rockies 70 Clear Day NO NO NO	NO	NO	NO	NO	Night	Clear	71	Giants	Wednesday	33993	9	MAY
MAY 13 49124 Sunday Rockies 70 Clear Day NO NO NO	NO	YES	NO	NO	Night	Clear	65	Rockies	Friday	35591	11	MAY
•	NO	NO	NO	NO	Night	Clear	65	Rockies	Saturday	33735	12	MAY
MAY 14 24312 Monday Snakes 67 Clear Night NO NO NO	NO	NO	NO	NO	Day	Clear	70	Rockies	Sunday	49124	13	MAY
MAI 14 24512 Moliday Chakes of Clear Hight NO NO NO	NO	NO	NO	NO	Night	Clear	67	Snakes	Monday	24312	14	MAY
MAY 15 47077 Tuesday Snakes 70 Clear Night NO NO NO	YES	NO	NO	NO	Night	Clear	70	Snakes	Tuesday	47077	15	MAY
MAY 18 40906 Friday Cardinals 64 Clear Night NO NO YES	NO	YES	NO	NO	Night	Clear	64	Cardinals	Friday	40906	18	MAY
MAY 19 39383 Saturday Cardinals 67 Clear Night NO NO NO	NO	NO	NO	NO	Night	Clear	67	Cardinals	Saturday	39383	19	MAY
MAY 20 44005 Sunday Cardinals 77 Clear Night NO NO NO	NO	NO	NO	NO	Night	Clear	77	Cardinals	Sunday	44005	20	MAY
MAY 25 36283 Friday Astros 59 Cloudy Night NO NO YES	NO	YES	NO	NO	Night	Cloudy	59	Astros	Friday	36283	25	MAY

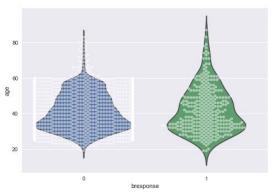
#### Seasonal Data

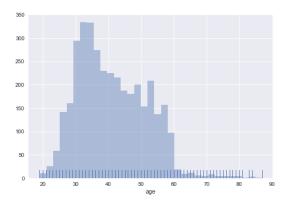




#### Consumer Description







#### **Brand Preference**





Analyze

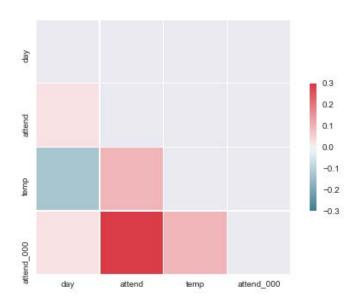
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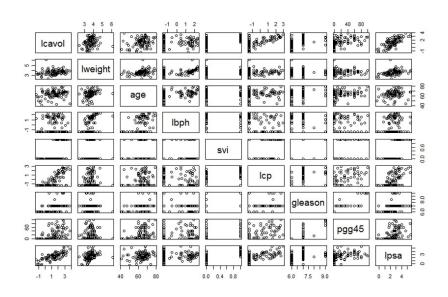
## How Do We Tell Our Story?



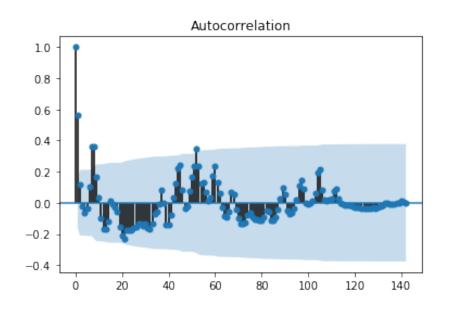
Source: Adapted from Knaflic (2017) and Brown (2005).

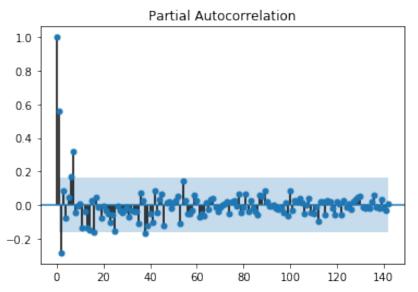
#### Correlation





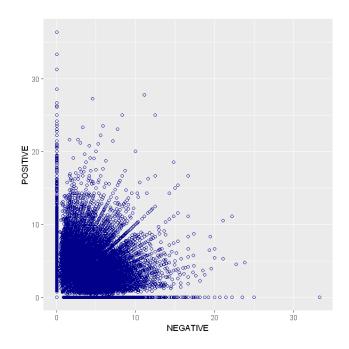
### Correlation (cont.)





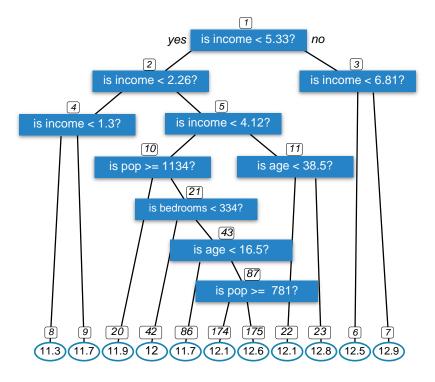
### Sentiment Analysis

actors	often	far	years	idea
black	one	film	acting	kids
early	part	funny	action	line
enjoy	perhaps	goes	actually	look
films	say	however	back	many
full	supposed	long	can	movie
get	thought	love	characters	never
good	three	make	done	new
great	two	picture	enjoyed	night
guys	along	plot	especially	now
humor	american	quite	every	original
just	another	rather	excellent	people
last	best	script	face	plays
later	comedy	still	feel	read
lead	definitely	story	finally	real
like	despite	stupid	first	right
little	direction	war	gives	role
loved	director	way	got	scene
men	end	well	heard	scenes
minutes	entertaining	worth	history	screen



#### Picking Values



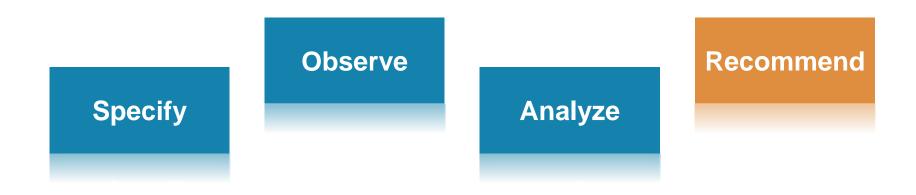




## Recommend

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## How Do We Tell Our Story?

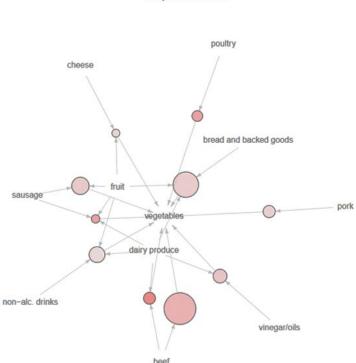


Source: Adapted from Knaflic (2017) and Brown (2005).

#### Recommendation



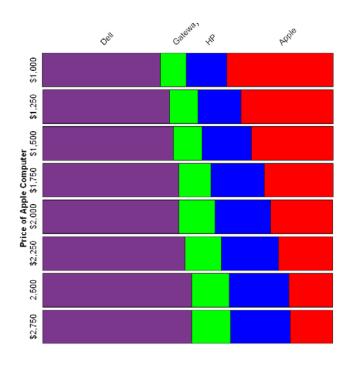




Graph for 10 rules

#### Recommendation (cont.)

- Gaining share is a function of price
- Lowering Apple prices grows market share
- Smaller choice sets make simulations easier
- Preference/choice/sales/ shares



#### Recommendation (cont.)

- Increasing sales in next quarter
- Opportunity to close forecast gap
- Consider data transformations
- Consider methods to account for holiday



