



# User Analytics in the Telecommunication Industry

Analyze opportunities for growth and make a recommendation on whether TellCo is worth buying or selling

Data User Overview Analysis User Engagement analysis User Experience analysis User Satisfaction Analysis

## Data distribution

	Count	Missing	Unique	Dtype	Numeric	Mode	Mean	Min	25%	Median
bearer_id	150,001	0	134,709	object	<input type="checkbox"/>		-	-	-	-
start	150,001	0	111,881	object	<input type="checkbox"/>	2019-04-29 07:08:38	-	-	-	-
start_ms	150,001	0	1,001	float64	<input checked="" type="checkbox"/>	341.0	499.1882	0.0	250.0	499.0
end	150,001	0	100,962	object	<input type="checkbox"/>	2019-04-25 00:01:32	-	-	-	-
end_ms	150,001	0	1,001	float64	<input checked="" type="checkbox"/>	872.0	498.80088	0.0	251.0	500.0
imsi	150,001	0	107,265	float64	<input checked="" type="checkbox"/>	208201402778052.0	208201638751555.25	204047108489451	208201401264956.0	20820154630
msisdn_number	150,001	0	106,856	float64	<input checked="" type="checkbox"/>	33626320676.0	41824143750.903435	33601001722.0	33650939259.0	33663608828
imei	150,001	0	107,270	float64	<input checked="" type="checkbox"/>	35182310355840.0	48423860582772.65	440015202000.0	35446909303780.0	35721509139
last_location_name	150,001	0	45,547	object	<input type="checkbox"/>	D41377B	-	-	-	-
avg_rtt_dl_ms_	150,001	0	128	float64	<input checked="" type="checkbox"/>	54.44807182832249	54.4480718283225	0.0	35.0	54.0
					<input type="checkbox"/>					

## Top 5 handsets per top 3 handset manufacturer

	index	0	1	2	3	4
0	huawei	huawei b528s-23a	huawei e5180	huawei p20 lite huawei nova 3e	huawei p20	huawei y6 2018
1	apple	apple iphone 6s (a1688)	apple iphone 6 (a1586)	apple iphone 7 (a1778)	apple iphone se (a1723)	apple iphone 8 (a1905)
2	samsung	samsung galaxy s8 (sm-g950f)	samsung galaxy a5 sm-a520f	samsung galaxy j5 (sm-j530)	samsung galaxy j3 (sm-j330)	samsung galaxy s7 (sm-g9

top\_5\_phone\_per\_manufacturer\_Data

## Top 10 Data session user

	msisdn_number	session_count
0	33,626,320,676	522
1	33,614,892,860	17
2	33,625,779,332	17
3	33,659,725,664	16
4	33,675,877,202	15
5	33,760,536,639	15
6	33,667,163,239	13
7	33,627,080,969	12
8	33,603,127,838	12
9	33,760,413,819	12

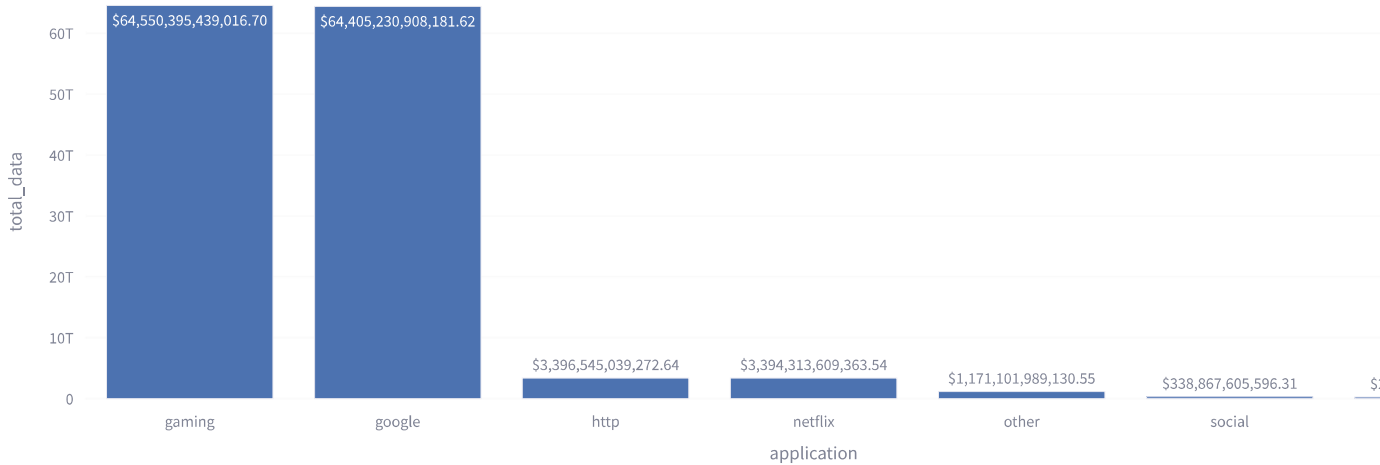
download top 10 session user Data

Application Data distribution

	application	total_data
0	gaming	64,550,395,439,016.7
1	google	64,405,230,908,181.62
2	http	3,396,545,039,272.6387
3	netflix	3,394,313,609,363.5386
4	other	1,171,101,989,130.5457
5	social	338,867,605,596.31
6	youtube	274,239,359,454.2081

Total\_app\_data

Total Application Data:



Applications Correlation plot

	email	gaming	google	http	netflix	other	social	youtube
email	1	-0.0006	-0.0004	0.001	0.001	-0.0013	0.004	-0.0029
gaming	-0.0006	1	-0.001	0.0029	-0.0031	-0.0027	0.0011	-0.003
google	-0.0004	-0.001	1	0.0019	-0.0019	-0.0017	-0.0017	0.0023
http	0.001	0.0029	0.0019	1	-0.0003	0.0087	0.001	0.0012
netflix	0.001	-0.0031	-0.0019	-0.0003	1	-0.009	0.001	0.0029
other	-0.0013	-0.0027	-0.0017	0.0087	-0.009	1	0.0061	0.003
social	0.004	0.0011	-0.0017	0.001	0.001	0.0061	1	0.0005
youtube	-0.0029	-0.003	0.0023	0.0012	0.0029	0.003	0.0005	1

applicatio\_correlation

