

task3_galaxy_cor

Code ▾

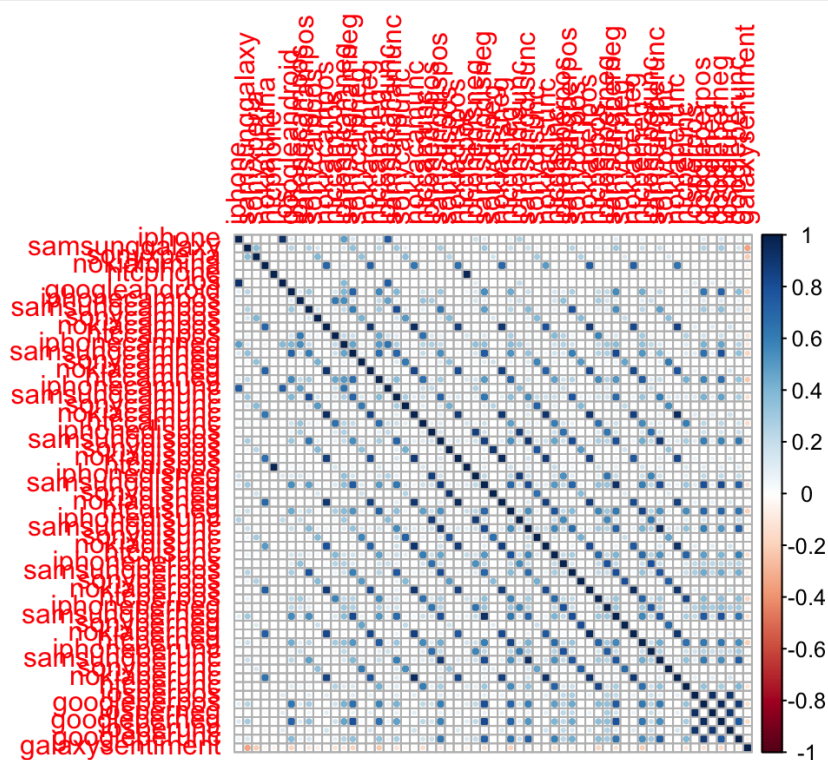
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```
samsung <- read.csv("galaxy_smallmatrix_labeled_9d.csv")
```

Correlation Matrix

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```
# correlation matrix  
corr_matrix <- cor(samsung)  
corr_plot <- corrplot(as.matrix(corr_matrix))
```



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```
corr_plot
```

	iphone	samsunggalaxy	sonyxperia	nokialumina	htcphone
iphone	1.000000000	0.0159758824	-0.012286712	-0.0130113124	-0.0028618099
samsunggalaxy	0.015975882	1.000000000	0.365927086	-0.0061241775	0.0178484527
sonyxperia	-0.012286712	0.3659270858	1.000000000	-0.0063682064	0.0236093137
nokialumina	-0.013011312	-0.0061241775	-0.006368206	1.000000000	0.0006693785
htcphone	-0.002861810	0.0178484527	0.023609314	0.0006693785	1.000000000
ios	0.928171688	-0.0447752032	-0.023916621	-0.0028437199	-0.0050083453
googleandroid	0.099113220	0.2365132133	-0.018315293	-0.0011355541	0.0165054715
iphonecampos	0.076295824	0.0302266793	0.004342369	0.0298490944	0.0069142178
samsungcampos	0.052992160	0.2511875267	0.047772377	0.0093131738	0.0107830524
sonycampos	-0.004962867	0.1431586761	0.395698570	-0.0027457373	0.0102814297
nokiacampos	-0.008197756	-0.0004208775	-0.004243949	0.7004134278	0.0004621265
htccampos	0.020662226	0.0647274234	0.015445636	0.0213055121	0.0231129614
iphonecamneg	0.486838671	0.1265807721	-0.006595570	0.0633581661	0.0141257805
samsungcamneg	0.132278137	0.3431998318	-0.004337150	0.0095239562	0.0200135867
sonycamneg	-0.001986513	0.0318343254	0.345739434	-0.0012347698	0.0049067382
nokiacamneg	-0.008912908	-0.0010016290	-0.004480128	0.7294325660	0.0001884590
htccamneg	0.096622616	0.2233020453	-0.012283129	0.0372938000	0.0367102562
iphonecamunc	0.753152812	-0.0105756133	-0.008327405	0.0162333473	0.0011359968
samsungcamunc	0.068032597	0.3150353606	0.054648136	0.0410932344	0.0155380786
sonycamunc	-0.003312885	0.1001951538	0.375616052	-0.0018820683	0.0096858313
nokiacamunc	-0.008331213	0.0056781558	-0.003983568	0.6341696475	0.0003617240
htccamunc	0.023494448	0.0720148991	0.012459032	0.0361538036	0.0290703038
iphonedispos	0.050588211	-0.0068241879	-0.018810355	0.0283753991	0.0002028401
samsungdispos	0.056394183	0.2803930542	0.037290688	0.0415278643	0.0130572081
sonydispos	-0.003914300	0.0581107226	0.248496900	-0.0014962654	0.0067801661
nokiadispos	-0.007942698	0.0102400922	-0.003783108	0.6502512874	0.0003089029
htcdispos	0.006425287	0.0245791320	0.002804346	0.0105571174	0.9776446710
iphonedisneg	0.172609774	0.0180385513	-0.013498805	0.0237839324	0.0027701572
samsungdisneg	0.103659687	0.3046332430	0.007696009	0.0228909957	0.0201473108
sonydisneg	-0.002741654	0.0067830867	0.163494697	-0.0006470733	0.0030551775
nokiadisneg	-0.008511424	0.0056266443	-0.004051438	0.6922661063	0.0003861785
htcdisneg	0.078832554	0.1896615395	-0.002079164	0.0443578021	0.0376156220
iphonedisunc	0.250368664	-0.0279505858	-0.018136040	0.0026849101	-0.0021117803
samsungdisunc	0.035666858	0.1896978491	0.025438568	0.0468989567	0.0093780721
sonydisunc	-0.004557554	0.0589819631	0.293355488	-0.0013687069	0.0051684206
nokiadisunc	-0.007329545	0.0146600770	-0.003242367	0.4913298135	-0.0000680297
htcdisunc	0.022020409	0.0714041218	0.009337082	0.0211081991	0.0291445633
iphoneperpos	-0.011451806	-0.0029781969	-0.029083547	0.0335940854	0.0001384587
samsungperpos	0.047500473	0.2425264791	0.019924925	0.0174552954	0.0096707944
sonyperpos	-0.006343534	0.0652618116	0.263129425	-0.0019005140	0.0046710087
nokiaperpos	-0.010160149	0.0018261992	-0.004619320	0.7374555536	0.0004517822
htcperpos	0.028089577	0.0879891195	0.003950125	0.0391281410	0.0308198578
iphoneperneg	0.010518187	0.0465117438	-0.028702428	0.0338966995	0.0043108482
samsungperneg	0.106749860	0.3038066396	-0.001954085	0.0173346109	0.0174504265
sonyperneg	-0.003602071	0.0099727656	0.122561372	-0.0009524197	0.0011116451
nokiaperneg	-0.010421262	0.0004595859	-0.004712850	0.7364514499	0.0004596347
htcperneg	0.069886518	0.1786390850	-0.012097255	0.0500551081	0.0338939290
iphoneperunc	-0.017262453	-0.0175850522	-0.028945578	0.0203441781	0.0001981751
samsungperunc	0.043282408	0.1838181677	0.005806506	0.0353135388	0.0105702424
sonyperunc	-0.003120365	0.0322934086	0.144721901	-0.0011523967	0.0047509923
nokiaperunc	-0.009382122	0.0072923230	-0.004265589	0.6484394494	0.0001097110
htcperunc	0.009997149	0.0443416350	-0.005960459	0.0237591934	0.0213908585
iosperpos	-0.019640311	-0.0058791543	-0.011047769	0.0306965276	-0.0029359293
googleperpos	0.109452690	0.2462351542	-0.008498579	0.0064950782	0.0191795588
iosperneg	-0.018673633	-0.0079151306	-0.010359045	0.0326997768	-0.0027668594
googleperneg	0.128753949	0.2912043221	-0.008603282	0.0006319213	0.0207186100
iosperunc	-0.019994215	-0.0154150726	-0.014845500	0.0528654693	-0.0026750279
googleperunc	0.062893979	0.1423566132	-0.007938922	0.0079866214	0.0133005184
galaxysentiment	0.001486419	-0.3452572476	-0.219816736	-0.0524690374	-0.0519091419
	ios	googleandroid	iphonecampos	samsungcampos	sonycampos
iphone	0.9281716877	0.09911321971	0.076295824	0.052992160	-0.00496286739
samsunggalaxy	-0.0447752032	0.23651321325	0.030226679	0.251187527	0.14315867610
sonyxperia	-0.0239166212	-0.01831529323	0.004342369	0.047772377	0.39569856978
nokialumina	-0.0028437199	-0.00113555408	0.029849094	0.009313174	-0.00274573730
htcphone	-0.0050083453	0.01650547153	0.006914218	0.010783052	0.01028142969
ios	1.000000000	-0.02645745841	0.042260679	-0.010719316	-0.00927756466
googleandroid	-0.0264574584	1.00000000000	0.104609347	0.316091592	0.00006317932
iphonecampos	0.0422606790	0.10460934699	1.000000000	0.061825315	0.04283928681
samsungcampos	-0.0107193160	0.31609159193	0.061825315	1.000000000	0.13834099595
sonycampos	-0.0092775647	0.00006317932	0.042839287	0.138340996	1.00000000000
nokiacampos	0.0054129748	0.00327314781	0.030839160	0.014880451	-0.00182983548
htccampos	-0.0123667236	0.14826886493	0.623980191	0.089190057	0.05558198748
iphonecamneg	0.3879441309	0.39278639007	0.541255338	0.206727037	0.01408190503
samsungcamneg	-0.0153334136	0.71180484110	0.117535498	0.609595152	0.03385279269
sonycamneg	-0.0038696843	0.01353562455	0.020010336	0.054051800	0.41879580177
nokiacamneg	0.0046379734	-0.00183904962	0.026876038	0.014387895	-0.00193166713
htccamneg	-0.0230771581	0.56376087203	0.206429162	0.296198758	0.01415597724
iphonecamunc	0.7334719301	0.04302227416	0.472868820	0.028294931	0.01410885307
samsungcamunc	-0.0123507849	0.39324183490	0.075985545	0.814604639	0.14941578052
sonycamunc	-0.0063099185	-0.00645818190	0.026713461	0.090161420	0.50410638559

nokiacamunc	0.0063307321	0.00031293908	0.021294245	0.028358737	-0.00171756855
htccamunc	-0.0157678610	0.16644698470	0.321226556	0.102951218	0.05015380722
iphonedispos	0.0145420520	0.06721824906	0.272020461	0.038917295	0.01727240854
samsungdispos	-0.0098778268	0.31687580923	0.059768924	0.642717877	0.10167230390
sonydispos	0.0044375283	-0.00151981223	0.015963755	0.052294667	0.38943169484
nokiadispos	0.0030534968	-0.00418795084	0.026336481	0.038418859	-0.00163113778
htcdispos	-0.0057322511	0.05761226170	0.067175123	0.032484523	0.01468756161
iphonedisneg	0.1141228828	0.12216127846	0.148001721	0.065558511	0.00732317219
samsungdisneg	-0.0117585059	0.54273780319	0.089879970	0.488473853	0.06048954029
sonydisneg	0.0080601196	0.00020926082	0.002888922	0.011250718	0.13506274673
nokiadisneg	0.0034198230	-0.00448499565	0.026326186	0.028490596	-0.00174683183
htcdisneg	-0.0197194142	0.44866812460	0.109666214	0.239485974	0.03889048697
iphonedisunc	0.2193721484	0.01789793831	0.187795121	0.012245921	0.00712782646
samsungdisunc	-0.0059543371	0.18906880944	0.035559365	0.389347062	0.08777735645
sonydisunc	0.0007068245	-0.00469661922	0.018572316	0.064983719	0.38582384071
nokiadisunc	0.0061020201	-0.00358934264	0.009618139	0.046869519	-0.00139798976
htcdisunc	-0.0126667514	0.14717794897	0.155843934	0.086244790	0.05358162726
iphoneperpos	-0.0217265949	0.10703246927	0.348601360	0.056420038	0.00799717932
samsungperpos	-0.0021359350	0.27056867335	0.044969832	0.794039192	0.04376105499
sonyperpos	-0.0039910529	0.00093898633	0.012722445	0.043407123	0.37906334751
nokiaperpos	0.0022453742	-0.00231585525	0.021195419	0.021609551	-0.00199168141
htcperpos	-0.0181567339	0.20966139871	0.286933372	0.114619592	0.01872501061
iphoneperneg	-0.0123985970	0.21367399559	0.150869485	0.113258841	0.00705961137
samsungperneg	-0.0072180940	0.55839778227	0.092098343	0.547344221	0.03511480120
sonyperneg	-0.0029145443	0.00565071770	0.007042108	0.019390524	0.18722697920
nokiaperneg	0.0023060574	-0.00324268666	0.018003571	0.018721110	-0.00203200846
htcperneg	-0.0216174139	0.43383761471	0.109208496	0.231575898	0.00946404653
iphoneperunc	-0.0152880123	0.05723249861	0.186508454	0.031457128	0.00552619408
samsungperunc	-0.0047350369	0.22210772796	0.039569012	0.486675517	0.04517427634
sonyperunc	-0.0046197382	-0.00395436618	0.017350460	0.049085877	0.35070860501
nokiaperunc	0.0050178442	-0.00142086333	0.014840600	0.033238831	-0.00183916564
htcperunc	-0.0119276203	0.10979058308	0.066921823	0.060374395	0.01164313740
iosperpos	0.1182938089	-0.01675980837	-0.003970216	0.102605291	-0.00301605503
googleperpos	-0.0164565338	0.63893900173	0.117983631	0.298652253	0.00698053603
iosperneg	0.1123442708	-0.01588034433	-0.007041816	0.075795130	-0.00276424901
googleperneg	-0.0180889501	0.71692059383	0.124442332	0.357807640	0.00881975358
iosperunc	0.1170506428	-0.01643416324	-0.001015092	0.044952554	-0.00640083552
googleperunc	-0.0102672660	0.37220105900	0.073053737	0.159368133	-0.00342297245
galaxysentiment	-0.0115277254	-0.18673325279	-0.031921433	-0.112302827	-0.07633659579
nokiacampos	0.0081977557	0.020662226	0.486838671	0.132278137	-0.0019865130
samsunggalaxy	-0.0004208775	0.064727423	0.126580772	0.343199832	0.0318343254
sonyxpria	-0.0042439494	0.015445636	-0.006595570	-0.004337150	0.3457394341
nokialumina	0.7004134278	0.021305512	0.063358166	0.009523956	-0.0012347698
htcphone	0.0004621265	0.023112961	0.014125781	0.020013587	0.0049067382
ios	0.0054129748	-0.012366724	0.387944131	-0.015333414	-0.0038696843
googleandroid	0.0032731478	0.148268865	0.392786390	0.711804841	0.0135356245
iphoncampos	0.0308391601	0.623980191	0.541255338	0.117535498	0.0200103357
samsungcampos	0.0148804509	0.089190057	0.206727037	0.609595152	0.0540518003
sonycampos	-0.0018298355	0.055581987	0.014081905	0.033852793	0.4187958018
nokiacampos	1.0000000000	0.017769641	0.053465026	0.016032380	-0.0008228848
htccampos	0.0177696412	1.000000000	0.206814560	0.171152386	0.0162038977
iphoncamneg	0.0534650264	0.206814560	1.000000000	0.469362814	0.0657106556
samsungcamneg	0.0160323804	0.171152386	0.469362814	1.000000000	0.0723582129
sonycamneg	-0.0008228848	0.016203898	0.065710656	0.072358213	1.0000000000
nokiacamneg	0.9142716886	0.015403161	0.070364043	0.015449928	-0.0008686790
htccamneg	0.0305337980	0.450658200	0.507379531	0.661845110	0.0380460043
iphoncamunc	0.0186384662	0.163268790	0.643533267	0.061626704	0.0250659745
samsungcamunc	0.0582691439	0.112022472	0.264308046	0.706573610	0.1291193050
sonycamunc	-0.0012542625	0.033332634	0.035531900	0.052345896	0.6195594283
nokiacamunc	0.9402206401	0.014933099	0.037333265	0.031118149	-0.0007723979
htccamunc	0.0286030395	0.656374073	0.238058232	0.200606311	0.0367314462
iphonedispos	0.0292639996	0.129513283	0.260710811	0.079504956	0.0248766905
samsungdispos	0.0585080988	0.082473970	0.201183693	0.546369299	0.1100933510
sonydispos	-0.0009971527	0.019414697	0.016343262	0.037847587	0.3401151094
nokiadispos	0.8708580895	0.014635993	0.050100515	0.042378926	-0.0007335296
htcdispos	0.0088510422	0.140080137	0.055073277	0.065611461	0.0151512047
iphonedisneg	0.0222069463	0.040840392	0.345621229	0.152305538	0.0400996898
samsungdisneg	0.0336707906	0.131112951	0.350712637	0.755760618	0.1199637226
sonydisneg	-0.0004312276	0.003804589	0.009606492	0.014872985	0.1773789703
nokiadisneg	0.9057322494	0.016476933	0.053125765	0.031256056	-0.0007855577
htcdisneg	0.0359506128	0.270154321	0.373756444	0.522947200	0.0829721860
iphonedisunc	0.0050196241	0.052940070	0.298311398	0.028940257	0.0271650147
samsungdisunc	0.0649283619	0.051488219	0.117408443	0.331788256	0.1247166934
sonydisunc	-0.0009121443	0.023850936	0.036274014	0.063488466	0.5790540898
nokiadisunc	0.7956704142	0.006693764	0.018915629	0.051889331	-0.0006286820
htcdisunc	0.0163379550	0.386183683	0.160024569	0.163333108	0.0752989448
iphoneperpos	0.0342884696	0.243836267	0.255985078	0.131846303	0.0267678791
samsungperpos	0.0257102240	0.067464470	0.172635000	0.590673242	0.0591238698
sonyperpos	-0.0012665552	0.011545140	0.018082126	0.037976843	0.5038519746
nokiaperpos	0.8874493622	0.012838659	0.039408703	0.023494568	-0.0008956676

htcperpos	0.0264063815	0.585917433	0.205131267	0.242285252	0.0227371438
iphoneperneg	0.0308754722	0.074613471	0.307061170	0.260478673	0.0448634452
samsungperneg	0.0261948975	0.133444763	0.362011315	0.825413224	0.0724121035
sonyperneg	-0.0006347189	0.003728334	0.020597393	0.025453573	0.4654207125
nokiaperneg	0.8356076985	0.013680060	0.038323532	0.020256452	-0.0009138029
htcperneg	0.0337776182	0.290115236	0.348278763	0.511819454	0.0281035690
iphoneperunc	0.0216900158	0.059597922	0.215941489	0.070284556	0.0268405586
samsungperunc	0.0493032042	0.057295111	0.139175768	0.389700324	0.0848666908
sonyperunc	-0.0007679891	0.014065561	0.033760898	0.062291749	0.6167570374
nokiaperunc	0.8582948157	0.010483100	0.026599467	0.036528548	-0.0008270806
htcperunc	0.0172626278	0.253226653	0.114628116	0.122074971	0.0262945924
iosperpos	0.1031108218	-0.006118699	-0.012227859	0.110025325	-0.0012905333
googleperpos	0.0115514955	0.163213490	0.417894618	0.658628613	0.0208928764
iosperneg	0.1035281452	-0.005757988	-0.013643890	0.081247537	-0.0011789952
googleperneg	0.0039264212	0.177305240	0.468872064	0.794271854	0.0251141558
iosperunc	0.1651775918	-0.006076035	-0.010745550	0.046995569	-0.0028784831
googleperunc	0.0125098136	0.100072177	0.241410234	0.342103059	-0.0015393253
galaxysentiment	-0.0317719348	-0.120156303	-0.093805039	-0.182639799	-0.0096129035
nokiacamneg		htccamneg	iphonecamunc	samsungcamunc	sonycamunc
iphone	-0.0089129081	0.096622616	0.753152812	0.06803260	-0.0033128854
samsunggalaxy	-0.0010016290	0.223302045	-0.010575613	0.31503536	0.1001951538
sonyxpertia	-0.0044801282	-0.012283129	-0.008327405	0.05464814	0.3756160524
nokialumina	0.7294325660	0.037293800	0.016233347	0.04109323	-0.0018820683
htcphone	0.0001884590	0.036710256	0.001135997	0.01553808	0.0096858313
ios	0.0046379734	-0.023077158	0.733471930	-0.01235078	-0.0063099185
googleandroid	-0.0018390496	0.563760872	0.043022274	0.39324183	-0.0064581819
iphonecampos	0.0268760382	0.206429162	0.472868820	0.07598554	0.0267134605
samsungcampos	0.0143878948	0.296198758	0.028294931	0.81460464	0.0901614198
sonycampos	-0.0019316671	0.014155977	0.014108853	0.14941578	0.5041063856
nokiacampos	0.9142716886	0.030533798	0.018638466	0.05826914	-0.0012542625
htccampos	0.0154031615	0.450658200	0.163268790	0.11202247	0.0333326335
iphonecamneg	0.0703640435	0.507379531	0.643533267	0.26430805	0.0355318999
samsungcamneg	0.0154499281	0.661845110	0.061626704	0.70657361	0.0523458964
sonycamneg	-0.0008686790	0.038046004	0.025065974	0.12911931	0.6195594283
nokiacamneg	1.0000000000	0.029476878	0.015900417	0.05680963	-0.0013240631
htccamneg	0.0294768778	1.000000000	0.112019364	0.37639034	0.0257262549
iphonecamunc	0.0159004167	0.112019364	1.000000000	0.05527974	0.0457067259
samsungcamunc	0.0568096287	0.376390343	0.055279740	1.00000000	0.2763878776
sonycamunc	-0.0013240631	0.025726255	0.045706726	0.27638788	1.0000000000
nokiacamunc	0.8435272841	0.027367226	0.013593224	0.10593431	-0.0011773091
htccamunc	0.0265322711	0.661600909	0.171512337	0.17645637	0.1031496443
iphonedispos	0.0276996595	0.097655204	0.208010744	0.06662639	0.0233714593
samsungdispos	0.0570696002	0.287359415	0.037677115	0.72651372	0.1168929288
sonydispos	-0.0010526450	0.021090131	0.010692323	0.09964021	0.4286878754
nokiadispos	0.8112272983	0.025747972	0.015626051	0.14150373	-0.0011180650
htcdispos	0.0078565829	0.134664817	0.023134483	0.05230150	0.0169418630
iphonedisneg	0.0224197822	0.150847009	0.252535247	0.09952661	0.0252735063
samsungdisneg	0.0327406849	0.495843175	0.055072479	0.63675418	0.1004827125
sonydisneg	-0.0004552257	0.009032554	0.003639320	0.03103056	0.2454089599
nokiadisneg	0.8693024807	0.031490732	0.016148956	0.10648835	-0.0011973676
htcdisneg	0.0347375365	0.728174027	0.079731791	0.35077187	0.0647763162
iphonedisunc	0.0045242611	0.044440007	0.360715941	0.03971173	0.0310306676
samsungdisunc	0.0634146202	0.168834221	0.032526885	0.55133034	0.1589722461
sonydisunc	-0.0009629057	0.037791326	0.029373239	0.19501211	0.7244443648
nokiadisunc	0.7211239215	0.011918755	0.005717685	0.17091871	-0.0009582535
htcdisunc	0.0146463503	0.474574337	0.085783093	0.18802277	0.1073498560
iphoneperpos	0.0314806417	0.161081445	0.188991734	0.09464301	0.0178586165
samsungperpos	0.0249976092	0.247191782	0.027182576	0.77002761	0.0550258992
sonyperpos	-0.0013370399	0.012444880	0.008284567	0.08947057	0.3865275071
nokiaperpos	0.8228796729	0.022950647	0.011469184	0.08269580	-0.0013652000
htcperpos	0.0238762940	0.550520059	0.091857322	0.17828345	0.0266339486
iphoneperneg	0.0327655024	0.247144175	0.111406373	0.16640430	0.0159134207
samsungperneg	0.0254232144	0.510198709	0.055077108	0.68707277	0.0522990421
sonyperneg	-0.0006700415	0.008815092	0.004863074	0.04613737	0.2128897766
nokiaperneg	0.8322049716	0.025549432	0.009968588	0.07252801	-0.0013928422
htcperneg	0.0318817289	0.756238655	0.070405135	0.32810967	0.0194387547
iphoneperunc	0.0189450995	0.100213759	0.173075423	0.07450152	0.0251337436
samsungperunc	0.0481234009	0.198978258	0.033407544	0.60162206	0.0782549244
sonyperunc	-0.0008107283	0.030471304	0.023247994	0.13836230	0.5465862762
nokiaperunc	0.7889261781	0.019536278	0.009045451	0.12366127	-0.0012606579
htcperunc	0.0162355042	0.425499338	0.057106935	0.12321338	0.0280088185
iosperpos	0.0889881753	-0.010969479	-0.004955082	0.12954259	-0.0007133983
googleperpos	0.0027050397	0.579045749	0.076935372	0.41900390	-0.0037606539
iosperneg	0.0902975300	-0.009910567	-0.008741045	0.09776156	-0.0005757804
googleperneg	-0.0004601931	0.653460834	0.074874657	0.47855150	-0.0041336943
iosperunc	0.1436642579	-0.010224976	-0.001368279	0.05786789	-0.0043874590
googleperunc	0.0037635740	0.334138609	0.058156494	0.27047941	-0.0023462799
galaxysentiment	-0.0318403132	-0.222750052	-0.010329492	-0.13602847	-0.0478723363
nokiacamunc		htccamunc	iphonedispos	samsungdispos	sonydispos
iphone	-0.0083312132	0.023494448	0.0505882110	0.056394183	-0.0039143004
samsunggalaxy	0.0056781558	0.072014899	-0.0068241879	0.280393054	0.0581107226

sonyxpria	-0.0039835679	0.012459032	-0.0188103547	0.037290688	0.2484969002
nokialumina	0.6341696475	0.036153804	0.0283753991	0.041527864	-0.0014962654
htcphone	0.0003617240	0.029070304	0.0002028401	0.013057208	0.0067801661
ios	0.0063307321	-0.015767861	0.0145420520	-0.009877827	0.0044375283
googleandroid	0.0003129391	0.166446985	0.0672182491	0.316875809	-0.0015198122
iphoncampos	0.0212942445	0.321226556	0.2720204611	0.059768924	0.0159637550
samsuncampos	0.0283587373	0.102951218	0.0389172948	0.642717877	0.0522946669
sonycampos	-0.0017175686	0.050153807	0.0172724085	0.101672304	0.3894316948
nokiacampos	0.9402206401	0.028603040	0.0292639996	0.058508099	-0.0009971527
htccampos	0.0149330987	0.656374073	0.1295132834	0.082473970	0.0194146971
iphoncamneg	0.0373332652	0.238058232	0.2607108113	0.201183693	0.0163432624
samsuncamneg	0.0311181486	0.200606311	0.0795049564	0.546369299	0.0378475866
sonycamneg	-0.0007723979	0.036731446	0.0248766905	0.110093351	0.3401151094
nokiacamneg	0.8435272841	0.026532271	0.0276996595	0.057069600	-0.0010526450
htccamneg	0.0273672255	0.661600909	0.0976552035	0.287359415	0.0210901306
iphoncamunc	0.0135932243	0.171512337	0.2080107437	0.037677115	0.0106923233
samsuncamunc	0.1059343121	0.176456371	0.0666263906	0.726513724	0.0996402101
sonycamunc	-0.0011773091	0.103149644	0.0233714593	0.116892929	0.4286878754
nokiacamunc	1.0000000000	0.025896286	0.0191911706	0.106074497	-0.0009359739
htccamunc	0.0258962857	1.0000000000	0.0933297026	0.121772842	0.0334978533
iphonedispos	0.0191911706	0.093329703	1.0000000000	0.150154354	0.0221560903
samsungdispos	0.1060744967	0.121772842	0.1501543543	1.0000000000	0.0955839192
sonydispos	-0.0009359739	0.033497853	0.0221560903	0.095583919	1.0000000000
nokiadispos	0.8836452392	0.024538115	0.0345644301	0.141569721	-0.0008888742
htcdispos	0.0077414440	0.143998293	0.0417866925	0.099655389	0.0146802595
iphonedisneg	0.0150658701	0.067282465	0.8687203575	0.166162485	0.0158660097
samsungdisneg	0.0621591287	0.177323745	0.1638447333	0.866088667	0.0751282022
sonydisneg	-0.0004047702	0.009781760	0.0049692653	0.027231341	0.9049535130
nokiadisneg	0.9041127077	0.028994583	0.0339761430	0.106632977	-0.0009519206
htcdisneg	0.0330918882	0.489988487	0.1633025503	0.535677412	0.0537794451
iphonedisunc	0.0034140871	0.058952985	0.8829397616	0.130076004	0.0125436654
samsungdisunc	0.1168141857	0.103153856	0.1612480310	0.910435918	0.0859415862
sonydisunc	-0.0008561810	0.072326128	0.0266302657	0.123617178	0.7733231222
nokiadisunc	0.9121139598	0.011904286	0.0095849876	0.170893789	-0.0007618222
htcdisunc	0.0148370384	0.605571862	0.1717374968	0.460810983	0.0562511116
iphoneperpos	0.0224036834	0.158034630	0.6598213992	0.175827820	0.0094872194
samsungperpos	0.0474894882	0.096468857	0.0926357100	0.816473809	0.0371239009
sonyperpos	-0.0011888475	0.023473868	0.0106629843	0.071009730	0.4973628888
nokiaperpos	0.9027649409	0.024847326	0.0248844725	0.082924259	-0.0010853492
htcperpos	0.0264101724	0.652164693	0.1249603201	0.276248640	0.0181760550
iphoneperneg	0.0217581298	0.109169341	0.6375493932	0.238807046	0.0061659170
samsungperneg	0.0488820103	0.174449277	0.1423401265	0.809389758	0.0373592535
sonyperneg	-0.0005957766	0.009458497	0.0047567776	0.038822264	0.1698345260
nokiaperneg	0.8633791724	0.026946936	0.0190064479	0.072780524	-0.0011073251
htcperneg	0.0344256397	0.559545613	0.1237313812	0.435979515	0.0168009689
iphoneperunc	0.0167172043	0.113378069	0.6652942280	0.208869767	0.0122575802
samsungperunc	0.0890332768	0.106729580	0.1573071850	0.898205400	0.0490246723
sonyperunc	-0.0007208702	0.044407034	0.0256367561	0.101960639	0.3239207897
nokiaperunc	0.9581518990	0.018817718	0.0124100206	0.123794596	-0.0010022371
htcperunc	0.0159507593	0.601226027	0.0916188457	0.284563203	0.0168874444
iosperpos	0.1084127396	-0.007871624	0.0202918289	0.118313120	0.0257158843
googleperpos	0.0058969910	0.223489645	0.1658831441	0.607459314	0.0002494674
iosperneg	0.1088867920	-0.007106829	0.0153425532	0.092176497	0.0251462086
googleperneg	0.0012853540	0.227765877	0.1473005875	0.580912784	0.0018226190
iosperunc	0.1734942045	-0.005189358	0.0248339180	0.057393221	-0.0034880789
googleperunc	0.0068209492	0.162562910	0.1800083584	0.637141530	-0.0018653187
galaxysentiment	-0.0277524157	-0.148868149	0.0091457815	-0.095659580	-0.0346666196
nokiadispos htcdispos iphonedisneg samsungdisneg sonydisneg					
iphone	-0.0079426985	0.0064252875	0.172609774	0.103659687	-0.0027416538
samsunggalaxy	0.0102400922	0.0245791320	0.018038551	0.304633243	0.0067830867
sonyxpria	-0.0037831085	0.0028043461	-0.013498805	0.007696009	0.1634946971
nokialumina	0.6502512874	0.0105571174	0.023783932	0.022890996	-0.0006470733
htcphone	0.0003089029	0.9776446710	0.002770157	0.020147311	0.0030551775
ios	0.0030534968	-0.0057322511	0.114122883	-0.011758506	0.0080601196
googleandroid	-0.0041879508	0.0576122617	0.122161278	0.542737803	0.0002092608
iphoncampos	0.0263364813	0.0671751226	0.148001721	0.089879970	0.0028889218
samsuncampos	0.0384188592	0.0324845227	0.065558511	0.488473853	0.0112507183
sonycampos	-0.0016311378	0.0146875616	0.007323172	0.060489540	0.1350627467
nokiacampos	0.8708580895	0.0088510422	0.022206946	0.033670791	-0.0004312276
htccampos	0.0146359935	0.1400801368	0.040840392	0.131112951	0.0038045889
iphoncamneg	0.0501005147	0.0550732766	0.345621229	0.350712637	0.0096064924
samsuncamneg	0.0423789265	0.0656114607	0.152305538	0.755760618	0.0148729846
sonycamneg	-0.0007335296	0.0151512047	0.040099690	0.119963723	0.1773789703
nokiacamneg	0.8112272983	0.0078565829	0.022419782	0.032740685	-0.0004552257
htccamneg	0.0257479718	0.1346648165	0.150847009	0.495843175	0.0090325537
iphoncamunc	0.0156260511	0.0231344835	0.252535247	0.055072479	0.0036393199
samsungcamunc	0.1415037274	0.0523014989	0.099526606	0.636754182	0.0310305595
sonycamunc	-0.0011180650	0.0169418630	0.025273506	0.100482713	0.2454089599
nokiacamunc	0.8836452392	0.0077414440	0.015065870	0.062159129	-0.0004047702
htccamunc	0.0245381147	0.1439982926	0.067282465	0.177323745	0.0097817604
iphonedispos	0.0345644301	0.0417866925	0.868720357	0.163844733	0.0049692653

samsungdispos	0.1415697210	0.0996553893	0.166162485	0.866088667	0.0272313405
sonydispos	-0.0008888742	0.0146802595	0.015866010	0.075128202	0.9049535130
nokiadispos	1.0000000000	0.0075969626	0.026097563	0.083419681	-0.0003844015
htcdispos	0.0075969626	1.0000000000	0.034490470	0.117029570	0.0041269843
iphonedisneg	0.0260975626	0.0344904699	1.000000000	0.215665731	0.0086797066
samsungdisneg	0.0834196812	0.1170295695	0.215665731	1.000000000	0.0324941258
sonydisneg	-0.0003844015	0.0041269843	0.008679707	0.032494126	1.0000000000
nokiadisneg	0.9642123936	0.0087095722	0.027531740	0.062472312	-0.0004116665
htcdisneg	0.0314364879	0.1798997375	0.221940433	0.697898046	0.0252631290
iphonedisunc	0.0055715471	0.0309311024	0.880107029	0.136803936	0.0048145195
samsungdisunc	0.1555311790	0.1088577706	0.170959680	0.818247846	0.0311096025
sonydisunc	-0.0008130966	0.0190947646	0.030665449	0.123329028	0.6599804741
nokiadisunc	0.8846578244	0.0034879421	0.007275724	0.101096560	-0.0003294568
htcdisunc	0.0140427807	0.2016022034	0.158704927	0.501048877	0.0200944942
iphoneperpos	0.0377035865	0.0538986647	0.531155368	0.216716089	0.0014775734
samsungperpos	0.0637431699	0.0645491006	0.116801822	0.707746945	0.0121260016
sonyperpos	-0.0011290228	0.0081525224	0.008244496	0.064359388	0.3716386733
nokiaperpos	0.8594811452	0.0070527199	0.018691989	0.048141181	-0.0004693689
htcperpos	0.0239256466	0.1706297590	0.100317942	0.346699403	0.0055878482
iphoneperneg	0.0314458957	0.0469248167	0.641028889	0.321181910	0.0027542115
samsungperneg	0.0658140036	0.0999785396	0.195684738	0.939464843	0.0142037560
sonyperneg	-0.0005657962	0.0041439935	0.007243647	0.040929988	0.1075166295
nokiaperneg	0.7603511068	0.0075120141	0.015345518	0.042054510	-0.0004788726
htcperneg	0.0306008837	0.1552886794	0.173327375	0.592968340	0.0071135699
iphoneperunc	0.0183932842	0.0454154450	0.570373895	0.226002429	0.0035695974
samsungperunc	0.1186802557	0.1053296978	0.171119626	0.818185987	0.0194084971
sonyperunc	-0.0006845949	0.0137490830	0.024816669	0.111377724	0.1150247030
nokiaperunc	0.8366996643	0.0053188881	0.009742431	0.072658175	-0.0004334264
htcperunc	0.0144910357	0.1351996062	0.096483023	0.317149341	0.0066833268
iosperpos	0.0795296120	-0.0011432307	0.015601144	0.104462373	0.0302663054
googleperpos	-0.0024386792	0.1183631135	0.218866627	0.808745416	0.0005733788
iosperneg	0.0793938417	-0.0010090250	0.016907430	0.081901288	0.0295252822
googleperneg	-0.0026805855	0.1092615661	0.213962231	0.826596542	0.0018997752
iosperunc	0.1272536659	0.0005828749	0.018268838	0.050685902	-0.0015084508
googleperunc	-0.0015214970	0.1240397587	0.204713023	0.735521750	-0.0008066737
galaxysentiment	-0.0244783494	-0.0606383377	-0.003520125	-0.132665246	-0.0198827750
nokiadisneg	htcdisneg	iphonedisunc	samsungdisunc	sonydisunc	
iphone	-0.0085114241	0.0788325543	0.250368664	0.035666858	-0.0045575542
samsunggalaxy	0.0056266443	0.1896615395	-0.027950586	0.189697849	0.0589819631
sonyxperia	-0.0040514384	-0.0020791636	-0.018136040	0.025438568	0.2933554885
nokialumina	0.6922661063	0.0443578021	0.002684910	0.046898957	-0.0013687069
htcphone	0.0003861785	0.0376156220	-0.002111780	0.009378072	0.0051684206
ios	0.0034198230	-0.0197194142	0.219372148	-0.005954337	0.0007068245
googleandroid	-0.0044849956	0.4486681246	0.017897938	0.189068809	-0.0046966192
iphonecampos	0.0263261858	0.1096662143	0.187795121	0.035559365	0.0185723164
samsungcampos	0.0284905963	0.2394859740	0.012245921	0.389347062	0.0649837193
sonycampos	-0.0017468318	0.0388904870	0.007127826	0.087777356	0.3858238407
nokiacampos	0.9057322494	0.0359506128	0.005019624	0.064928362	-0.0009121443
htccampos	0.0164769330	0.2701543215	0.052940070	0.051488219	0.0238509364
iphonecamneg	0.0531257650	0.3737564440	0.298311398	0.117408443	0.0362740143
samsungcamneg	0.0312560558	0.5229471998	0.028940257	0.331788256	0.0634884660
sonycamneg	-0.0007855577	0.0829721860	0.027165015	0.124716693	0.5790540898
nokiacamneg	0.8693024807	0.0347375365	0.004524261	0.063414620	-0.0009629057
htccamneg	0.0314907315	0.7281740266	0.044440007	0.168834221	0.0377913258
iphonecamunc	0.0161489558	0.0797317910	0.360715941	0.032526885	0.0293732389
samsungcamunc	0.1064883513	0.3507718687	0.039711728	0.551330344	0.1950121112
sonycamunc	-0.0011973676	0.0647763162	0.031030668	0.158972246	0.7244443648
nokiacamunc	0.9041127077	0.0330918882	0.003414087	0.116814186	-0.0008561810
htccamunc	0.0289945827	0.4899884870	0.058952985	0.103153856	0.0723261276
iphonedispos	0.0339761430	0.1633025503	0.882939762	0.161248031	0.0266302657
samsungdispos	0.1066329775	0.5356774116	0.130076004	0.910435918	0.1236171781
sonydispos	-0.0009519206	0.0537794451	0.012543665	0.085941586	0.7733231222
nokiadispos	0.9642123936	0.0314364879	0.005571547	0.155531179	-0.0008130966
htcdispos	0.0087095722	0.1798997375	0.030931102	0.108857771	0.0190947646
iphonedisneg	0.0275317395	0.2219404332	0.880107029	0.170959680	0.0306654489
samsungdisneg	0.0624723116	0.6978980456	0.136803936	0.818247846	0.1233290279
sonydisneg	-0.0004116665	0.0252631290	0.004814519	0.031109602	0.6599804741
nokiadisneg	1.0000000000	0.0384512150	0.005552271	0.117440588	-0.0008707682
htcdisneg	0.0384512150	1.0000000000	0.136580523	0.540249865	0.0872062027
iphonedisunc	0.0055522714	0.1365805231	1.000000000	0.165778351	0.0376366646
samsungdisunc	0.1174405875	0.5402498646	0.165778351	1.000000000	0.1813854738
sonydisunc	-0.0008707682	0.0872062027	0.037636665	0.181385474	1.0000000000
nokiadisunc	0.8660897669	0.0149978620	0.001111975	0.187425879	-0.0006968759
htcdisunc	0.0165319166	0.7861436147	0.170364518	0.569402072	0.1271301402
iphoneperpos	0.0374178150	0.2051403919	0.553950753	0.189341974	0.0142202285
samsungperpos	0.0477284338	0.3718708282	0.079533087	0.676268258	0.0536322440
sonyperpos	-0.0012091027	0.0342804173	0.005003992	0.070918009	0.4291960132
nokiaperpos	0.8791731390	0.0300652657	0.002343197	0.091685198	-0.0009928219
htcperpos	0.0280826340	0.5760155913	0.084441901	0.290835159	0.0293165561
iphoneperneg	0.0335566373	0.3044839313	0.563691874	0.232361375	0.0121188710
samsungperneg	0.0491217937	0.6231598574	0.111738270	0.714643776	0.0572125973

sonyperneg	-0.0006059273	0.0233672927	0.002930222	0.040752718	0.1848570209
nokiaperneg	0.8213344860	0.0325481121	0.001494487	0.080629547	-0.0010129243
htcperneg	0.0365063487	0.8435392166	0.095575003	0.416789977	0.0283886470
iphoneperunc	0.0193505768	0.2251199253	0.623368394	0.254439294	0.0240732544
samsungperunc	0.0895064953	0.5358334913	0.157224860	0.940577107	0.0895545825
sonyperunc	-0.0007331522	0.0701301831	0.022979295	0.128524147	0.4753187875
nokiaperunc	0.8618161685	0.0236416043	0.001487205	0.136235365	-0.0009167952
htcperunc	0.0176411729	0.5507719471	0.092843375	0.344615102	0.0358684435
iosperpos	0.0871677238	0.0002663561	0.024090992	0.078626084	0.0146658890
googleperpos	-0.0026116509	0.7062400990	0.133064557	0.594469308	-0.0027348811
iosperneg	0.0869745511	0.0010830902	0.023695731	0.063342013	0.0143736377
googleperneg	-0.0028707152	0.7004714160	0.106245301	0.512815553	-0.0030061693
iosperunc	0.1393990259	0.0098532417	0.030152191	0.039946924	-0.0031907160
googleperunc	-0.0016294145	0.6451038643	0.172537052	0.738574513	-0.0017062980
galaxysentiment	-0.0269310142	-0.1905757250	0.019354502	-0.055898029	-0.0309999101
nokiadisunc htcdisunc iphoneperpos samsungperpos sonyperpos					
iphone	-0.0073295453	0.022020409	-0.0114518063	0.047500473	-0.0063435345
samsunggalaxy	0.0146600770	0.071404122	-0.0029781969	0.242526479	0.0652618116
sonyxpria	-0.0032423668	0.009337082	-0.0290835468	0.019924925	0.2631294247
nokialumina	-0.4913298135	0.021108199	0.0335940854	0.017455295	-0.0019005140
htcphone	0.0000680297	0.029144563	0.0001384587	0.009670794	0.0046710087
ios	0.0061020201	-0.012666751	-0.0217265949	-0.002135935	-0.0039910529
googleandroid	-0.0035893426	0.147177949	0.1070324693	0.270568673	0.0009389863
iphonercamos	0.0096181394	0.155843934	0.3486013604	0.044969832	0.0127224448
samsungcampos	0.0468695194	0.086244790	0.0564200380	0.794039192	0.0434071228
sonycamos	-0.0013979898	0.053581627	0.0079971793	0.043761055	0.3790633475
nokiarcamos	0.7956704142	0.016337955	0.0342884696	0.025710224	-0.0012665552
htccamos	0.0066937639	0.386183683	0.2438362671	0.067464470	0.0115451401
iphonercamneg	0.0189156292	0.160024569	0.2559850775	0.172635000	0.0180821258
samsungcamneg	0.0518893313	0.163333108	0.1318463034	0.590673242	0.0379768430
sonycamneg	-0.0006286820	0.075298945	0.0267678791	0.059123870	0.5038519746
nokiarcamneg	0.7211239215	0.014646350	0.0314806417	0.024997609	-0.0013370399
htccamneg	0.0119187549	0.474574337	0.1610814447	0.247191782	0.0124448803
iphonercamunc	0.0057176852	0.085783093	0.1889917344	0.027182576	0.0082845669
samsungcamunc	0.1709187126	0.188022768	0.0946430071	0.770027606	0.0894705738
sonycamunc	-0.0009582535	0.107349856	0.0178586165	0.055025899	0.3865275071
nokiarcamunc	0.9121139598	0.014837038	0.0224036834	0.047489488	-0.0011888475
htccamunc	0.0119042862	0.605571862	0.1580346297	0.096468857	0.0234738684
iphonedispos	0.0095849876	0.171737497	0.6598213992	0.092635710	0.0106629843
samsungdispos	0.1708937889	0.460810983	0.1758278205	0.816473809	0.0710097303
sonydispos	-0.0007618222	0.056251112	0.0094872194	0.037123901	0.4973628888
nokiadispos	0.8846578244	0.014042781	0.0377035865	0.063743170	-0.0011290228
htcdispos	0.0034879421	0.201602203	0.0538986647	0.064549101	0.0081525224
iphonedisneg	0.0072757236	0.158704927	0.5311553684	0.116801822	0.0082444957
samsungdisneg	0.1010965595	0.501048877	0.2167160891	0.707746945	0.0643593883
sonydisneg	-0.0003294568	0.020094494	0.0014775734	0.012126002	0.3716386733
nokiadisneg	0.8660897669	0.016531917	0.0374178150	0.047728434	-0.0012091027
htcdisneg	0.0149978620	0.786143615	0.2051403919	0.371870828	0.0342804173
iphonedisunc	0.0011119755	0.170364518	0.5539507533	0.079533087	0.0050039925
samsungdisunc	0.1874258791	0.569402072	0.1893419736	0.676268258	0.0709180095
sonydisunc	-0.0006968759	0.127130140	0.0142202285	0.053632244	0.4291960132
nokiadisunc	1.0000000000	0.006621782	0.0105282074	0.077259683	-0.0009676450
htcdisunc	0.0066217822	1.0000000000	0.2050115627	0.288554961	0.0386061069
iphoneperpos	0.0105282074	0.205011563	1.0000000000	0.141566772	0.0300859020
samsungperpos	0.0772596832	0.288554961	0.1415667716	1.0000000000	0.0665326710
sonyperpos	-0.0009676450	0.038606107	0.0300859020	0.066532671	1.0000000000
nokiaperpos	0.8155971857	0.015092266	0.0289079140	0.036769343	-0.0013785799
htcperpos	0.0129448340	0.686086502	0.2086300910	0.200644278	0.0320503067
iphoneperneg	0.0105733165	0.202481428	0.7938867127	0.189373270	0.0293769682
samsungperneg	0.0799428428	0.405749722	0.2128074351	0.802176556	0.0449504380
sonyperneg	-0.0004849237	0.020091072	0.0186111426	0.024477811	0.8014976195
nokiaperneg	0.7624431501	0.016097941	0.0217514686	0.032115840	-0.0014064931
htcperneg	0.0166239994	0.677341540	0.1836333481	0.323540972	0.0102755695
iphoneperunc	0.0080370774	0.248031792	0.7907883859	0.140873872	0.0188198511
samsungperunc	0.1431371747	0.538900501	0.2000575613	0.777251273	0.0501597829
sonyperunc	-0.0005867418	0.082426524	0.0359771403	0.055110660	0.7362796362
nokiaperunc	0.9239341089	0.010649812	0.0154071336	0.055513408	-0.0012730133
htcperunc	0.0073259556	0.721315436	0.1239551674	0.189237273	0.0123505505
iosperpos	0.1020280212	0.006410506	0.2116814231	0.274254351	0.0058395486
googleperpos	-0.0020901045	0.483106809	0.2417512206	0.444385633	0.0077913188
iosperneg	0.1020034918	0.006730236	0.2260625659	0.214260105	0.0058090240
googleperneg	-0.0022974338	0.406629677	0.2202230733	0.441311898	0.0081553611
iosperunc	0.1626827248	0.019657017	0.2131534593	0.137070683	-0.0044304593
googleperunc	-0.0013040206	0.593592947	0.2390473486	0.427622132	-0.0023692751
galaxysentiment	-0.0232864672	-0.132600148	0.0246190070	-0.077430604	-0.0233561418
nokiaperpos htcperpos iphoneperneg samsungperneg sonyperneg					
iphone	-0.0101601493	0.0280895774	0.010518187	0.106749860	-0.00360207113
samsunggalaxy	0.0018261992	0.0879891195	0.046511744	0.303806640	0.00997276561
sonyxpria	-0.0046193197	0.0039501249	-0.028702428	-0.001954085	0.12256137201
nokialumina	0.7374555536	0.0391281410	0.033896699	0.017334611	-0.00095241971
htcphone	0.0004517822	0.0308198578	0.004310848	0.017450427	0.00111164509

ios	0.0022453742	-0.0181567339	-0.012398597	-0.007218094	-0.00291454430
googleandroid	-0.0023158553	0.2096613987	0.213673996	0.558397782	0.00565071770
iphoncampos	0.0211954185	0.2869333720	0.150869485	0.092098343	0.00704210795
samsungcampos	0.0216095512	0.1146195922	0.113258841	0.547344221	0.01939052378
sonycampos	-0.0019916814	0.0187250106	0.007059611	0.035114801	0.18722697920
nokiacampos	0.8874493622	0.0264063815	0.030875472	0.026194897	-0.00063471890
htccampos	0.0128386590	0.5859174326	0.074613471	0.133444763	0.00372833406
iphoncamneg	0.0394087035	0.2051312674	0.307061170	0.362011315	0.02059739273
samsungcamneg	0.0234945681	0.2422852520	0.260478673	0.825413224	0.02545357317
sonycamneg	-0.0008956676	0.0227371438	0.044863445	0.072412103	0.46542071250
nokiacamneg	0.8228796729	0.0238762940	0.032765502	0.025423214	-0.00067004146
htccamneg	0.0229506466	0.5505200588	0.247144175	0.510198709	0.00881509236
iphoncamunc	0.0114691841	0.0918573224	0.111406373	0.055077108	0.00486307423
samsungcamunc	0.0826958050	0.1782834501	0.166404297	0.687072767	0.04613736896
sonycamunc	-0.0013652000	0.0266339486	0.015913421	0.052299042	0.21288977663
nokiacamunc	0.9027649409	0.0264101724	0.021758130	0.048882010	-0.00059577664
htccamunc	0.0248473261	0.6521646928	0.109169341	0.174449277	0.00945849702
iphonedispos	0.0248844725	0.1249603201	0.637549393	0.142340126	0.00475677756
samsungdispos	0.0829242591	0.2762486402	0.238807046	0.809389758	0.03882226391
sonydispos	-0.0010853492	0.0181760550	0.006165917	0.037359253	0.16983452595
nokiadispos	0.8594811452	0.0239256466	0.031445896	0.065814004	-0.00056579621
htcdispos	0.0070527199	0.1706297590	0.046924817	0.099978540	0.00414399348
iphonedisneg	0.0186919893	0.1003179419	0.641028889	0.195684738	0.00724364722
samsungdisneg	0.00481411813	0.3466994026	0.321181910	0.939464843	0.04092998838
sonydisneg	-0.0004693689	0.0055878482	0.002754212	0.014203756	0.10751662949
nokiadisneg	0.8791731390	0.0280826340	0.033556637	0.049121794	-0.00060592725
htcdisneg	0.0300652657	0.5760155913	0.304483931	0.623159857	0.02336729270
iphonedisunc	0.0023431972	0.0844419011	0.563691874	0.111738270	0.00293022250
samsungdisunc	0.0916851983	0.2908351585	0.232361375	0.714643776	0.04075271829
sonydisunc	-0.0009928219	0.0293165561	0.012118871	0.057212597	0.18485702088
nokiadisunc	0.8155971857	0.0129448340	0.010573317	0.079942843	-0.00048492366
htcdisunc	0.0150922661	0.6860865020	0.202481428	0.405749722	0.02009107240
iphoneperpos	0.0289079140	0.2086300910	0.793886713	0.212807435	0.01861114258
samsungperpos	0.0367693433	0.2006442778	0.189373270	0.802176556	0.02447781128
sonyperpos	-0.0013785799	0.0320503067	0.029376968	0.044950438	0.80149761948
nokiaperpos	1.0000000000	0.0346427690	0.023987999	0.037649537	-0.00069085874
htcperpos	0.0346427690	1.0000000000	0.161017008	0.317036864	0.00595082954
iphoneperneg	0.0239879988	0.1610170077	1.0000000000	0.317642064	0.04805314472
samsungperneg	0.0376495370	0.3170368639	0.317642064	1.0000000000	0.03156094361
sonyperneg	-0.0006908587	0.0059508295	0.048053145	0.031560944	1.00000000000
nokiaperneg	0.9570141558	0.0370281513	0.021225968	0.032797169	-0.00070484707
htcperneg	0.0445193996	0.7154536958	0.293941617	0.561372641	0.00800087978
iphoneperunc	0.0144588959	0.1424400007	0.758909217	0.199251539	0.01567830206
samsungperunc	0.0697453289	0.2992458347	0.247797554	0.776935211	0.03052330605
sonyperunc	-0.0008359165	0.0237154378	0.043757151	0.062243315	0.68209822195
nokiaperunc	0.9173329873	0.0205603676	0.015426385	0.057191652	-0.00063795528
htcperunc	0.0163745389	0.8498301985	0.140734534	0.271315627	0.00629452584
iosperpos	0.0849337440	-0.0028105736	0.248501573	0.202854749	0.00002880773
googleperpos	0.0020368901	0.3804555947	0.346662696	0.758401516	0.01053025207
iosperneg	0.0845154235	-0.0027745009	0.283958130	0.161523043	0.00008837727
googleperneg	-0.0008395263	0.3586266425	0.350122081	0.796356352	0.01213078292
iosperunc	0.1359298701	-0.0001956438	0.256811190	0.103116313	-0.00222027136
googleperunc	0.0031320281	0.3684965570	0.297424663	0.641221708	-0.00118733370
galaxysentiment	-0.0358926611	-0.1754470290	-0.008834592	-0.133426703	-0.02341915493
iphone	-0.0104212624	0.0698865178	-0.0172624533	0.043282408	-0.0031203655
samsunggalaxy	0.0004595859	0.1786390850	-0.0175850522	0.183818168	0.0322934086
sonyxperia	-0.0047128505	-0.0120972550	-0.0289455779	0.005806506	0.1447219008
nokialumina	0.7364514499	0.0500551081	0.0203441781	0.035313539	-0.0011523967
htcphone	0.0004596347	0.0338939290	0.0001981751	0.010570242	0.0047509923
ios	0.0023060574	-0.0216174139	-0.0152880123	-0.004735037	-0.0046197382
googleandroid	-0.0032426867	0.4338376147	0.0572324986	0.222107728	-0.0039543662
iphoncampos	0.0180035707	0.1092084958	0.1865084536	0.039569012	0.0173504603
samsungcampos	0.0187211095	0.2315758976	0.0314571284	0.486675117	0.0490858768
sonycampos	-0.0020320085	0.0094640465	0.0055261941	0.045174276	0.3507086050
nokiacampos	0.8356076985	0.0337776182	0.0216900158	0.049303204	-0.0007679891
htccampos	0.0136800603	0.2901152358	0.0595979217	0.057295111	0.0140655611
iphoncamneg	0.0383235319	0.3482787631	0.2159414885	0.139175768	0.0337608982
samsungcamneg	0.0202564523	0.5118194539	0.0702845560	0.389700324	0.0622917487
sonycamneg	-0.0009138029	0.0281035690	0.0268405586	0.084866691	0.6167570374
nokiacamneg	0.8322049716	0.0318817289	0.0189450995	0.048123401	-0.0008107283
htccamneg	0.0255494324	0.7562386546	0.1002137586	0.198978258	0.03047113045
iphoncamunc	0.0099685878	0.0704051352	0.1730754231	0.033407544	0.0232479942
samsungcamunc	0.0725280056	0.3281096739	0.0745015192	0.601622057	0.1383622956
sonycamunc	-0.0013928422	0.0194387547	0.0251337436	0.078254924	0.5465862762
nokiacamunc	0.8633791724	0.0344256397	0.0167172043	0.089033277	-0.0007208702
htccamunc	0.0269469360	0.5595456125	0.1133780686	0.106729580	0.0444070343
iphonedispos	0.0190064479	0.1237313812	0.6652942280	0.157307185	0.0256367561
samsungdispos	0.0727805241	0.4359795146	0.2088697668	0.898205400	0.1019606388
sonydispos	-0.0011073251	0.0168009689	0.0122575802	0.049024672	0.3239207897
nokiadispos	0.7603511068	0.0306008837	0.0183932842	0.118680256	-0.0006845949

htcdispos	0.0075120141	0.1552886794	0.0454154450	0.105329698	0.0137490830
iphonedisneg	0.0153455181	0.1733273751	0.5703738955	0.171119626	0.0248166695
samsungdisneg	0.0420545099	0.5929683401	0.2260024286	0.818185987	0.1113777243
sonydisneg	-0.0004788726	0.0071135699	0.0035695974	0.019408497	0.1150247030
nokiadisneg	0.8213344860	0.0365063487	0.0193505768	0.089506495	-0.0007331522
htcdisneg	0.0325481121	0.8435392166	0.2251199253	0.535833491	0.0701301831
iphonedisunc	0.0014944871	0.0955750031	0.6233683939	0.157224860	0.0229792946
samsungdisunc	0.0806295468	0.4167899772	0.2544392944	0.940577107	0.1285241471
sonydisunc	-0.0010129243	0.0283886470	0.0240732544	0.089554583	0.4753187875
nokiadisunc	0.7624431501	0.0166239994	0.0080370774	0.143137175	-0.0005867418
htcdisunc	0.0160979409	0.6773415399	0.2480317923	0.538900501	0.0824265235
iphoneperpos	0.0217514686	0.1836333481	0.7907883859	0.200057561	0.0359771403
samsungperpos	0.0321158398	0.3235409717	0.1408738724	0.777251273	0.0551106601
sonyperpos	-0.0014064931	0.0102755695	0.0188198511	0.050159783	0.7362796362
nokiaperpos	0.9570141558	0.0445193996	0.0144588959	0.069745329	-0.0008359165
htcperpos	0.0370281513	0.7154536958	0.1424400007	0.299245835	0.0237154378
iphoneperneg	0.0212259676	0.2939416172	0.7589092167	0.247797554	0.0437571514
samsungperneg	0.0327971687	0.5613726406	0.1992515387	0.776935211	0.0622433148
sonyperneg	-0.0007048471	0.0080008798	0.0156783021	0.030523306	0.6820982219
nokiaperneg	1.0000000000	0.0489448143	0.0127108456	0.061276337	-0.0008528419
htcperneg	0.0489448143	1.0000000000	0.1856662366	0.436953575	0.0223995862
iphoneperunc	0.0127108456	0.1856662366	1.0000000000	0.257579312	0.0492418692
samsungperunc	0.0612763371	0.4369535746	0.2575793120	1.0000000000	0.0849629743
sonyperunc	-0.0008528419	0.0223995862	0.0492418692	0.084962974	1.0000000000
nokiaperunc	0.9052213220	0.0268139175	0.0126468721	0.103870121	-0.0007719050
htcperunc	0.0177348957	0.6598137354	0.1720801124	0.346223328	0.0297101928
iosperpos	0.0795386222	-0.0036321137	0.1676108874	0.102918715	-0.0027396882
googleperpos	0.0005009751	0.6291204572	0.2440512068	0.617054315	-0.0023026608
iosperneg	0.0798052457	-0.0025639936	0.1804198052	0.083311770	-0.0025959242
googleperneg	-0.0016219132	0.6391886849	0.1973448149	0.542046611	-0.0025310747
iosperunc	0.1279884203	0.0003219026	0.1828074372	0.053963150	-0.0026864557
googleperunc	0.0016260796	0.5401134706	0.2986927143	0.740607313	-0.0014366349
galaxysentiment	-0.0395334754	-0.2072315819	0.0326836891	-0.054218889	-0.0133558416
	nokiaperunc	htcperunc	iosperpos	googleperpos	iosperneg
iphone	-0.0093821218	0.0099971494	-0.01964031129	0.1094526897	-0.01867363291
samsunggalaxy	0.0072923230	0.0443416350	-0.00587915432	0.2462351542	-0.00791513059
sonyxperia	-0.0042655889	-0.0059604585	-0.01104776948	-0.0084985788	-0.01035904545
nokialumina	0.6484394494	0.0237591934	0.03069652764	0.0064950782	0.03269977678
htcphone	0.0001097110	0.0213908585	-0.00293592926	0.0191795588	-0.00276685944
ios	0.0050178442	-0.0119276203	0.11829380892	-0.0164565338	0.11234427076
googleandroid	-0.0014208633	0.1097905831	-0.01675980837	0.6389390017	-0.01588034433
iphoncampos	0.0148406002	0.0669218227	-0.00397021576	0.1179836313	-0.00704181593
samsungcampos	0.0332388315	0.0603743949	0.10260529143	0.2986522534	0.07579513014
sonycampos	-0.0018391656	0.0116431374	-0.00301605503	0.0069805360	-0.00276424901
nokiacampos	0.8582948157	0.0172626278	0.10311082176	0.0115514955	0.10352814517
htccampos	0.0104831002	0.2532266531	-0.00611869893	0.1632134901	-0.00575798755
iphoncamneg	0.0265994674	0.1146281157	-0.01222785910	0.4178946180	-0.01364389040
samsungcamneg	0.0365285481	0.1220749713	0.11002532522	0.6586286127	0.08124753736
sonycamneg	-0.0008270806	0.0262945924	-0.00129053333	0.0208928764	-0.00117899517
nokiacamneg	0.7889261781	0.0162355042	0.08898817529	0.0027050397	0.09029752999
htccamneg	0.0195362779	0.4254993380	-0.01096947938	0.5790457486	-0.00991056725
iphoncamunc	0.0090454513	0.0571069346	-0.00495508243	0.0769353719	-0.00874104453
samsungcamunc	0.1236612748	0.1232133772	0.12954259444	0.4190039004	0.09776155593
sonycamunc	-0.0012606579	0.0280088185	-0.00071339834	-0.0037606539	-0.00057578035
nokiacamunc	0.9581518990	0.0159507593	0.10841273962	0.0058969910	0.10888679204
htccamunc	0.0188177181	0.6012260266	-0.00787162416	0.2234896449	-0.00710682945
iphonedispos	0.0124100206	0.0916188457	0.02029182892	0.1658831441	0.01534255319
samsungdispos	0.1237945962	0.2845632030	0.11831311975	0.6074593137	0.09217649712
sonydispos	-0.0010022371	0.0168874444	0.02571588432	0.0002494674	0.02514620855
nokiadispos	0.8366996643	0.0144910357	0.07952961199	-0.0024386792	0.07939384169
htcdispos	0.0053188881	0.1351996062	-0.00114323068	0.1183631135	-0.00100902501
iphonedisneg	0.0097424307	0.0964830230	0.01560114383	0.2188666272	0.01690743030
samsungdisneg	0.0726581754	0.3171493413	0.10446237320	0.8087454159	0.08190128786
sonydisneg	-0.0004334264	0.0066833268	0.03026630544	0.0005733788	0.02952528219
nokiadisneg	0.8618161685	0.0176411729	0.08716772375	-0.0026116509	0.08697455106
htcdisneg	0.0236416043	0.5507719471	0.00026635605	0.7062400990	0.00108309023
iphonedisunc	0.0014872051	0.0928433746	0.02409099154	0.1330645569	0.02369573080
samsungdisunc	0.1362353653	0.3446151023	0.07862608446	0.5944693078	0.06334201347
sonydisunc	-0.0009167952	0.0358684435	0.01466588899	-0.0027348811	0.01437363768
nokiadisunc	0.9239341089	0.0073259556	0.10202802119	-0.0020901045	0.10200349181
htcdisunc	0.0106498118	0.7213154358	0.00641050615	0.4831068089	0.00673023583
iphoneperpos	0.0154071336	0.1239551674	0.21168142308	0.2417512206	0.22606256595
samsungperpos	0.0555134081	0.1892372729	0.27425435067	0.4443856329	0.21426010465
sonyperpos	-0.0012730133	0.0123505505	0.00583954857	0.0077913188	0.00580902403
nokiaperpos	0.9173329873	0.0163745389	0.08493374403	0.0020368901	0.08451542348
htcperpos	0.0205603676	0.8498301985	-0.00281057364	0.3804555947	-0.00277450092
iphoneperneg	0.0154263846	0.1407345338	0.24850157279	0.3466626958	0.28395812962
samsungperneg	0.0571916516	0.2713156267	0.20285474860	0.7584015158	0.16152304268
sonyperneg	-0.0006379553	0.0062945258	0.00002880773	0.0105302521	0.00008837727
nokiaperneg	0.9052213220	0.0177348957	0.07953862219	0.0005009751	0.07980524567
htcperneg	0.0268139175	0.6598137354	-0.00363211367	0.6291204572	-0.00256399357

iphoneperunc	0.0126468721	0.1720801124	0.16761088743	0.2440512068	0.18041980518
samsungperunc	0.1038701208	0.3462233283	0.10291871466	0.6170543151	0.08331176957
sonyperunc	-0.0007719050	0.0297101928	-0.00273968818	-0.0023026608	-0.00259592417
nokiaperunc	1.0000000000	0.0123640928	0.09832378207	0.0031671929	0.09884705731
htcperunc	0.0123640928	1.0000000000	0.00095989241	0.3331110571	0.00066355283
iosperpos	0.0983237821	0.0009598924	1.00000000000	-0.0097593780	0.93237885191
googleperpos	0.0031671929	0.3331110571	-0.00975937802	1.0000000000	-0.00924725868
iosperneg	0.0988470573	0.0006635528	0.93237885191	-0.0092472587	1.00000000000
googleperneg	-0.0001510116	0.2809673805	-0.01072746573	0.9574081611	-0.01016454638
iosperunc	0.1577030654	0.0084299182	0.90507428524	-0.0095697521	0.89981373312
googleperunc	0.0041721138	0.3946571026	-0.00608889643	0.8870326954	-0.00576938410
galaxysentiment	-0.0323515603	-0.1144875788	-0.01546352398	-0.1328412643	-0.01188708655
googleperneg		iosperunc		googleperunc	galaxysentiment
iphone	0.1287539494	-0.0199942152	0.0628939791	0.001486419	
samsunggalaxy	0.2912043221	-0.0154150726	0.1423566132	-0.345257248	
sonyxperia	-0.0086032820	-0.0148454995	-0.0079389223	-0.219816736	
nokialumina	0.0006319213	0.0528654693	0.0079866214	-0.052469037	
htcphone	0.0207186100	-0.0026750279	0.0133005184	-0.051909142	
ios	-0.0180889501	0.1170506428	-0.0102672660	-0.011527725	
googleandroid	0.7169205938	-0.0164341632	0.3722010590	-0.186733253	
iphoncampos	0.1244423317	-0.0010150920	0.0730537373	-0.031921433	
samsungcampos	0.3578076395	0.0449525543	0.1593681328	-0.112302827	
sonycampos	0.0088197536	-0.0064008355	-0.0034229725	-0.076336596	
nokiacampos	0.0039264212	0.1651775918	0.0125098136	-0.031771935	
htccampos	0.1773052396	-0.0060760353	0.1000721774	-0.120156303	
iphoncamneg	0.4688720637	-0.0107455504	0.2414102339	-0.093805039	
samsungcamneg	0.7942718540	0.0469955688	0.3421030588	-0.182639799	
sonycamneg	0.0251141558	-0.0028784831	-0.0015393253	-0.009612904	
nokiacamneg	-0.0004601931	0.1436642579	0.0037635740	-0.031840313	
htccamneg	0.6534608337	-0.0102249759	0.3341386094	-0.222750052	
iphoncamunc	0.0748746569	-0.0013682787	0.0581564942	-0.010329492	
samsungcamunc	0.4785514979	0.0578678902	0.2704794080	-0.136028471	
sonycamunc	-0.0041336943	-0.0043874590	-0.0023462799	-0.047872336	
nokiacamunc	0.0012853540	0.1734942045	0.0068209492	-0.027752416	
htccamunc	0.2277658772	-0.0051893582	0.1625629101	-0.148868149	
iphonedispos	0.1473005875	0.0248339180	0.1800083584	0.009145782	
samsungdispos	0.5809127842	0.0573932211	0.6371415303	-0.095659580	
sonydispos	0.0018226190	-0.0034880789	-0.0018653187	-0.034666620	
nokiadispos	-0.0026805855	0.1272536659	-0.0015214970	-0.024478349	
htcdispos	0.1092615661	0.0005828749	0.1240397587	-0.060638338	
iphonedisneg	0.2139622315	0.0182688380	0.2047130226	-0.003520125	
samsungdisneg	0.8265965415	0.0506859021	0.7355217500	-0.132665246	
sonydisneg	0.0018997752	-0.0015084508	-0.0008066737	-0.019882775	
nokiadisneg	-0.0028707152	0.1393990259	-0.0016294145	-0.026931014	
htcdisneg	0.7904714160	0.0098532417	0.6451038643	-0.190575725	
iphonedisunc	0.1062453012	0.0301521910	0.1725370516	0.019354502	
samsungdisunc	0.5128155534	0.0399469239	0.7385745130	-0.055898029	
sonydisunc	-0.0030061693	-0.0031907160	-0.0017062980	-0.030999910	
nokiadisunc	-0.0022974338	0.1626827248	-0.0013040206	-0.023286467	
htcdisunc	0.4066296768	0.0196570169	0.5935929474	-0.132600148	
iphoneperpos	0.2202230733	0.2131534593	0.2390473486	0.024619007	
samsungperpos	0.4413118979	0.1370706828	0.4276221323	-0.077430604	
sonyperpos	0.0081553611	-0.0044304593	-0.0023692751	-0.023356142	
nokiaperpos	-0.0008395263	0.1359298701	0.0031320281	-0.035892661	
htcperpos	0.3586266425	-0.0001956438	0.3684965570	-0.175447029	
iphoneperneg	0.3501220814	0.2568111900	0.2974246632	-0.008834592	
samsungperneg	0.7963563517	0.1031163135	0.6412217078	-0.133426703	
sonyperneg	0.0121307829	-0.0022202714	-0.0011873337	-0.023419155	
nokiaperneg	-0.0016219132	0.1279884203	0.0016260796	-0.039533475	
htcperneg	0.6391886849	0.0003219026	0.5401134706	-0.207231582	
iphoneperunc	0.1973448149	0.1828074372	0.2986927143	0.032683689	
samsungperunc	0.5420466111	0.0539631498	0.7406073126	-0.054218889	
sonyperunc	-0.0025310747	-0.0026864557	-0.0014366349	-0.013355842	
nokiaperunc	0.0001510116	0.1577030654	0.0041721138	-0.032351560	
htcperunc	0.2809673805	0.0084299182	0.3946571026	-0.114487578	
iosperpos	-0.0107274657	0.9050742852	-0.0060888964	-0.015463524	
googleperpos	0.9574081611	-0.0095697521	0.8870326954	-0.132841264	
iosperneg	-0.0101645464	0.8998137331	-0.0057693841	-0.011887087	
googleperneg	1.0000000000	-0.0105190298	0.7561152696	-0.159571761	
iosperunc	-0.0105190298	1.0000000000	-0.0059705884	-0.015547663	
googleperunc	0.7561152696	-0.0059705884	1.0000000000	-0.067570988	
galaxysentiment	-0.1595717615	-0.0155476630	-0.0675709882	1.000000000	

Remove highly correlated variables

Hide

```
# returns correlation greater than .9
corr_df <- correlate(samsung, diagonal = NA) %>% stretch()
```

```
Correlation method: 'pearson'
Missing treated using: 'pairwise.complete.obs'
```

Hide

```
# Examine variables with correlation above .9
corr_df_filtered <- corr_df %>% filter(r > .9)
```

Which variables will I keep? I copied corr_df_big_filtered into a spreadsheet and removed all duplicates.

“iphone”, “htcphone”, “ios”, “nokiacampos”, “nokiacamneg”, “nokiacamunc”, “samsungdispos”, “sonydispos”, “nokiadispos”, “htcdispos”, “samsungdisneg”, “sonydisr

Hide

```
#columns to remove

corr_to_remove <- c("iphone", "htcphone", "ios", "nokiacampos", "nokiacamneg", "nokiacamunc", "samsungdispos", "sonydispos", "nokiadispos", "htcdispos", "samsungdisneg", "sonydisneg", "nokiadisneg", "samsungdisunc", "nokiadisunc", "nokiaperpos", "samsungperneg", "nokiaperneg", "samsungperunc", "nokiaperunc", "iosperpos", "googleperpos", "iosperneg")
```

Hide

```
samsungCOR <- samsung[ , -which(names(samsung) %in% corr_to_remove)]
```

Hide

```
names(samsungCOR)
```

```
[1] "samsunggalaxy"  "sonyxperia"    "nokialumina"   "googleandroid" "iphonecampos"
[6] "samsungcampos"  "sonycampos"    "htccampos"     "iphonecamneg"  "samsungcamneg"
[11] "sonycamneg"     "htccamneg"     "iphonecamunc"  "samsungcamunc" "sonycamunc"
[16] "htccamunc"      "iphonedispos"  "iphonedisneg"  "htcdisneg"     "iphonedisunc"
[21] "sonydisunc"     "htcdisunc"     "iphoneperpos"  "samsungperpos" "sonyperpos"
[26] "htcperpos"      "iphoneperneg"  "sonyperneg"    "htcperneg"     "iphoneperunc"
[31] "sonyperunc"     "htcperunc"     "googleperneg"  "iosperunc"     "googleperunc"
[36] "galaxysentiment"
```

Train Model

Train and Test Set

Hide

```
# convert variable types, categorical
samsungCOR$galaxysentiment <- as.factor(samsungCOR$galaxysentiment)
```

Train and Test Set:

Hide

```
# Create Train and Test Set for samsungCOR
# create 75% sample of row indices
in_training <- createDataPartition(samsungCOR$galaxysentiment, p = .7, list = FALSE)
# create 75% sample of data and save it to trainData
trainData_samsungCOR <- samsungCOR[in_training, ]
# create 25% sample of data and save it to test_data
testData_samsungCOR <- samsungCOR[-in_training, ]
# verify split percentages
nrow(trainData_samsungCOR) / nrow(samsungCOR)
```

```
[1] 0.7001781
```

Models

Hide

```
#c5
c5_samsungCOR <- train(galaxysentiment ~., data = trainData_samsungCOR, method = "C5.0",
  trControl = fitControl)
```

Hide

```
# randomforest
rf_samsungCOR <- train(galaxysentiment ~., data = trainData_samsungCOR, method = "rf",
                      trControl = fitControl)
```

Hide

```
## svm performed worst in out-of-box model test
# svm (kernlab)
#svm_samsungCOR <- train(galaxysentiment ~., data = trainData_samsungCOR, method = "svmLinear",
#                      trControl = fitControl)
```

Hide

```
# kknn
kknn_samsungCOR <- train(galaxysentiment ~., data = trainData_samsungCOR, method = "kknn",
                      trControl = fitControl)
```

Hide

```
# gbm
#gbm_samsungCOR <- train(galaxysentiment ~., data = trainData_samsungCOR, method = "gbm",
#                      trControl = fitControl)
```

Model Summaries

Compare Accuracy on Prediction Results:

Hide

```
#c5
prediction_c5_samsungCOR <- predict(c5_samsungCOR, testData_samsungCOR)
postResample(prediction_c5_samsungCOR, testData_samsungCOR$galaxysentiment)
```

Accuracy	Kappa
0.7253940	0.4398521

Hide

```
#randomforest
prediction_rf_samsungCOR <- predict(rf_samsungCOR, testData_samsungCOR)
postResample(prediction_rf_samsungCOR, testData_samsungCOR$galaxysentiment)
```

Accuracy	Kappa
0.7284939	0.4514073

Hide

```
#svm
#prediction_svm_samsungCOR <- predict(svm_samsungCOR, testData_samsungCOR)
#postResample(prediction_svm_samsungCOR, testData_samsungCOR$galaxysentiment)
# kknn
prediction_kknn_samsungCOR <- predict(kknn_samsungCOR, testData_samsungCOR)
postResample(prediction_kknn_samsungCOR, testData_samsungCOR$galaxysentiment)
```

Accuracy	Kappa
0.7160940	0.4328108

Hide

```
modelData_samsungCOR <- resamples(list(C50 = c5_samsungCOR, randomForest = rf_samsungCOR,
                                     #svMLinear = svm_samsungCOR,
                                     kknn = kknn_samsungCOR))
```

Hide

```
summary(modelData_samsungCOR)
```

```
Call:
summary.resamples(object = modelData_samsungCOR)
```

```
Models: C50, randomForest, kknn
Number of resamples: 10
```

Accuracy

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
C50	0.7038674	0.7199776	0.7225914	0.7241212	0.7304932	0.7419712	0
randomForest	0.7142857	0.7195796	0.7251097	0.7255498	0.7280033	0.7447514	0
kknn	0.6991150	0.7065338	0.7097130	0.7129433	0.7182056	0.7411504	0

Kappa

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
C50	0.3874464	0.4231943	0.4312376	0.4383983	0.4535862	0.4835402	0
randomForest	0.4136777	0.4269169	0.4450812	0.4467860	0.4581260	0.4920684	0
kknn	0.4040034	0.4125521	0.4204905	0.4273078	0.4324696	0.4887755	0