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## **ARTIST COLLABORATION NETWORKS**

### **RESULTS FOR EACH COUNTRY (2019):**

#### **1)Australia**

<b><u>Degree</u></b>	<b><u>Betweenness</u></b>	<b><u>Closeness</u></b>
Ed Sheeran : 0.0625	Khalid : 0.1200585	Post Malone : 0.194516231
Post Malone : 0.057291666	Ed Sheeran : 0.089426996	Khalid : 0.19242240760
Khalid : 0.052083333333333	Ty Dolla \$ign : 0.08892387	Cardi B : 0.1915974455162
Travis Scott : 0.046875	Post Malone : 0.08204855	Ty Dolla \$ign : 0.18737989
Cardi B : 0.046875	Cardi B : 0.075593067745	Ed Sheeran : 0.186597512
Tyga : 0.041666666666666	A Boogie Wit da Hoodie : 0.05680224580486776	A Boogie Wit da Hoodie : 0.18543611687413
Dreamville : 0.0364583333	Camila Cabello : 0.047539044965796536	DJ Khaled : 0.18002056059
Bas : 0.03125	The Chainsmokers : 0.0460428661501945	21 Savage : 0.1745707194
JID : 0.03125	DaBaby : 0.042048929677	Young Thug : 0.173553802
The Chainsmokers: 0.028645833333333332	Marshmello : 0.0397837554	Camila Cabello : 0.1722162

#### **2)Brazil**

<b><u>Degree</u></b>	<b><u>Betweenness</u></b>	<b><u>Closeness</u></b>
Anitta : 0.1085271317829	Anitta : 0.3368435613114	Anitta : 0.2461349308080
Pineapple StormTv: 0.09043927648578	Vitão : 0.08285102615459	Vitão : 0.21326896051498
Salve Malak: 0.077519379	Wesley Safadão: 0.073099	Luísa Sonza: 0.206818481
MC Kevin o Chris : 0.04909	Cardi B : 0.070659323065	Wesley Safadão: 0.206428
Bob do Contra: 0.04392764	Matheus & Kauan : 0.06373074624829492	MC Kevinho : 0.205652211
Xamã: 0.043927648578811	MC Kevin o Chris : 0.06104	Lexa : 0.20469032131746
Ludmilla : 0.03875968992248062	MC Kevinho : 0.05979655140436409	MC Cabelinho : 0.20392726326968508
Vitão : 0.03875968992248062	Ozuna : 0.054860234274540724	Marília Mendonça : 0.20373738686068166
Ducon : 0.03875968992248	Dennis DJ : 0.05392443968	Matheus & Kauan : 0.20260551248923
Kayuá : 0.0387596899224	MC Cabelinho : 0.0502262	Papatinho : 0.20056274380

#### **3)Canada**

<b><u>Degree</u></b>	<b><u>Betweenness</u></b>	<b><u>Closeness</u></b>
Ed Sheeran : 0.05215419501133787	Ty Dolla \$ign : 0.0869692716915997	Ty Dolla \$ign : 0.22966018558723728
Post Malone : 0.049886621315192746	Khalid : 0.07848978916739562	Nicki Minaj : 0.22351741962243626

DJ Khaled : 0.049886621315192746	Drake : 0.060152170102786236	Post Malone : 0.22313237669457678
Tyga : 0.04761904761904762	Nicki Minaj : 0.06000204662599793	J Balvin : 0.22313237669457678
Travis Scott : 0.045351473922902494	J Balvin : 0.05809122609170766	Cardi B : 0.22236625694626921
J Balvin : 0.04308390022675737	Ed Sheeran : 0.052715940704584026	Chris Brown : 0.22236625694626921
Drake : 0.04308390022675737	Daddy Yankee : 0.05174216328643625	DJ Khaled : 0.2221755483211009
DaBaby : 0.04308390022675737	Chris Brown : 0.048061086427075066	Khalid : 0.22160538010470798
Offset : 0.04308390022675737	XXXTENTACION : 0.04679398322999717	A Boogie Wit da Hoodie : 0.2176946969263896
Young Thug : 0.04081632653061225	Post Malone : 0.046517861647631276	Drake : 0.2173294373677883

#### 4)Germany

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
Capital Bra : 0.048736462093862815	Capital Bra : 0.09002876778630674	Lil Baby : 0.1639984773123727
Ed Sheeran : 0.04151624548736462	6ix9ine : 0.08374040973321178	Veysel : 0.1611049355954213
Post Malone : 0.036101083032490974	Nicki Minaj : 0.0822980908352324	6ix9ine : 0.1608303249097473
David Guetta : 0.03429602888086643	A Boogie Wit da Hoodie : 0.07809155844648631	Ufo361 : 0.1603747149241673
Nimo : 0.03068592057761733	David Guetta : 0.07401411070092871	Gringo : 0.1574312412909651
Gringo : 0.03068592057761733	Ed Sheeran : 0.07164157855867433	Luciano : 0.155956678700361
Luciano : 0.03068592057761733	Farid Bang : 0.06973852482728639	Farid Bang : 0.15518715561466845
RAF Camora : 0.02888086642599278	Lil Baby : 0.0681169031410355	Ed Sheeran : 0.15467834526839086
Ufo361 : 0.02888086642599278	Post Malone : 0.06524267965726294	Capital Bra : 0.1544251892204884
J Balvin : 0.02888086642599278	Veysel : 0.06431334371726337	Gzuz : 0.14937275558900015

#### 5)France

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
Ninho : 0.05995203836930455	J Balvin : 0.1277933924403872	Soolking : 0.16197394197318202
Jul : 0.04796163069544364	Diplo : 0.09887102749498225	Niska : 0.16084125706427865
J Balvin : 0.04556354916067146	Niska : 0.0930175941078259	Dadju : 0.16070078435068538
Dadju : 0.03836930455635491	Ninho : 0.07877435809245086	Gradur : 0.16070078435068538
David Guetta : 0.03836930455635491	Cardi B : 0.07040133511793863	Ninho : 0.1586227569668403
Nekfeu : 0.03357314148681055	Lacrim : 0.06638334837297818	Heuss L'enfoiré : 0.158213583905017
Koba LaD : 0.031175059952038366	Dadju : 0.059288830362917794	SCH : 0.1552762853008732
Lacrim : 0.031175059952038366	Jul : 0.05299902121527812	Landy : 0.15488417346930536
Diplo : 0.026378896882494004	Gradur : 0.051797039277837256	Alonzo : 0.15462386393406283
Heuss L'enfoiré : 0.026378896882494004	Soolking : 0.046984077053865946	Jul : 0.15449403701220382

#### 6)United Kingdom

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
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Ed Sheeran : 0.05803571428571428	Post Malone : 0.13716133049854934	Post Malone : 0.20785661803295893
Post Malone : 0.049107142857142856	Ed Sheeran : 0.116940709932798	Ed Sheeran : 0.20755161932711452
Aitch : 0.03794642857142857	French Montana : 0.1129587591385708	Cardi B : 0.20724751439037153
Cardi B : 0.03794642857142857	Khalid : 0.06942132178707637	A Boogie Wit da Hoodie : 0.2012040235724446
DJ Khaled : 0.03794642857142857	Cardi B : 0.06936664316101496	French Montana : 0.20077562607725843
Travis Scott : 0.03571428571428571	A Boogie Wit da Hoodie : 0.06364313059982586	DJ Khaled : 0.19880032125288624
D-Block Europe : 0.03571428571428571	Sigala : 0.062468650604983154	Young Thug : 0.19838208775796431
Krept & Konan : 0.033482142857142856	Ty Dolla \$ign : 0.059734283230560924	Meek Mill : 0.1942945447409733
Skepta : 0.033482142857142856	Tiësto : 0.05805151189889607	J Balvin : 0.19296920678230364
Khalid : 0.033482142857142856	Marshmello : 0.05154420812841689	Roddy Ricch : 0.1917917675544794

## 7)Japan

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
Ed Sheeran : 0.07106598984771573	The Chainsmokers : 0.1816792706930488	Halsey : 0.13480317207917966
The Chainsmokers : 0.055837563451776644	Halsey : 0.18059152595048172	benny blanco : 0.1311171478426396
J Balvin : 0.04568527918781726	Ty Dolla \$ign : 0.09447840049725474	Khalid : 0.1290999609527528
Justin Bieber : 0.04568527918781726	Ed Sheeran : 0.09402172036327236	Selena Gomez : 0.1288521683213656
Avicii : 0.04060913705583756	Zedd : 0.09080078732000414	The Chainsmokers : 0.12618793175832982
Ariana Grande : 0.04060913705583756	Kehlani : 0.09043820573914844	Cardi B : 0.11881766317775481
Khalid : 0.035532994923857864	Khalid : 0.08910010704789535	J Balvin : 0.11860773797779411
Zedd : 0.035532994923857864	benny blanco : 0.08718360440622941	Ed Sheeran : 0.11839855325472921
Marshmello : 0.035532994923857864	Selena Gomez : 0.08643513242860587	Tainy : 0.11736360086613892
Ozuna : 0.035532994923857864	Cardi B : 0.05719465451155084	BTS : 0.11594469722872447

## 8)United States of America

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
Dreamville : 0.07029478458049887	Ty Dolla \$ign : 0.13961847830461935	Ty Dolla \$ign : 0.2588795692243968
Chance the Rapper : 0.06575963718820863	The Chainsmokers : 0.07566723296126857	Nicki Minaj : 0.24582104228121923
J Balvin : 0.05668934240362812	Khalid : 0.07123941957159455	YG : 0.24409295059558678
Young Thug : 0.05215419501133787	Nicki Minaj : 0.06460150367464773	Khalid : 0.24409295059558678
Post Malone : 0.05215419501133787	Chance the Rapper : 0.055749159235096456	A Boogie Wit da Hoodie : 0.24133603629693984
Ed Sheeran : 0.05215419501133787	A Boogie Wit da Hoodie : 0.049175437615337325	Post Malone : 0.2402921953094963
DaBaby : 0.049886621315192746	Ed Sheeran : 0.04857468469224507	Gunna : 0.23660798788567103
A Boogie Wit da Hoodie : 0.049886621315192746	J Balvin : 0.04751537383738028	Meek Mill : 0.2358045651763818
Gucci Mane : 0.049886621315192746	XXXTENTACION : 0.04687025216566059	Cardi B : 0.23540489642184556
J. Cole : 0.04761904761904762	Diplo : 0.04141547718158029	DJ Khaled : 0.23500658018424517

## GLOBAL RESULTS FOR EACH YEAR:

### 9)Global (2017)

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
Drake : 0.051470588235294115	David Guetta : 0.07657473761188938	Major Lazer : 0.1979494816427058
J Balvin : 0.051470588235294115	J Balvin : 0.06953189097114873	Camila Cabello : 0.19679972666704632
Calvin Harris : 0.049019607843137254	Bebe Rexha : 0.06544017697225891	Nicki Minaj : 0.19660939811127548
Travis Scott : 0.04656862745098039	Major Lazer : 0.06491226898625103	Young Thug : 0.19604061489591015
Future : 0.04656862745098039	Camila Cabello : 0.0603324024685393	Travis Scott : 0.19547511312217197
Quavo : 0.04166666666666664	Future : 0.059155379756213745	Future : 0.18964003511852504
Nicki Minaj : 0.03676470588235294	Daddy Yankee : 0.05493914645503251	Drake : 0.1870231073110017
Daddy Yankee : 0.03676470588235294	Justin Bieber : 0.051743817735189726	Ty Dolla \$ign : 0.18347844552983647
Logic : 0.03676470588235294	French Montana : 0.04920889652053614	Bebe Rexha : 0.1824902312810223
Lil Wayne : 0.03431372549019608	Nicki Minaj : 0.04333985331682205	Ed Sheeran : 0.18200010532413505

### 10)Global (2018)

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
Ozuna : 0.05405405405405406	J Balvin : 0.09813731139348462	J Balvin : 0.2167526815306295
Bad Bunny : 0.05197505197505198	Cardi B : 0.0749877416273662	Ty Dolla \$ign : 0.21609084128168096
J Balvin : 0.0498960498960499	Quavo : 0.0626837652570817	Cardi B : 0.2147792125030365
Nicki Minaj : 0.04573804573804574	Nicki Minaj : 0.0610354670904826	Nicki Minaj : 0.21396749968178538
Cardi B : 0.04158004158004158	Khalid : 0.057577849502113525	Drake : 0.2090686869121138
Logic : 0.04158004158004158	Ty Dolla \$ign : 0.05566951823289086	Quavo : 0.20768818934629646
Travis Scott : 0.0395010395010395	David Guetta : 0.05022334424464341	David Guetta : 0.20753592527786074
Swae Lee : 0.035343035343035345	Logic : 0.050077237787347295	Maluma : 0.20632580326457875
Drake : 0.035343035343035345	Drake : 0.04813625668011303	Lil Wayne : 0.2055766173413232
Anuel AA : 0.035343035343035345	Lil Wayne : 0.047923025235578946	French Montana : 0.20483285244500876

### 11)Global (2019)

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
J Balvin : 0.06273764258555133	J Balvin : 0.12351204549812299	J Balvin : 0.2111292482430332
Nicky Jam : 0.051330798479087454	Cardi B : 0.07536423598361569	Cardi B : 0.200805079624792
Farruko : 0.051330798479087454	Khalid : 0.05449910282227925	Tainy : 0.18982113459138655
Anuel AA : 0.043726235741444866	Ed Sheeran : 0.04866219521976986	Diplo : 0.18779560419178337
Ed Sheeran : 0.043726235741444866	Anitta : 0.046742473873335466	Farruko : 0.18623418949328782
Sech : 0.04182509505703422	Diplo : 0.04618594876957572	benny blanco : 0.18567282042171798
Ozuna : 0.04182509505703422	Farruko : 0.03739195133763731	Post Malone : 0.18483708379566374

Post Malone : 0.04182509505703422	Nicki Minaj : 0.0355318634680943	Bad Bunny : 0.18456017430683128
Daddy Yankee : 0.03802281368821293	Post Malone : 0.03499461562782575	Anitta : 0.18442203046378725
Dalex : 0.034220532319391636	Nicky Jam : 0.030605572631017902	Chris Brown : 0.1831879797023195

## **GENRE COLLABORATION NETWORKS**

### **1)Australia**

<b><u>Degree</u></b>	<b><u>Betweenness</u></b>	<b><u>Closeness</u></b>
pop : 0.7176470588235294	dance pop : 0.09206955747801399	dance pop : 0.44831255922443325
dance pop : 0.5843137254901961	pop : 0.09122939231722069	post-teen pop : 0.4433679354094579
pop rap : 0.5411764705882353	canadian pop : 0.07600746110534466	pop : 0.4345804628157569
post-teen pop : 0.5254901960784314	post-teen pop : 0.07586049885631602	hip hop : 0.42613455276103374
rap : 0.4784313725490196	rock : 0.05745223972910618	tropical house : 0.42314413484692126
trap : 0.3803921568627451	hip hop : 0.05097957530544827	canadian pop : 0.42314413484692126
tropical house : 0.3764705882352941	pop rap : 0.049612267829816384	progressive electro house : 0.42092872052835095
edm : 0.3764705882352941	alternative r&b : 0.043804894904316584	canadian hip hop : 0.41946462063086104
hip hop : 0.3529411764705882	tropical house : 0.041486708257564675	alternative r&b : 0.4172874686206663
melodic rap : 0.2980392156862745	electropop : 0.04025325884037259	canadian contemporary r&b : 0.4172874686206663

### **2)Brazil**

<b><u>Degree</u></b>	<b><u>Betweenness</u></b>	<b><u>Closeness</u></b>
funk carioca : 0.5460122699386504	post-teen pop : 0.10219558872627484	electropop : 0.43096081267561137
baile pop : 0.5337423312883436	pop rap : 0.09439740128753471	post-teen pop : 0.42979605372243407
pop : 0.5337423312883436	dfw rap : 0.0831132875428906	r&b : 0.4130507529280535
dance pop : 0.43558282208588955	funk carioca : 0.08039093046688273	moombahton : 0.41198067325725546
post-teen pop : 0.4171779141104295	electropop : 0.07311372228860878	urban contemporary : 0.41198067325725546
funk das antigas : 0.4171779141104295	baile pop : 0.0635224632672228	hip pop : 0.41091612371395503
pagode baiano : 0.4171779141104295	pop nacional : 0.059586371161115696	tropical house : 0.4098570615394346
pop rap : 0.37423312883435583	rock : 0.0588881314852685	afrofuturismo brasileiro : 0.4077552304546169
pop nacional : 0.36809815950920244	pop : 0.05398744983363211	funk carioca : 0.4067123782028148
rap : 0.3006134969325153	funk das antigas : 0.05135463454640653	mexican pop : 0.40361558344492543

### **3)Canada**

<b><u>Degree</u></b>	<b><u>Betweenness</u></b>	<b><u>Closeness</u></b>
pop : 0.7380073800738007	pop : 0.09731267584547795	pop : 0.4633888501047173
dance pop : 0.6236162361623616	canadian pop : 0.0914143232061982	post-teen pop : 0.44494950139812817
pop rap : 0.6014760147601476	post-teen pop : 0.06653975225732905	dance pop : 0.44341519277261743

rap : 0.5571955719557196	dance pop : 0.06635714650879568	tropical house : 0.44341519277261743
post-teen pop : 0.49815498154981547	rock : 0.053451018791305635	panamanian pop : 0.44265199966973856
trap : 0.46494464944649444	hip hop : 0.04711452255237627	hip hop : 0.4418914292235706
hip hop : 0.44649446494464945	pop rap : 0.045812407659980105	edm : 0.43887510547460423
edm : 0.4022140221402214	edm : 0.043278161515925194	canadian pop : 0.43589968103070864
tropical house : 0.3985239852398524	alternative r&b : 0.042571434344967705	progressive electro house : 0.43516211811864314
melodic rap : 0.33948339483394835	tropical house : 0.04098842663740232	deep pop r&b : 0.4329643296432964

#### 4)Germany

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
pop : 0.625	pop : 0.2060502659356974	pop : 0.4298507462686567
dance pop : 0.4861111111111111	german hip hop : 0.10044706473008286	pop rap : 0.4131994261119082
pop rap : 0.4236111111111111	adult standards : 0.08588362189637434	tropical house : 0.41260744985673353
tropical house : 0.3993055555555555	pop rap : 0.0850107258848798	german hip hop : 0.41025641025641024
post-teen pop : 0.3784722222222222	german pop : 0.07814710513329269	dance pop : 0.4096728307254623
edm : 0.3680555555555555	dance pop : 0.07554240122537521	electropop : 0.40620592383638926
rap : 0.3506944444444444	tropical house : 0.0587803803393943	edm : 0.4011142061281337
trap : 0.28125	electropop : 0.05478480285441523	electro house : 0.3988919667590028
uk pop : 0.2743055555555555	edm : 0.04949407303283055	bmore : 0.3988919667590028
german hip hop : 0.2673611111111111	post-teen pop : 0.04734179839975029	ninja : 0.3988919667590028

#### 5)France

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
pop : 0.6009174311926606	pop : 0.1524779991518889	pop : 0.4421906693711968
dance pop : 0.46788990825688076	french hip hop : 0.1038091873488047	tropical house : 0.42412451361867703
tropical house : 0.4174311926605505	pop urbaine : 0.09562352370486674	emo rap : 0.42330097087378643
french hip hop : 0.3944954128440367	tropical house : 0.08984605208006573	french hip hop : 0.42084942084942084
pop rap : 0.3944954128440367	pop rap : 0.07946138695426828	pop urbaine : 0.4168260038240918
edm : 0.3853211009174312	rock : 0.0734265603642819	edm : 0.41603053435114506
post-teen pop : 0.3807339449541285	post-teen pop : 0.07336016181662955	dance pop : 0.4090056285178236
pop urbaine : 0.3669724770642202	edm : 0.07218387701094423	southern hip hop : 0.4074766355140187
rap : 0.2981651376146789	dance pop : 0.06704570173070458	neo soul : 0.4044526901669759
electropop : 0.24770642201834864	rap conscient : 0.0635406956275738	rap conscient : 0.40370370370370373

#### 6)United Kingdom

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
pop : 0.7137546468401487	dance pop : 0.11461276104104269	dance pop : 0.47786920624312546

dance pop : 0.6022304832713754	pop : 0.10036626780178849	post-teen pop : 0.4516498338651841
post-teen pop : 0.5427509293680297	post-teen pop : 0.08963462017378265	pop : 0.45085186596082866
pop rap : 0.5315985130111524	tropical house : 0.05877325243398983	tropical house : 0.44379505414578957
rap : 0.45724907063197023	rock : 0.05612236723274099	melodic rap : 0.42959958945089055
tropical house : 0.42007434944237915	pop rap : 0.04477315716081877	afro dancehall : 0.4274407975441022
vtrap : 0.37174721189591076	house : 0.044632511246942466	progressive electro house : 0.42672601360172074
edm : 0.34572490706319703	edm : 0.040306652649198936	canadian hip hop : 0.42530359355638164
uk pop : 0.3271375464684015	canadian pop : 0.03836615469958333	social media pop : 0.42389062480702494
hip hop : 0.3159851301115241	uk pop : 0.03597107967792543	indie poptimism : 0.42389062480702494

## 7)Japan

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
pop : 0.7305389221556887	post-teen pop : 0.14862316880409548	dance pop : 0.44518328781530425
dance pop : 0.5808383233532934	rock : 0.12246257028563284	post-teen pop : 0.43531773019058834
post-teen pop : 0.5568862275449102	dance pop : 0.11377223189662937	tropical house : 0.4213128702380761
pop rap : 0.437125748502994	pop : 0.10254885774965761	indie poptimism : 0.41795133137979357
tropical house : 0.40119760479041916	k-pop : 0.08658167106267568	pop : 0.41031253420052843
edm : 0.37724550898203596	tropical house : 0.06591458423030555	big room : 0.41031253420052843
electropop : 0.30538922155688625	j-pop : 0.06511584425600679	j-pop : 0.4092440119760479
uk pop : 0.28742514970059885	pop rap : 0.064001688801155	indietronica : 0.40398380616658713
rap : 0.281437125748503	uk pop : 0.06108342232966214	bmore : 0.4029479502533395
trap : 0.23952095808383234	big room : 0.05435601294483264	ninja : 0.4029479502533395

## 8)United States of America

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
pop : 0.6853932584269663	post-teen pop : 0.08405047396765229	post-teen pop : 0.4594982225031778
pop rap : 0.651685393258427	pop rap : 0.08164593420724582	dance pop : 0.4553660442432571
rap : 0.5842696629213483	pop : 0.07743916623681134	tropical house : 0.44262853251617296
dance pop : 0.5393258426966292	rock : 0.07542381451383437	progressive electro house : 0.44108627282099466
hip hop : 0.46441947565543074	dance pop : 0.06947258748270983	brostep : 0.43955472326258843
post-teen pop : 0.45692883895131087	escape room : 0.049421602619791456	dmv rap : 0.4380337726630639
trap : 0.44569288389513106	hip hop : 0.04269619330691378	pop : 0.43652331137801886
melodic rap : 0.35580524344569286	tropical house : 0.04257715558387671	pop rap : 0.43577198037736825
tropical house : 0.34831460674157305	adult standards : 0.03816462574318294	indie poptimism : 0.4342770507705848
edm : 0.3408239700374532	trap latino : 0.03714310489149731	trap latino : 0.4335334256836489

## GLOBAL RESULTS FOR EACH YEAR

### 9)Global (2017)

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
pop : 0.7003891050583657	pop : 0.10355628148207137	dance pop : 0.4370897878276191
dance pop : 0.5953307392996109	canadian pop : 0.08080980843359929	electropop : 0.4330048365395105
pop rap : 0.5642023346303502	dance pop : 0.07691469644458296	pop : 0.42979144257632307
rap : 0.5252918287937743	electropop : 0.05578090938738278	canadian pop : 0.42741252315246886
tropical house : 0.48638132295719844	tropical house : 0.04871816136186889	afro dancehall : 0.4227328239938652
hip hop : 0.45914396887159536	rap : 0.0451056754036173	afropop : 0.4227328239938652
edm : 0.45525291828793774	rock : 0.04074086423416216	azonto : 0.4227328239938652
post-teen pop : 0.44357976653696496	edm : 0.040668870295220205	canadian hip hop : 0.4159023115774472
trap : 0.39299610894941633	pop rap : 0.03931748473268666	rap : 0.41515696693304327
southern hip hop : 0.377431906614786	hip hop : 0.03720315406612718	scandipop : 0.41515696693304327

### 10)Global (2018)

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
pop : 0.5816326530612245	pop : 0.07831678112633134	tropical : 0.4088526617800622
dance pop : 0.5374149659863945	dance pop : 0.061724346584012074	post-teen pop : 0.4070328428107148
rap : 0.4931972789115646	rap : 0.0557726323980559	latin pop : 0.40403554647190243
pop rap : 0.4693877551020408	post-teen pop : 0.04938577485624924	indie pop : 0.40403554647190243
post-teen pop : 0.4489795918367347	rock : 0.04563408541345292	pop : 0.4028489516217647
trap : 0.4183673469387755	alternative r&b : 0.044683612883506474	dance pop : 0.40108207025500253
hip hop : 0.4115646258503401	latin : 0.04206862472350429	hip pop : 0.40108207025500253
tropical house : 0.4013605442176871	hip hop : 0.04154994871921053	uk alternative pop : 0.40049654898455733
edm : 0.38095238095238093	italian hip hop : 0.04127673150609279	tropical house : 0.39991273477320954
southern hip hop : 0.3469387755102041	trap : 0.0411782728720416	electropop : 0.3981714601660693

### 11)Global (2019)

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
pop : 0.6148867313915858	post-teen pop : 0.08769799651098627	post-teen pop : 0.39860613911678805
dance pop : 0.5210355987055016	pop : 0.07685295406375021	pop : 0.3963316390362358
pop rap : 0.49190938511326865	dance pop : 0.059290098214068214	uk pop : 0.3940829488856756
post-teen pop : 0.44336569579288027	trap latino : 0.056433316198762615	dance pop : 0.39352475773994516
rap : 0.4045307443365696	rock : 0.0546845805697398	progressive electro house : 0.38427175513748446
tropical house : 0.36245954692556637	pop rap : 0.052337751730315914	canadian hip hop : 0.3837409930447531
edm : 0.36245954692556637	german cloud rap : 0.04441661128591322	southern hip hop : 0.3832116951233121



trap : 0.34304207119741104	german hip hop : 0.04272298309049368	chicago rap : 0.3832116951233121
latin : 0.31715210355987056	uk pop : 0.04033550804902304	hip hop : 0.38163252605000175
reggaeton : 0.3009708737864078	tropical house : 0.03987556650679917	tropical house : 0.37902930281637287

## HIT SONGS NETWORK

<u>Degree</u>	<u>Betweenness</u>	<u>Closeness</u>
Sturmmaske auf - Gold war gestern RMX : 0.026044005388414906	Réseaux - Remix : 0.030546621314612155	Réseaux - Remix : 0.2445251816057098
Champions : 0.024966322406825326	Afro Trap Pt. 7 (La puissance) - Major Lazer Remix : 0.02323117300891534	Know No Better (feat. Travis Scott, Camila Cabello & Quavo) : 0.24278296894034
Down for Life (feat. PARTYNEXTDOOR, Future, Travis Scott, Rick Ross & Kodak Black) : 0.024158060170633138	INTERNATIONAL GANGSTAS : 0.02322475537348	Maghreb Gang (feat. French Montana, Khaled & HAMZA) - Saucegod Remix : 0.24136273520019494
Woah : 0.02299057027391109	Olha A Explosão - Remix : 0.022364866522034153	Champions : 0.24088736105145192
Jusqu'à minuit (feat. JuL) : 0.02263134261338123	Maghreb Gang (feat. French Montana, Khaled & HAMZA) - Saucegod Remix : 0.02096075000770037	A.W.A : 0.2401441161521662
Et je deviens fou : 0.02263134261338123	Fendi Drip : 0.02094406814650586	Olha A Explosão - Remix : 0.23907118352389023
Tel Me : 0.02263134261338123	Hola Señorita : 0.018026904005721624	Writing on the Wall (feat. Post Malone & Cardi B) : 0.23850507841264515
Iced Out My Arms (feat. Future, Migos, 21 Savage & T.I.) : 0.022182308037718902	A.W.A : 0.016921401462311268	Welcome to the Party (with French Montana & Lil Pump, feat. Zhavia Ward) - from Deadpool 2 : 0.23655281953360266
J'suis loin : 0.022182308037718902	I Like It (feat. Kontra K and AK Ausserkontrolle) : 0.015379917324924861	Out Of Your Mind (feat. Chris Brown) : 0.23635690305666132
Waffen : 0.022092501122586438	VVS : 0.015206056859598931	VVS : 0.23611246334721217

## **EPPSTEIN-WANG ALGORITHM FOR APPROXIMATED CLOSENESS CENTRALITY**

<b><u>Exact value</u></b>	<b><u>Eppstein-Wang (k=30)</u></b>	<b><u>Eppstein-Wang (k=15)</u></b>	<b><u>Eppstein-Wang (k=5)</u></b>
Post Malone : 0.1945162314109539	Post Malone : 0.279645588056803	Post Malone : 0.2933537051184109	Ty Dolla \$ign: 0.383616383616383
Khalid : 0.1924224076067456	Khalid : 0.27451447634933873	Cardi B : 0.2877122877122877	Khalid : 0.3562152133580705
Cardi B : 0.1915974455162558	Cardi B : 0.2695682695682695	Ed Sheeran : 0.277056277056277	Post Malone : 0.332467532467532
Ty Dolla \$ign: 0.1873798916841369	Ed Sheeran : 0.2647971497529019	A Boogie Wit da Hoodie : 0.2770562	The Chainsmokers : 0.311688311688
Ed Sheeran : 0.1865975121781489	A Boogie Wit da Hoodie: 0.26479714	Khalid : 0.277056277056277	Nicki Minaj : 0.3116883116883117
A Boogie Wit da Hoodie: 0.18543611	DJ Khaled : 0.2647971497529019	French Montana : 0.2671614100185	Kanye West : 0.3116883116883117
DJ Khaled : 0.18002056059080226	Ty Dolla \$ign : 0.2601919819311123	Ty Dolla \$ign : 0.2624743677375256	6LACK : 0.3116883116883117
21 Savage : 0.17457071940104166	21 Savage : 0.24935064935064935	DJ Khaled : 0.26247436773752564	Young Thug : 0.29335370511841097
Young Thug : 0.17355380258899675	benny blanco : 0.2472899001824622	Young Thug : 0.25794894760411996	A Boogie Wit da Hoodie : 0.2933537
Camila Cabello : 0.17221620102761	Camila Cabello : 0.24526293378752	Meek Mill : 0.25794894760411996	Halsey : 0.29335370511841097