

```
In [72]: import matplotlib.pyplot as plt
import pandas as pd
import numpy as np
import seaborn as sns
%matplotlib inline
```

```
In [73]: twitch = pd.read_csv("twitchdata-update.csv")  
         twitch = twitch.loc[0:30,]  
         twitch
```

Out[73]:

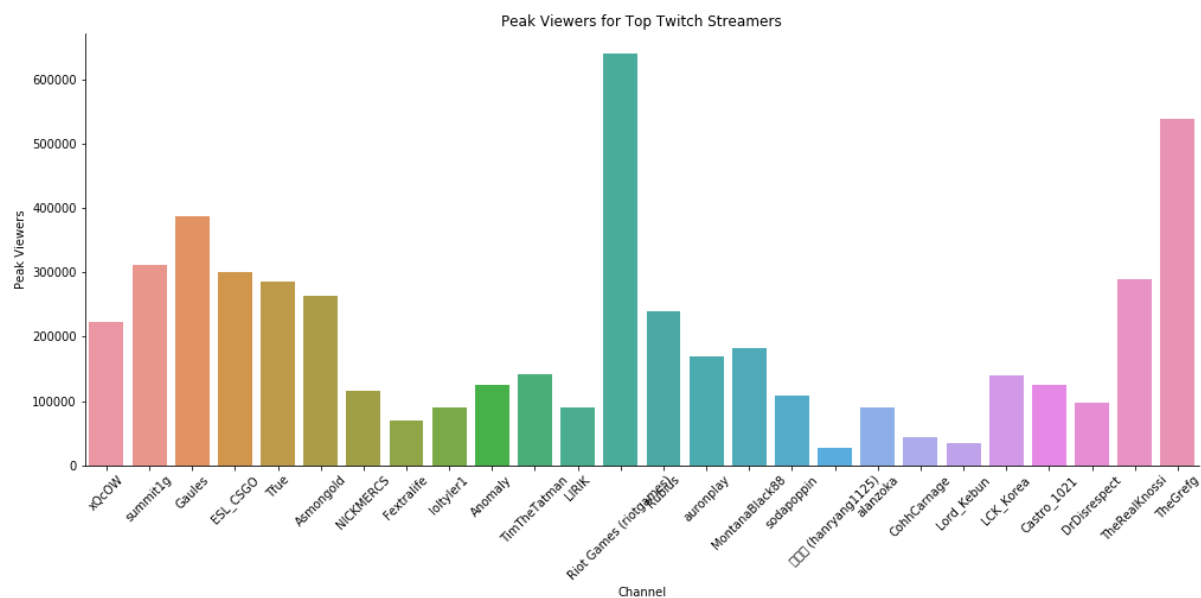
| | Channel | Watch time(Minutes) | Stream time(minutes) | Peak viewers | Average viewers | Followers | Followe gain |
|----|---------------------------|------------------------|-------------------------|-----------------|--------------------|-----------|-----------------|
| 0 | xQcOW | 6196161750 | 215250 | 222720 | 27716 | 3246298 | 1734810 |
| 1 | summit1g | 6091677300 | 211845 | 310998 | 25610 | 5310163 | 1370184 |
| 2 | Gaules | 5644590915 | 515280 | 387315 | 10976 | 1767635 | 1023779 |
| 3 | ESL_CSGO | 3970318140 | 517740 | 300575 | 7714 | 3944850 | 703986 |
| 4 | Tfue | 3671000070 | 123660 | 285644 | 29602 | 8938903 | 2068424 |
| 5 | Asmongold | 3668799075 | 82260 | 263720 | 42414 | 1563438 | 554201 |
| 6 | NICKMERC5 | 3360675195 | 136275 | 115633 | 24181 | 4074287 | 1089824 |
| 7 | Fextralife | 3301867485 | 147885 | 68795 | 18985 | 508816 | 425468 |
| 8 | loTyler1 | 2928356940 | 122490 | 89387 | 22381 | 3530767 | 951730 |
| 9 | Anomaly | 2865429915 | 92880 | 125408 | 12377 | 2607076 | 1532689 |
| 10 | TimTheTatman | 2834436990 | 108780 | 142067 | 25664 | 5265659 | 1244341 |
| 11 | LIRIK | 2832930285 | 128490 | 89170 | 21739 | 2666382 | 199077 |
| 12 | Riot Games (riotgames) | 2674646715 | 80820 | 639375 | 20960 | 4487489 | 497678 |
| 13 | Rubius | 2588632635 | 58275 | 240096 | 42948 | 5751354 | 3820532 |
| 14 | auronplay | 2410022550 | 40575 | 170115 | 53986 | 3983847 | 3966525 |
| 15 | MontanaBlack88 | 2408460990 | 67740 | 181600 | 33514 | 2911316 | 1101093 |
| 16 | sodapoppin | 2329440420 | 115305 | 107833 | 19659 | 2786162 | 236169 |
| 17 | 풍월량 (hanryang1125) | 2186662470 | 181230 | 26999 | 12201 | 494445 | 92205 |
| 18 | alanzoka | 2055003870 | 103770 | 89153 | 19560 | 3445134 | 1325075 |
| 19 | CohhCarnage | 2029212570 | 175230 | 43615 | 11343 | 1264808 | 124242 |
| 20 | Lord_Kebun | 1943299035 | 153720 | 34830 | 12367 | 434200 | 137215 |
| 21 | LCK_Korea | 1916365860 | 47325 | 140557 | 39848 | 619382 | 255088 |
| 22 | Castro_1021 | 1845157080 | 100215 | 125133 | 17779 | 2411995 | 550678 |
| 23 | DrDisrespect | 1839882465 | 73065 | 97540 | 23794 | 4450718 | 825004 |
| 24 | TheRealKnossi | 1811696100 | 56010 | 288459 | 24595 | 1260160 | 1082039 |
| 25 | TheGrefg | 1757406750 | 54855 | 538444 | 28887 | 3795667 | 3593081 |
| 26 | YoDa | 1690237110 | 135675 | 123796 | 12868 | 1792625 | 383130 |
| 27 | Pestily | 1659741015 | 138300 | 168112 | 8481 | 616168 | 520342 |
| 28 | 한동숙 (handongsuk) | 1621667925 | 127815 | 44976 | 12869 | 385250 | 73602 |

| | Channel | Watch time(Minutes) | Stream time(minutes) | Peak viewers | Average viewers | Followers | Followe gain |
|----|----------------|------------------------|-------------------------|-----------------|--------------------|-----------|-----------------|
| 29 | GamesDoneQuick | 1619144100 | 87450 | 234826 | 6734 | 1724316 | 113469 |
| 30 | Solary | 1546597380 | 486510 | 24470 | 3187 | 493207 | 143569 |

```
In [74]: g = sns.catplot(x = "Channel", y = "Peak viewers", \
                        kind = "bar", data = twitch3)
g.fig.set_size_inches(18,6)
plt.xticks(rotation=45)

plt.xlabel("Channel")
plt.ylabel("Peak Viewers")
plt.title("Peak Viewers for Top Twitch Streamers")
```

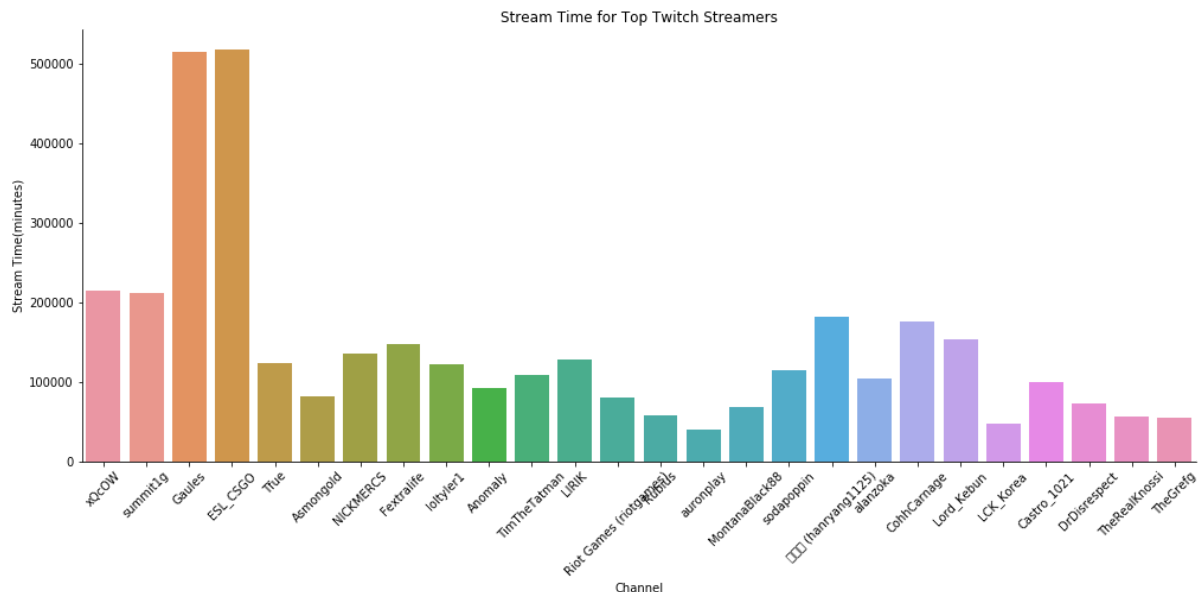
```
Out[74]: Text(0.5,1,'Peak Viewers for Top Twitch Streamers')
```



```
In [75]: g = sns.catplot(x = "Channel", y = "Stream time(minutes)", \
                        kind = "bar", data = twitch3)
g.fig.set_size_inches(18,6)
plt.xticks(rotation=45)

plt.xlabel("Channel")
plt.ylabel("Stream Time(minutes)")
plt.title("Stream Time for Top Twitch Streamers")
```

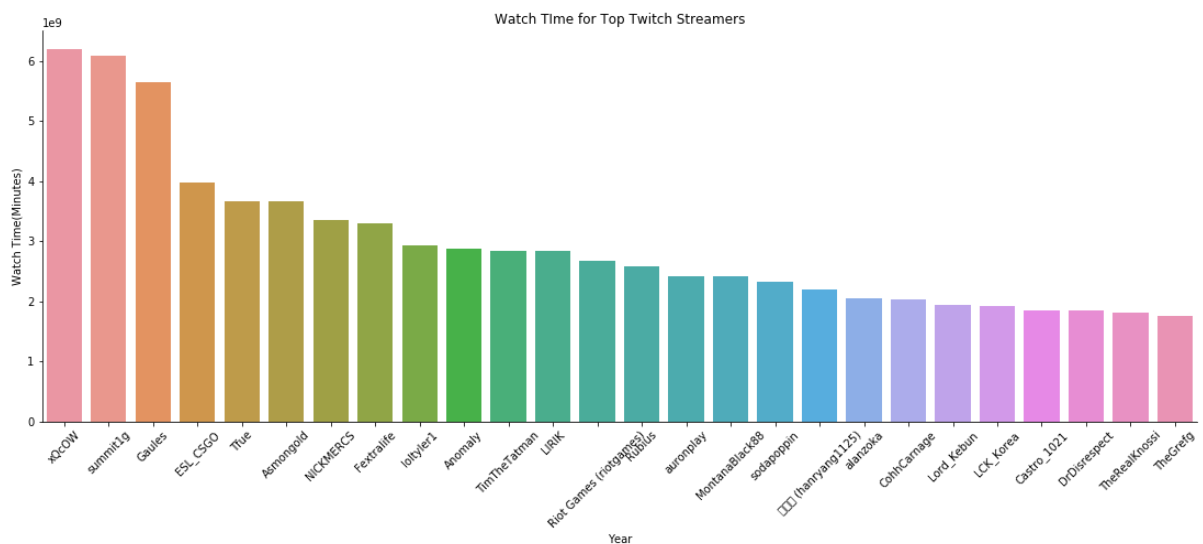
Out[75]: Text(0.5,1,'Stream Time for Top Twitch Streamers')



```
In [76]: g = sns.catplot(x = "Channel", y = "Watch time(Minutes)", \
                        kind = "bar", data = twitch3)
g.fig.set_size_inches(18,6)
plt.xticks(rotation=45)

plt.xlabel("Year")
plt.ylabel("Watch Time(Minutes)")
plt.title("Watch Time for Top Twitch Streamers")
```

Out[76]: Text(0.5,1,'Watch Time for Top Twitch Streamers')



```
In [77]: g = sns.catplot(x = "Channel", y = "Followers", \
                        kind = "bar", data = twitch3)
g.fig.set_size_inches(18,6)
plt.xticks(rotation=45)

plt.xlabel("Channel")
plt.ylabel("# of Followers")
plt.title("Total Followers for Top Twitch Streamers")
```

Out[77]: Text(0.5,1,'Total Followers for Top Twitch Streamers')

