Alonso's plots

Gina Reynolds, March 2020

import numpy as np

import matplotlib.pyplot as plt

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plt.style.use('seaborn')

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import pandas as pd
plt.style.use('seaborn')
total_cases = pd.read_csv("https://covid.ourworldindata.org/data/total_case")
```

```
        import numpy as np
        france
        Italy

        import matplotlib.pyplot as plt
        date
        2020-03-15
        4469.0
        21157.0

        import pandas as pd
        2020-03-16
        5380.0
        24747.0

        plt.style.use('seaborn')
        2020-03-16
        5380.0
        24747.0

        total_cases = pd.read_csv("https://covid.ourworldindata.org/data/total_casestatal_cases[["France", "Italy"]].tail(3)
        4469.0
        21157.0
```

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import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
plt.style.use('seaborn')

total_cases = pd.read_csv("https://covid.ourworldindata.org/data/total_cas
total_cases[["France", "Italy"]].tail(3)
cases100_France = total_cases.query("France > 100")["France"]
```

	France	Italy
date		
2020-03-15	4469.0	21157.0
2020-03-16	5380.0	24747.0
2020-03-17	6573.0	27980.0

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cases100_France = total_cases.query("France > 100")["France"]
days100_France = np.arange(len(cases100_France))
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total_cases = pd.read_csv("https://covid.ourworldindata.org/data/total_cas
total_cases[["France", "Italy"]].tail(3)
cases100_France = total_cases.query("France > 100")["France"]
days100_France = np.arange(len(cases100_France))
cases100_Italy = total_cases.query("Italy > 100")["Italy"]
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import matplotlib.pyplot as plt
import pandas as pd
plt.style.use('seaborn')

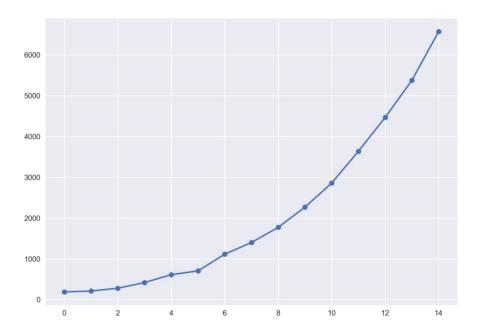
total_cases = pd.read_csv("https://covid.ourworldindata.org/data/total_cas
total_cases[["France", "Italy"]].tail(3)
cases100_France = total_cases.query("France > 100")["France"]
days100_France = np.arange(len(cases100_France))
cases100_Italy = total_cases.query("Italy > 100")["Italy"]
days100_Italy = np.arange(len(cases100_Italy))
```

	France	Italy
date		
2020-03-15	4469.0	21157.0
2020-03-16	5380.0	24747.0
2020-03-17	6573.0	27980.0

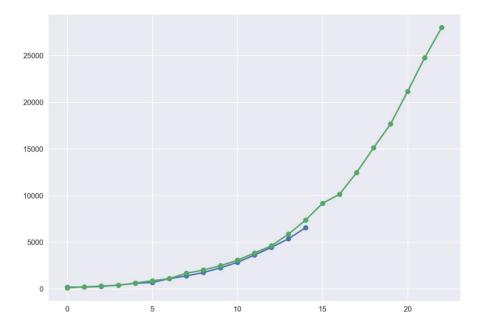
#Plot by Alonso Silva

fig, ax = plt.subplots(figsize = (10,7))

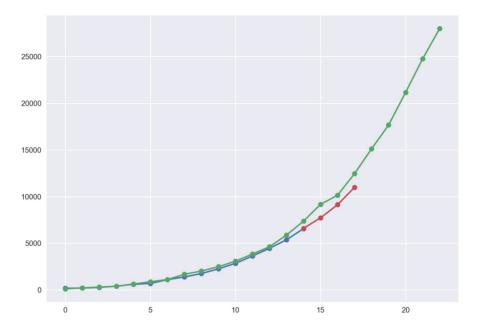
```
#Plot by Alonso Silva
fig, ax = plt.subplots(figsize = (10,7))
plt.plot(days100_France, cases100_France,
    label='France', linewidth = 2, marker='o')
```



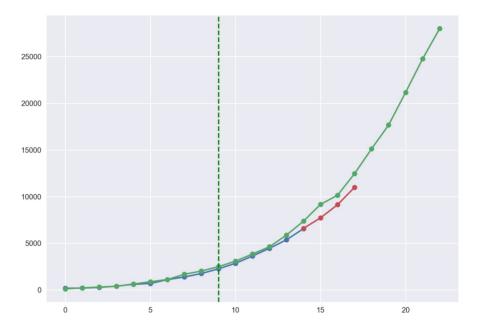
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fig, ax = plt.subplots(figsize = (10,7))
plt.plot(days100_France, cases100_France,
    label='France', linewidth = 2, marker='o')
plt.plot(days100_Italy, cases100_Italy,
    label='Italy', linewidth = 2, marker='o')
```



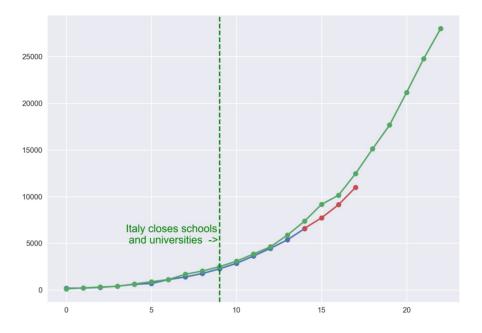
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    label='France', linewidth = 2, marker='o')
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    label='Italy', linewidth = 2, marker='o')
plt.plot(np.array([14, 15, 16, 17]),
    np.array([6604, 7730, 9134, 10995]),
    label='France (ESRI)', linewidth=2, marker='o')
```



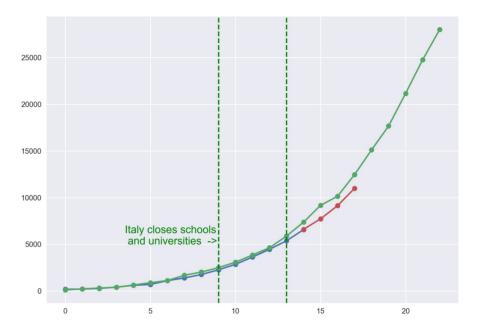
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    label='France (ESRI)', linewidth=2, marker='o')
plt.axvline(9, color='green', linestyle='dashed')
```



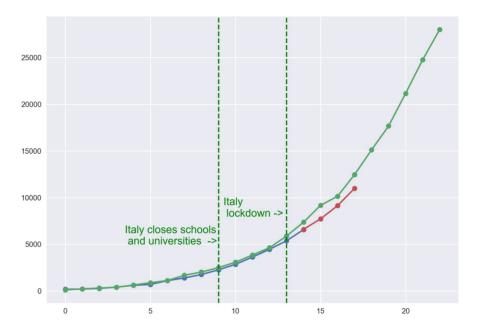
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plt.plot(days100_France, cases100_France,
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    np.array([6604, 7730, 9134, 10995]),
    label='France (ESRI)', linewidth=2, marker='o')
plt.axvline(9, color='green', linestyle='dashed')
plt.annotate('Italy closes schools \n and universities -> ',
    (3.5, 5000.0), color='green', fontsize='x-large')
```



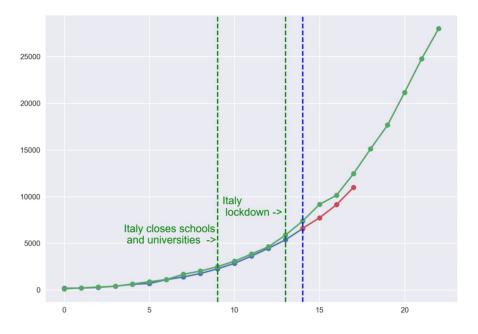
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plt.annotate('Italy closes schools \n and universities -> ',
    (3.5, 5000.0), color='green', fontsize='x-large')
plt.axvline(13, color='green', linestyle='dashed')
```



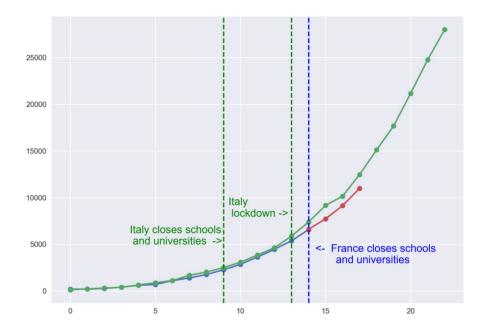
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plt.axvline(13, color='green', linestyle='dashed')
plt.annotate('Italy\n lockdown -> ',
    (9.3, 8000.0), color='green', fontsize='x-large')
```



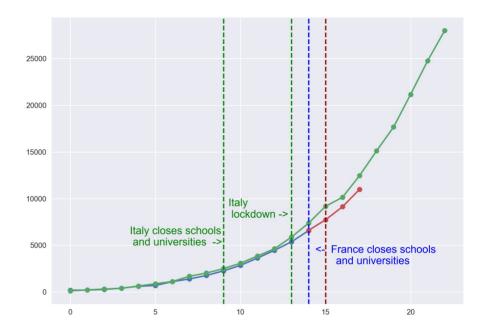
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fig, ax = plt.subplots(figsize = (10,7))
plt.plot(days100 France, cases100 France,
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plt.plot(days100 Italy, cases100 Italy,
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plt.axvline(14, color='blue', linestyle='dashed')
```



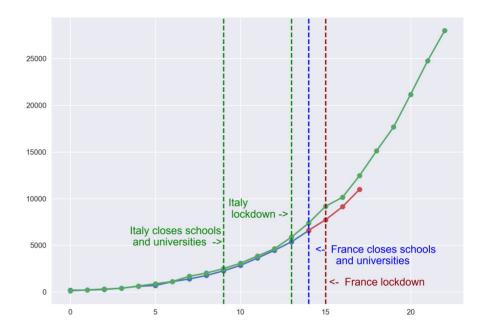
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plt.axvline(14, color='blue', linestyle='dashed')
plt.annotate('<- France closes schools\n</pre>
                                                and universities',
    (14.4, 3000), color='blue', fontsize='x-large')
```



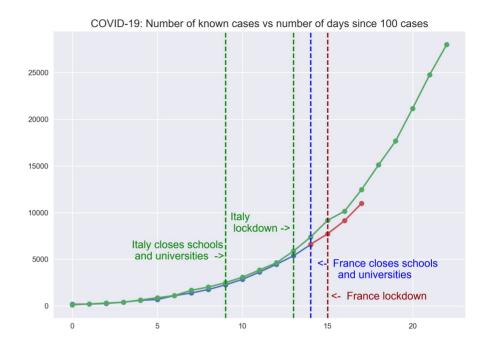
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plt.annotate('<- France closes schools\n</pre>
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    (14.4, 3000), color='blue', fontsize='x-large')
plt.axvline(15, color='darkred', linestyle='dashed')
```



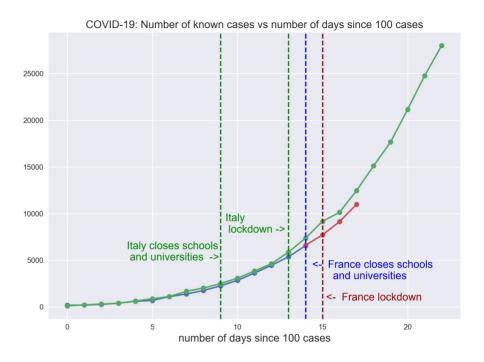
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                                               and universities',
    (14.4, 3000), color='blue', fontsize='x-large')
plt.axvline(15, color='darkred', linestyle='dashed')
plt.annotate('<- France lockdown', (15.2, 700),
    color='darkred', fontsize='x-large')
```



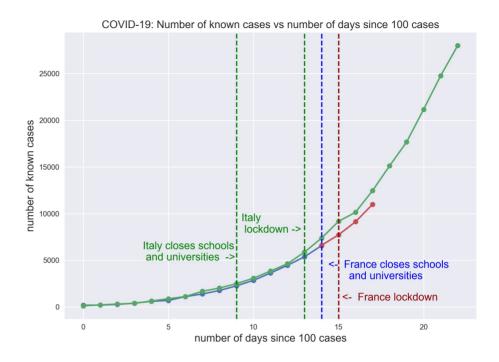
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plt.axvline(15, color='darkred', linestyle='dashed')
plt.annotate('<- France lockdown', (15.2, 700),
   color='darkred', fontsize='x-large')
ax. set title('COVID-19: Number of known cases vs number of days since 100
   fontsize='x-large')
```



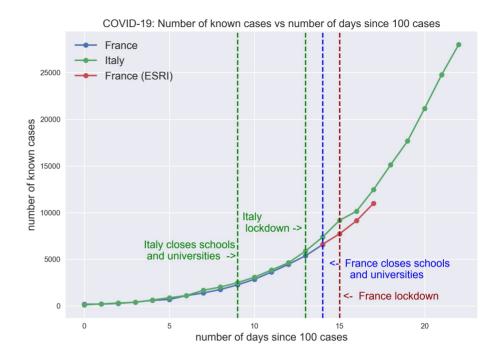
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ax.set xlabel('number of days since 100 cases',
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    color='darkred', fontsize='x-large')
ax. set title('COVID-19: Number of known cases vs number of days since 100
    fontsize='x-large')
ax.set xlabel('number of days since 100 cases',
    fontsize='x-large')
ax.set ylabel('number of known cases', fontsize = 'x-large')
plt.legend(fontsize = 'x-large')
```



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plt.plot(days100 France, cases100 France,
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    fontsize='x-large')
ax.set xlabel('number of days since 100 cases',
    fontsize='x-large')
ax.set_ylabel('number of known cases', fontsize = 'x-large')
plt.legend(fontsize = 'x-large')
plt.yscale("log"); plt.show()
```

