Anaconda and Jupyter

Prerequisite: *Python*

While Jupyter runs code in many programming languages, Python is a requirement (Python 3.3 or greater, or Python 2.7) for installing the Jupyter Notebook.

We recommend using the Anaconda distribution to install Python and Jupyter. We'll go through its installation in the next section.

If you have any other installations of Python on your system we recommend to remove these and run a fresh installation of the Anaconda distribution to avoid the most common occurring failures.

On Mac OS X (choose Python version 2.7)

https://www.continuum.io/downloads#osx

On Windows (choose Python version 2.7)

https://www.continuum.io/downloads#windows

It's Social Computing, we use graphs, a lot of graphs...

In social computing research, we need powerful tools to create, manipulate, and display graphs. Luckily, there is a plethora of tools and libraries for that. We are going to use igraph [http://igraph.org/] which also comes as a Python library [http://igraph.org/python/]. igraph provides rich graph data structures and many out-of-the-box functions to process graphs and calculate different metrics. As mentioned in [http://igraph.org/python/], to install python igraph,

Python igraph:

On Mac OS X
you to run the command:
pip install python-igraph

On Windows:
pip install python-igraph may not work for you!
You will need to install the library from [http://www.lfd.uci.edu/~gohlke/pythonlibs/].
Pick the library suitable for your Python version and your computer architecture. E.g.
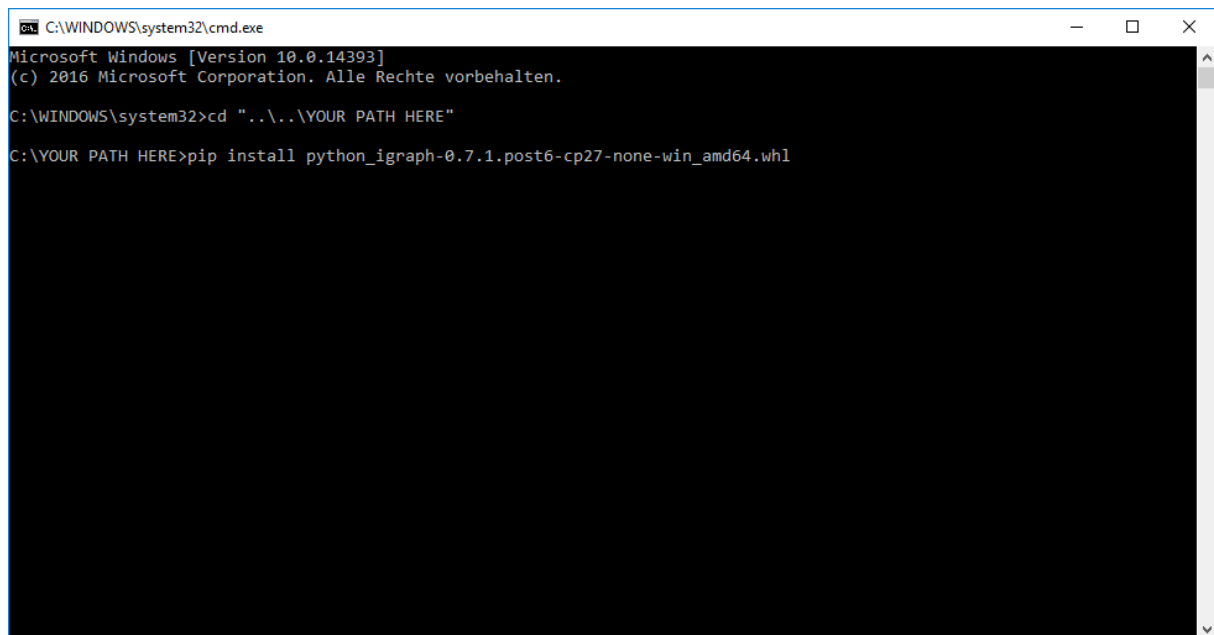python_igraph-0.7.1.post6-cp27-none-win_amd64.whl (this is for Python 2.7 (cp27), and amd 64 bit architecture)
Note: these whl files are run with the pip command

Navigate to the file and run it with

e.g. *pip install python_igraph-0.7.1.post6-cp27-none-win_amd64.whl*

Replace "YOUR PATH HERE" with the path where your file is saved.

```
C:\WINDOWS\system32\cmd.exe                                                    —   □   ✕

Microsoft Windows [Version 10.0.14393]
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C:\WINDOWS\system32>cd "..\..\YOUR PATH HERE"

C:\YOUR PATH HERE>pip install python_igraph-0.7.1.post6-cp27-none-win_amd64.whl
```

Useful tutorial for students: http://igraph.org/python/doc/tutorial/tutorial.html

Python cairo:

Note: to enable igraph plotting functionality in IPython Notebook, you need to install the graphics library: Cairo [http://cairographics.org/] and PyCairo (or Py2Cairo depending on the Python version you use) [http://cairographics.org/pycairo/resources/].

If you have Cairo or py2cairo already installed we recommend that you remove it and install it again (otherwise you might get the exception: 'python-plotting-not-available')

For Mac OS X: the easiest way to install PyCairo is through homebrew [http://brew.sh/].

- First install homebrew using the command: /usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
- run the command:
  brew install py2cairo

For Windows:

- You already have package installers you can download from the website [https://cairographics.org/pycairo/resources/] But they are for **win32**
- If you are running and **64bit** machine, you can use unofficial installers from here [http://www.lfd.uci.edu/~gohlke/pythonlibs/]:
  Install the following library: pycairo-1.10.0-cp27-none-win_amd64.whl
  Note: cp27 stands for python 2.7 (so pick the version relevant to your Python)

  Note: these whl files are run with the pip command

  Navigate to the file and run it with:

  e.g *pip install pycairo-1.10.0-cp27-none-win_amd64.whl*