Social Information Retrieval Experiment & Exercise

Fact Pack for Homework Assignment #1

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Homework Assignment #1

Due: **27.05. 23.59 CEST**

1. **Read background literature**
   - Oeldorf-Hirsch et al.: To Search or to Ask: The Routing of Information Needs Between Traditional Search Engines and Social Networks (CSCW '14)
   - Nagpal et al.: Friends, Romans, Countrymen: Lend Me Your URLs. Using Social Chatter to Personalize Web Search (CSCW '12)
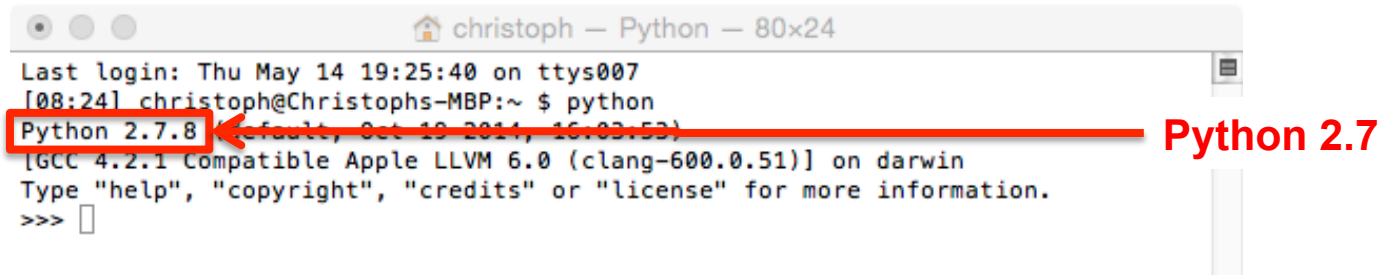2. **Create personal account** in web system and **upload photo** (it seems that you have managed at least the first part when you can read this)
3. **Random networks**
   - Install Python (2.7) and the igraph library on your computer
   - Create a python script that
     1. Generates a random network with 100 nodes following the Watts-Strogatz approach (you're allowed to use igraph)
     2. Calculates the betweenness centrality value for each node and assigns it to the respective node as attribute
     3. Saves the graph in graphml format
   - Display the graph and graphically indicate the betweenness centrality (e.g. using Cytoscape or Gephi, but feel free to use any other tool)
   - Upload the python code and a screenshot of the visualization

PYTHON

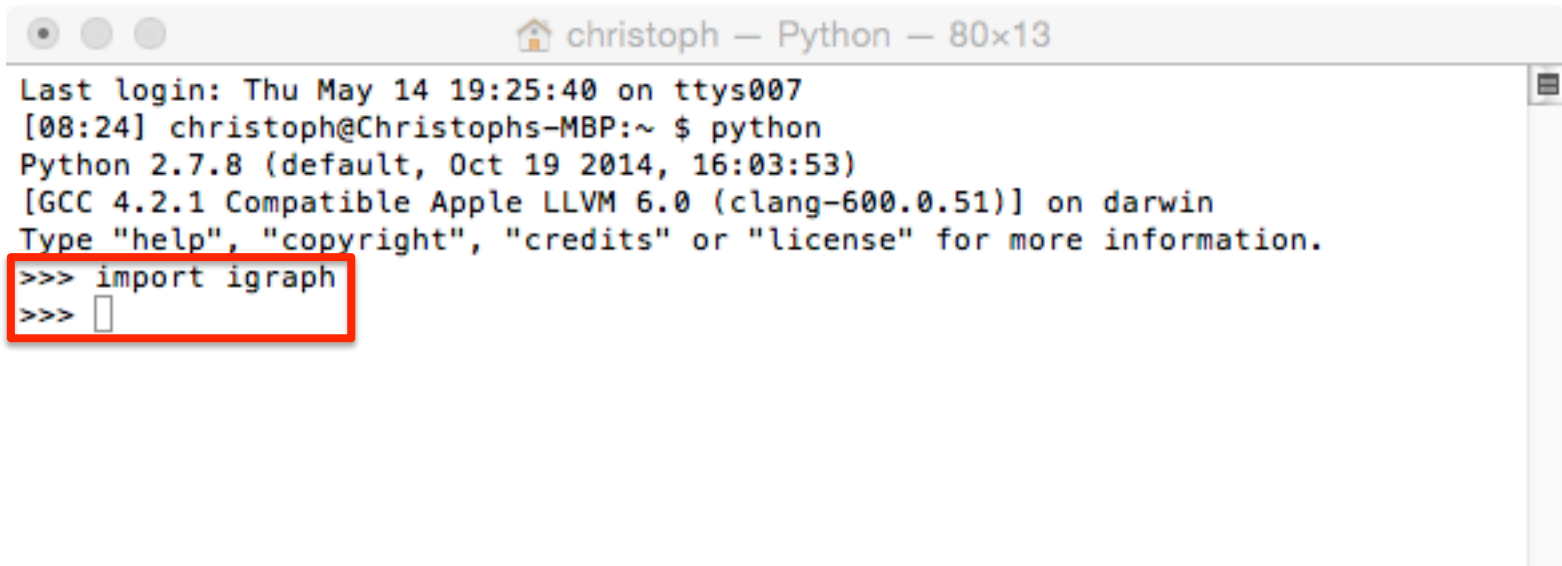- Open a shell terminal (cmd.exe on Windows) and type "python"

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Last login: Thu May 14 19:25:40 on ttys007
[08:24] christoph@Christophs-MBP:~ $ python
Python 2.7.8                                                              Python 2.7
[GCC 4.2.1 Compatible Apple LLVM 6.0 (clang-600.0.51)] on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

- Where to get Python?
  - https://www.python.org/downloads/windows/
  - https://www.python.org/downloads/mac-osx/ (of not already installed)
  - apt-get install python2.7 (e.g., Ubuntu)

IGRAPH

- Where to get the igraph library?
  - http://igraph.org/python/ (also via pip)

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● ● ●                 christoph — Python — 80×13

Last login: Thu May 14 19:25:40 on ttys007
[08:24] christoph@Christophs-MBP:~ $ python
Python 2.7.8 (default, Oct 19 2014, 16:03:53)
[GCC 4.2.1 Compatible Apple LLVM 6.0 (clang-600.0.51)] on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>> import igraph
>>>
```