

# Becoming a Computational Communication Scholar

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**</Computational>**  
Communication Science Lab

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Pre-Conference: Expanding Computational Communication: Towards a Pipeline for Graduate Students and Early Career Scholars

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## Today

- Some General Steps
- Personal Notes
- Short autobiographical research
- Challenges
- Moving on

## Computational Communication Scholars work with...

big data analytics, computer simulations, social network analysis, text mining, computer-assisted content analysis, machine learning, large-scale experiments, cognitive modeling, web and mobile analytics, and data visualization,...

## Step 1

Check your motivation and define your focus



Photo by Janko Ferlic from Pexels

## Step 2

Develop your skills



Photo by Christina Morillo from Pexels

## Step 3

Make sure you have the  
right environment  
and support.



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## Step 4

Develop your network,  
share and show your work



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**SPSS®**  
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The specific search string used to obtain newspaper articles on immigration issues was: discrim! OR (haat w/5 aanzet) OR inburgering! OR (scholing or (cursus! OR les! OR onderwijs) w/10 (immi! OR alloch! OR asiel! OR buiten!)) OR taalcur! OR taalles! OR taalonderw! OR gezinsherenig! OR schijnhuw! OR nephuw! OR uithuw! OR immig! OR alloch! OR multicult! OR (verpaup! AND (buurt! or wijk!)) OR moslim! OR uitgeproc! OR verblijfs! OR (grondwet w/10 artikel 7) C (bruid! AND buitenland) OR (inkomenseis w/20 trouw! OR asielzoeker! OR vluchteling! OR (generaal pardon) OR p

**Stata/IC 11.1 - [Results]**

File Edit Data Graphics Statistics User Window Help

Review Command

**STATA (R)**  
Statistics/Data Analysis 11.1

Copyright 2009 StataCorp  
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800-STATA-PC 979-696-4600 979-696-4601

single-user stata perpetual license:  
Serial number: 30110578014  
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Notes:

1. (/m# option or -set memory-) 10.00 MB allocated
2. New update available; type `-update all-`





```
{
  "name": "Python",
  "type": "python",
  "request": "launch",
  "stopOnEntry": true,
  "pythonPath": "${config:python.pythonPath}",
  "program": "${file}",
  "cwd": "${workspaceFolder}",
  "env": {},
  "envFile": "${workspaceFolder}",
  "debugOptions": [
    "WaitOnAbnormalExit",
    "WaitOnNormalExit",
    "RedirectOutput"
  ]
}
```

```
scraper_0813.py x
1 from bs4 import BeautifulSoup
2 from compiler.ast import flatten
3 import os
4 import urllib2
5 import time
6 import numpy as np
7 import csv
8 os.chdir("/Users/binfang/Documents/NYCDSA/project/Project_3")
9 # Scrape returned search results
10 webpage = []
11 ls = []
12 miss = []
13 webpage = []
14 zipcode = 98101
15 def pkg_url(page):
16     return "http://www.carfax.com/vehicles/Used--" + str(zipcode) + "/page-" + page
17
18 pg_num = 1
19 while pg_num <= 19:
20     url = pkg_url(str(pg_num))
21     print url
22     read = urllib2.urlopen(url).read()
23     soup = BeautifulSoup(read, "lxml")
24     flag = ""
25     match1 = soup.find_all("div", {"class": "basic-detail"})
26     ls = []
27     for div in match1:
28         href = div.find("a", {"class": "j-singlepage"}).get("href")
29         if href:
30             ls += ["http://www.carfax.com" + href]
31             #print ls[-1]
32     flag = flag + href
33     if len(flag) > 0:
34         pg_num += 1
35     # Scrape each web link
36     str1 = "Price:"
37     str2 = "Mileage:"
38     str3 = "Location:"
```







## A PhD Project and some background notes

Multilingual  
Computer-Assisted  
Content Analysis

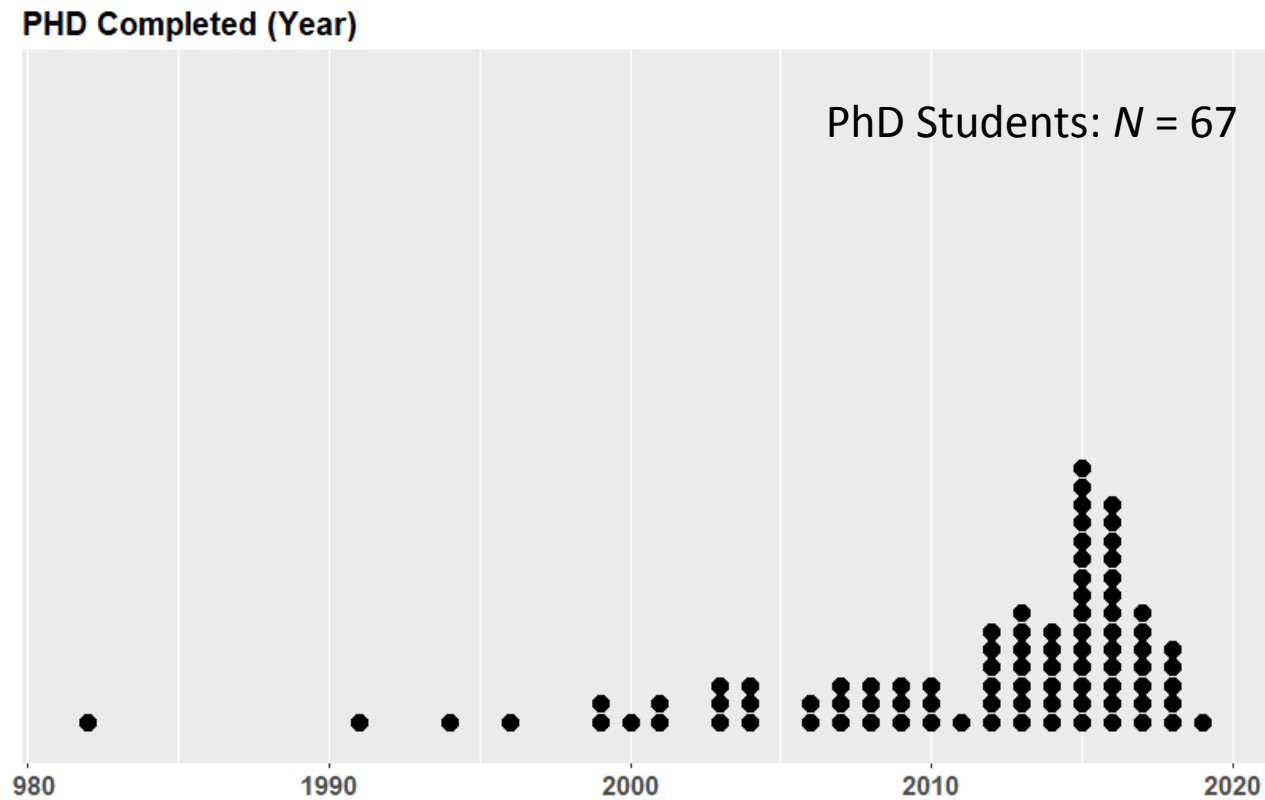


## Small autobiographical research:

- Computational Methods Interest Group, ICA 2019: Chairs, Discussants, and Participants ->  $N = 212$
- Google search with name, affiliation, country (based on ICA program)
- $N = 181$  with public available CV/linked in profile/university websites

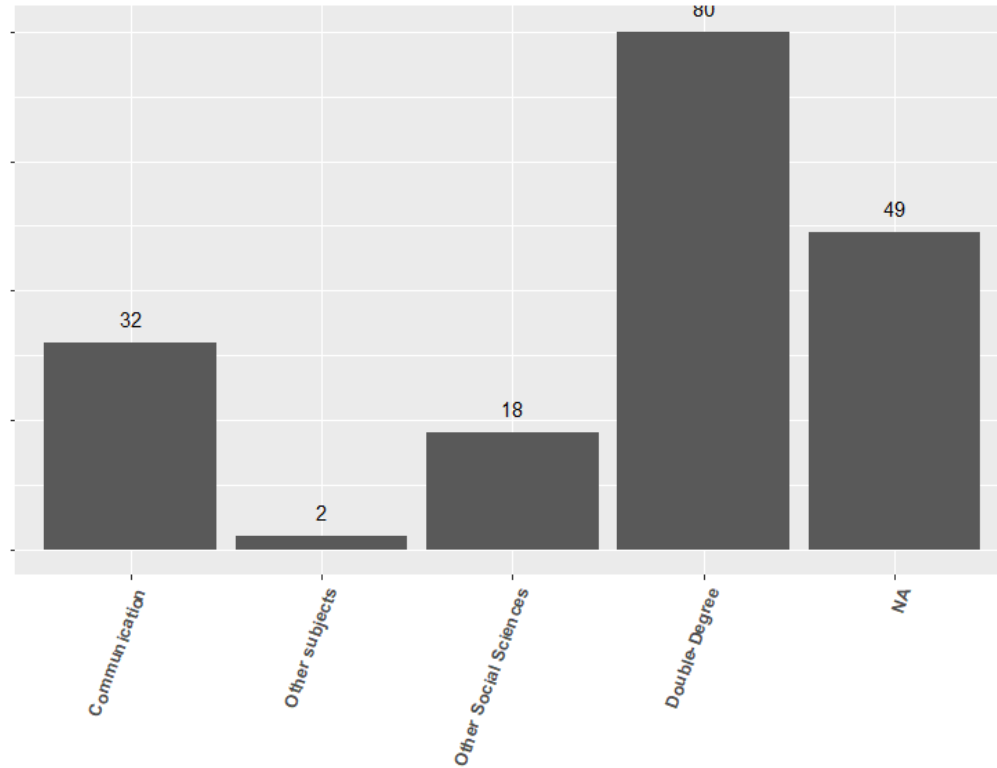


## A young field

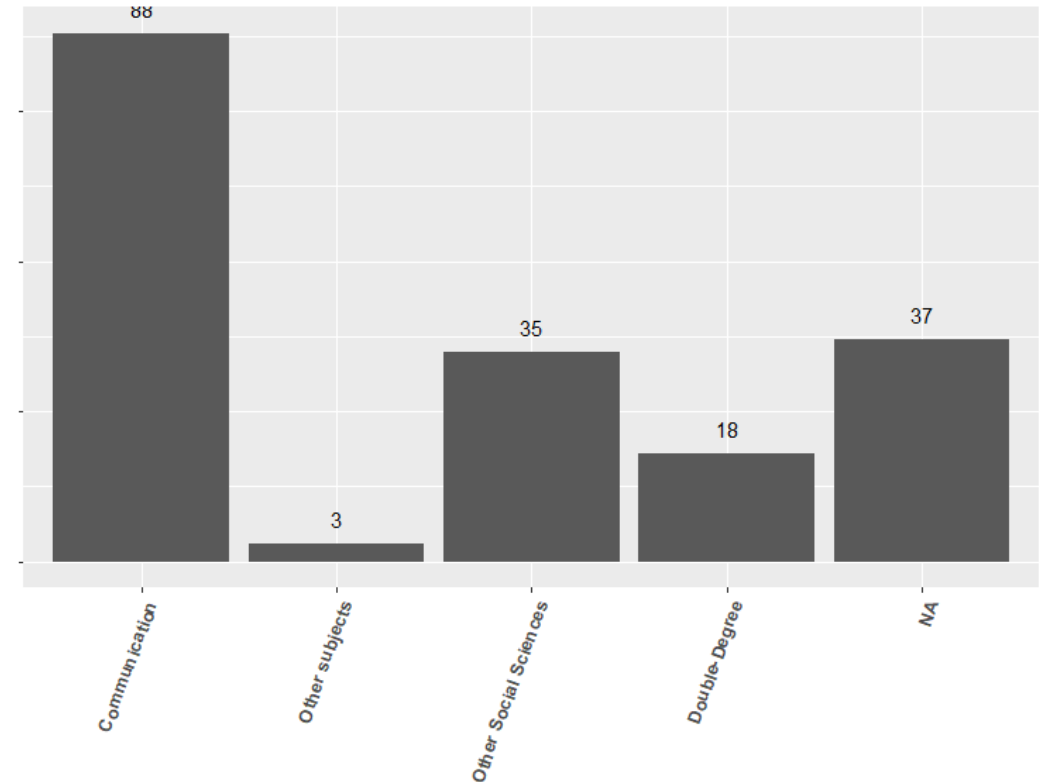


## Bachelor/Master Degrees: An interdisciplinary field, but strong focus on communication

Discipline of Bachelor/Master Degree



Discipline of PhD Degree



# Challenges for ‘Becoming a Computational Communication Scholars’

- Infrastructure
- Interdisciplinary Collaborations
- Skills
- Accessibility of datasets
- Communication with the field

# Opportunities

In academia and beyond

## ASSISTANT PROFESSOR IN COMPUTATIONAL COMMUNICATION

We seek applicants with expertise in one or more of the following areas :

- Computational social science
- Data science
- Social algorithms and artificial intelligence
- Web science research methods

## PH.D. POSITION IN COMPUTATIONAL COMMUNICATION SCIENCE



## Data engineer: The 'real' sexiest job of the 21st century

As the hype around data scientists fails to meet expectations, perhaps it's time data engineer took the title as the "sexiest job of the 21st century"



Speaking at the Gartner Data & Analytics Summit 2019, London, Nick Heudecker, VP Analyst, Gartner, stated: "Data scientists just remind me of a bunch of frustrated weather forecasters."



## Moving on

- ICA 2019 Computational Methods Program
- Sharing resources for 'Becoming a Computational Communication Scholar' (summer schools, online courses, conferences, ...)

<https://urlzs.com/FBTMv>



# Thank you for your attention!

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## References and More on the Topic

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# Images

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