Academic Affiliations amongst Philosophy Departments

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ABSTRACT

The prestige of an academic institution may be determined as a function of affiliations with other academic institutions. Using digital tools to data-scrape, data-mine, and perform network analysis on university websites, an approximation of numbers of academic affiliations may be measured. Especially observing the alma mater institutions of the faculty of employed institutions, these numbers show the relative employment of alumni and a proxy metric for the relative prestige of their degree-granting institutions. These affiliations can be charted and graphed to determine the distributions of affiliations throughout an academic ecosystem from which we might draw conclusions about that system's hierarchies and inequalities. Here we use anglophone PhD-granting philosophy departments as a case study for this methodology with tentative conclusions.

INTRODUCTION

Different academic institutions have different amounts of institutional prestige. University of Houston has more institutional prestige than Houston Community College. But just how is prestige distributed across academia?

Many have attempted to assess and analyze the relative prestige of academic institutions. Some news organizations like USnews and Forbes have yearly studies based on a variety of factors combined to produce a concise listing of the academies ("National University Ranking"; "America's Top College List"). Some organizations including the MLA and other independent research groups keep running reports on the job placements of college graduates by program (MLA; Colander et al., 2015). These ranking systems incorporate different factors as proxies of institutional prestige. For instance, the USnews website lists over ten factors going into their academic ranking ("National University Ranking"). But something that USNews and others leave out is the metric of "academic affiliation", the degree of connection between institutions in the academic network, more specifically the frequency with which PhD graduates of academic institutions are hired as professors by other academic institutions. Arguably, academic affiliation, via the intermural hiring process, is the primary process by which academic prestige is distributed, since it implicitly involves the granting and receiving of prestige between academic institutions in the form of human capital (Menand, 2010). This is as much as to say, how academic an academy may be is determined by how academic other academies consider it. Doctors beget doctors, engineers beget engineers, professors beget

professors. In the academic sense, academies are only as good as other academies say they are. Thus, in theory, the prestige of an academic institution should be roughly determinable through the proxy of frequency of academic affiliation with other academic institutions.

In what follows here, we attempt to use digital tools of data-scraping, data-mining, and network analysis on university websites to make an approximation of numbers of academic affiliations amongst anglophone PhD-granting philosophy departments, use those metrics to infer institutional prestige, and use the distribution of institutional prestige to make some claims about the academic community.

METHODOLOGY

Summary

The number of outgoing and incoming affiliations of a university was determined by taking a survey of university websites. "Affiliations" were the designated unit of measurement, defined as an instance of occurrence of the name of an academic institution on the website of another academic institution. (These represented a cross-reference between institutions just as a URL link represents a cross-reference between websites.) Thus, each affiliation was comprised of two components: 1) the "source", the outgoing affiliation, the academic institution from which the affiliation points; and 2) the "target", the incoming affiliation, the academic institution to which the affiliation points. The amount of "targets" of any given institution shows the relative attention that institution receives amidst other institutions.

Procedure

Breaking the process down into detailed methodology, the following steps were followed:

1. A list of anglophone PhD-granting philosophy departments and their website URLs was compiled from "APA Grad Guide Search Results".
2. A list of departmental faculty members (full and associate professors) and their directory sub-URLs was compiled from each departmental website.
3. A list of alma mater institutions was compiled from each faculty directory website sub-URL.
4. A query was run to produce a "Target/Source" list, where each "Target" was a institution at which a given faculty member works and each "Source" the a institution from which that faculty member received their doctorate
5. A query was run to produce a "Count/Rank" list, where each "Count" was the raw cardinal number of times a degree-granting institution in the data was cited and where "Rank" was the ordinal ranking of the count from greatest to least.

6. The "Target/Source" text file was input into a Gephi network graph and an "Academic Affiliations Network" file was produced.
7. The "Count/Rank" text file was input into an Excel bar graph and an "Academic Affiliations Distribution" file was produced.

Scope

These steps were conducted across a scope of targets and sources. The targets were determined from a range of 123 anglophone PhD-granting Philosophy Programs selected from the APA Grad Guide list ("APA Grad Guide Search Results"). This scope was chosen for three main reasons:

- There is a small (thus achievable) number of PhD-granting philosophy programs.
- Philosophy as a discipline is internally interested in critically analyzing the hierarchy/inequality of social distributions.
- Philosophy is the first academic discipline and therefore a natural first focus of our study (which can and may expand outward to encompass more disciplines given continued resources and interest).

Tools

The digital tools used were Python Selenium for data-scraping, Microsoft Access for data-mining, and Gephi and Microsoft Excel for Network Analysis.

Errors

Many errors (both random and systematic) affected the fidelity of the results. These errors included, but were surely not limited to:

- Missing affiliations: Some online academic profiles lacked affiliation information. This is estimated to be as much as 10% of all profiles, but we can reasonably assume the missing information was random (thus representative) and therefore not significantly skewing of results.
- Multiple affiliations: Some online academic profiles had more than one academic affiliation. This was a vanishingly small number and therefore vanishingly skewing..
- Ambiguous labels: Some academic affiliations had ambiguous labels corresponding to more than one academic institution. These cases were mostly resolved using educated guesses, and might skew results relating to ambiguously named institutions, but not others.
- Mis-processing: The data-collection, data-cleaning, and data-analyzing steps may have introduced manual or automated errors into the data set.

RESULTS

The steps above produced results reflective of the academic affiliations of institutional websites (The results are shown in the following tables in Appendix A: Tables and figures in Appendix B: Figures).

- "Table 1: Academic Affiliation Sources/Targets (Selected)" lists the academic affiliations of institutions in terms of target institution and source institution. Each instance in the table represents an instance of a target institution documented from a source institution source website, each source/target relation representing one "academic affiliation".
- "Table 2: Academic Affiliation Counts/Ranks (Top Twenty-Five)" lists institutions in order of academic affiliation count and rank. Using the "Targets/Sources" table, the number of affiliations of which an institution was a target was counted to product a "target count".
- "Table 3: Academic Affiliation Ranks (Selected)" lists institutions in order of academic affiliation rank. Using the "Target Count" table, the number of affiliations of which an institution was a target was arranged in order to produce an algorithmic rank. These results were then compared to the Forbes rank from the Forbes website to produce a rank difference, by which the results might be compared against the Forbes study.
- "Figure 1: Academic Affiliation Networks" shows the network of institutions according to their academic affiliations. The nodes represent institutions and the edges represent academic affiliations. Those institutions with smaller numbers of affiliations were smaller nodes; those institutions with larger numbers of affiliations were larger nodes.
- "Figure 2: Academic Affiliation Distribution" shows the pareto distribution of institutions according to their academic affiliations. The x-axis represents different academic institutions and the y-axis represents numbers of "target affiliations" of those given institutions. Those institutions with higher numbers of affiliations had taller bars in the chart while those institutions with lower numbers of affiliations had shorter bars in the chart. The resulting curve indicates academic inequality: a linear curve would indicate a very egalitarian academic community, a steeply indented curve would indicate an unequal academic community.

DISCUSSION

At least two interesting conclusions can be drawn from these results:

Academic Affiliations are Proxies for Institutional Prestige

The metric of "academic affiliation" is a valid proxy of institutional prestige in as much as it is consistent with other metrics of prestige. Those institutions with large/small numbers of affiliation "targets" have large amounts of academic prestige. This can be deduced from the results in two ways:

Firstly, the results are consistent with our common knowledge expectations about the relative prestige of universities. Princeton and other Ivy League universities have a strong affiliated lead whereas on average state schools tend to be middling to less affiliated.

Secondly, and more importantly, the rankings of institutions in one study can be compared to the rankings produced by another study, for example those offered by academic rankings organizations like forbes.com, etc. ("America's Top College List"). The results of academic affiliation are shown to be relatively consistent with the results of at least one other study such that academic affiliation is a valid proxy of institutional prestige at least in the minimal sense that it can reproduce the results of other studies of institutional prestige. Although the exact relative ranking varies, the margin of error is relatively low over all (Table 3).

Academic Affiliation Distributions are Unequal (not Unexpectedly)

The distribution of prestige amongst academic institutions is steeply unequal. The academic affiliation distribution has a high Gini inequality coefficient: ~0.7/1.0 (Gini). This can be compared with the distribution of wealth in the American economy with has a relatively lower Gini inequality coefficient: ~0.5/1.0 (census.gov). This is the pattern that one would expect for the peak of a social distribution (Pareto, 1898), to the extent that philosophy PhDs are a demographic at the peak of performance in their field. This further suggests that, like other unequal market systems, academia is not immune to differentially distributing socioeconomic forces (Menand, 2010). This all can be observed visually from the stark shape of the rankings curve (Figure 2).

INTERPRETATIONS

There are at least three ways of interpreting the academic prestige inequalities here observed:

Accepting

First, we can accept some level as inequality academic prestige as inevitable and/or justifiable. The inevitability might come naturally due to the noise in any ungoverned system. Only a completely totalitarian system might maintain perfect equality. The justification might come by assigning the university title as a proxy for merit. Under such an explanation, the inequality of prestige between universities is real but roughly maps onto the merit of the alumni. High merit alumni tend to hire high merit alumni in a feedback loop. Thus, academic prestige is justifiable because it, at least roughly maps onto a justifiable metric.

Rejecting

Second, we can reject the inequality of academic prestige as unjustifiable. The inequality is unjustifiable because the prestige of the title of the alma mater does not confer a normatively relevant metric upon the alumni. Rather, the academic prestige of the title is a prejudice of a sort—like

racism, sexism, classism, etc.. Perhaps we can call this process “academism”. Then the prejudice compounds do to the network effects at play amongst institutions. Higher prestige institutions gain higher prestige faculty; lower prestige institutions gain lower prestige faculty. This effect creates inflated and deflated prestige pockets that have no direct bearing upon the normative factors that they purport to represent.

Accepting and Rejecting

Third, we might both accept and reject academic prestige to some extent. In such an explanation, some level of academic inequality is inevitable and/or justifiable, but some level is unacceptable. Some combinatory view like this is probably the most reasonable disposition to have towards such observed inequalities.

CONCLUSION

These results are interesting for their implications for how to think about prestige economies in general and those of academic institutions in particular. How the academy thinks about its own processes of student admissions, faculty hiring, and university funding might be reassessed according to the concept of academic affiliation and its association with prestige. Further studies of this kind discovering the network patterns amongst academic institutions could be carried out both to extend the breadth (the types of academic programs: history, biology, etc.) and depth (the levels of academic programs: associate programs, bachelor’s programs, master’s programs, etc.) of the scope, such that academic affiliations could be a more thoroughly and comprehensively studied and applied subject.

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APPENDIX A: TABLES

Table 1: Selected Academic Affiliation Sources/Targets (Selected)

Table 2: Academic Affiliation Target Counts (Top Twenty-Five)

Table 3:Academic Affiliation Rank (Selected)

APPENDIX B: FIGURES

Figure 1: Academic Affiliation Network

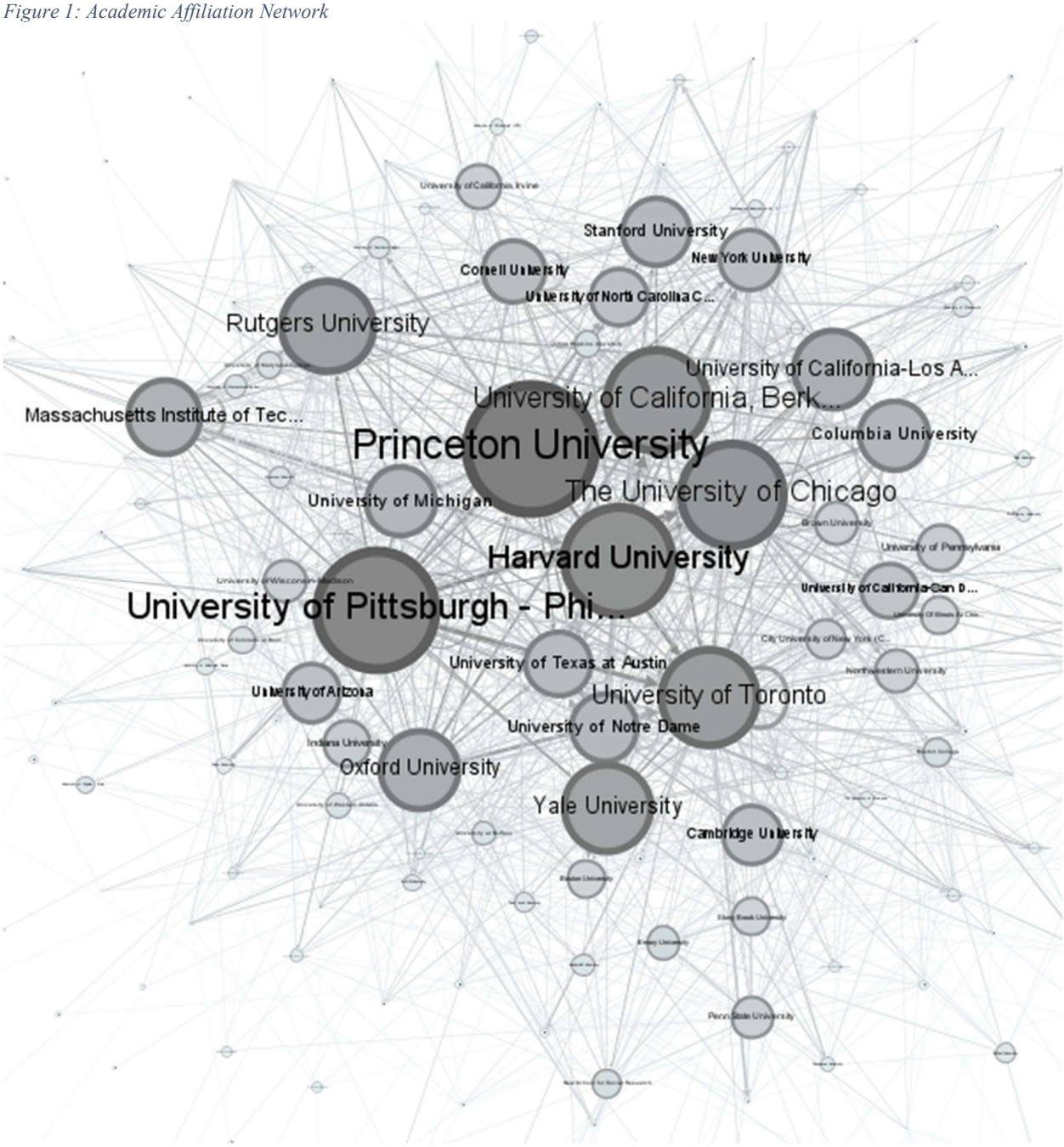

Figure 2: Academic Affiliation Distribution

REFERENCES