The Role & Rule of Rankings

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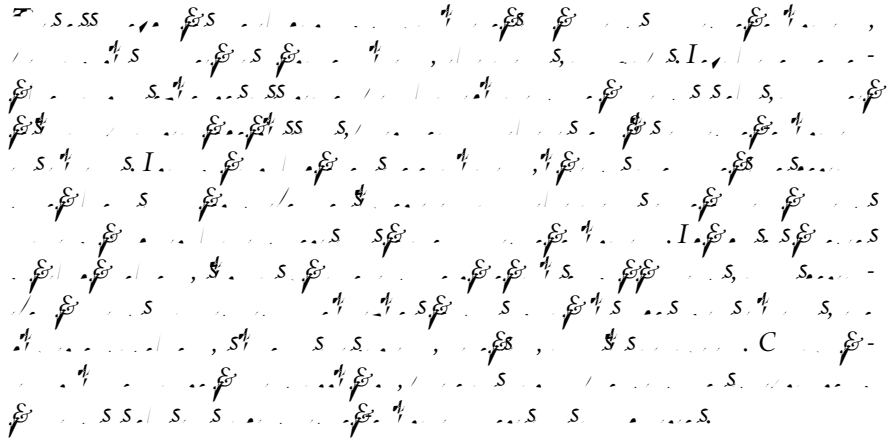

Individuals and organizations use university rankings for various purposes. Prospective students and their parents often use them to determine which university to attend, while higher-education institutions use them as a benchmarking tool to evaluate their relative performance in comparison to other colleges and universities. Employers may use university rankings to identify top institutions or departments for recruitment purposes.[1] For media outlets, university rankings generate interest and increase readership. Government officials use university rankings to inform policymaking decisions related to higher education. Finally, there are those who watch them as a spectator sport.

These rankings, however, have several fundamental flaws and limitations that make them an unreliable and subjective tool for evaluating universities. This is a consequence of their methodologies, in which narrow and quantifiable metrics, such as research output and reputation surveys, are emphasized while other criteria like teaching quality are often disregarded.[2] The ranking often fails to accurately reflect the quality and diversity of a university's programs, faculty, and students.

As a result, rankings can perpetuate unequal distribution of resources and opportunities as prestigious and large institutions with greater resources often perform better in the rankings than newer or underfunded institutions. At the same time, rankings might also inflate the quality of a university's program.[3] When the

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rankings are used to allocate funds or create programs – or cut existing programs and defund certain disciplines – significant issues emerge.

On the one hand, policymakers may find rankings useful to identify areas of strength and weakness in a country's higher-education system, which can inform

al ranking, the United States has its own prominent university ranking list, the [illegible] Best Colleges Rankings (U.S. News).[8]

As a result of the different methodologies used by each ranking, there are clear differences in their respective outcomes. While the top 20 institutions are more or less the same in each table, with relatively small variations, the disparities become increasingly pronounced beyond the top 50. For example, in 2022, the University of Minnesota, my alma mater, ranked 44th by ARWU, 86th by THE, and 186th by QS! This drastic discrepancy, from 44th in the world to 186th, illustrates the impact of the specific criteria and methodologies used by each ranking system.

What methodologies do these tables use? At the time of writing this essay, THE evaluates a university based on thirteen performance indicators that measure a university's research productivity, teaching, citations, international outlook, and industry income. It is important to note that the methodology of THE has been significantly updated for its 2024 lists to ensure it accurately represents the outputs of the diverse range of research-intensive universities worldwide, both presently and in the future.[9] QS determines its world rankings based on six performance indicators: academic reputation (40 percent), citations per faculty (20 percent), faculty-student ratio (20 percent), employer reputation (10 percent), international student ratio (5 percent), and international faculty ratio (5 percent). Much like THE, QS has introduced more transparency for its 2024 rankings, implementing its largest methodological enhancement so far, introducing three new metrics: sustainability, employment outcomes, and international research network.[10] ARWU evaluates universities based on six performance indicators that are grouped into four categories: quality of education, quality of faculty, research performance, and per capita performance.

In the United States, U.S. News evaluates universities based on seventeen key measures across the following categories: graduation and retention rates, social mobility, graduation rate performance, undergraduate academic reputation, faculty resources, student selectivity, financial resources per student, average alumni giving rate, and graduate indebtedness. The weight of each indicator varies, with graduation and retention rates receiving the highest weight at 22 percent and alumni giving rate receiving the lowest weight at 3 percent. It is important to recognize that the categories used in these rankings are self-reported, which means the institutions provide the data that the ranking organization uses to assign their positions on the list. In another significant update, the latest iteration of U.S. News has introduced new metrics encompassing measures of first-generation college student success, postgraduation earnings compared to those of high school graduates, and a heightened emphasis on graduation rates among students receiving federal Pell Grants. It has also eliminated five metrics from its methodology, including class sizes and alumni giving, while preserving others like the peer survey.[11]

More rankings systems are available to stakeholders, some of which rank institutions as a whole, while others focus on specific areas. For example, the National Taiwan University (NTU) World University Rankings sort universities based on their position in the "Performance Ranking of Scientific Papers for World Universities," which evaluates productivity, impact, and excellence in research. In 2023, NTU listed the top ten universities as: 1) Harvard, 2) Stanford, 3) University College London, 4) University of Oxford, 5) University of Toronto, 6) Johns Hopkins, 7) University of Washington, Seattle, 8) MIT, 9) University of Cambridge, and 10) University of Michigan, Ann Arbor.

Similarly, University Ranking by Academic Performance (URAP), produced by the Middle East Technical University in Türkiye, ranks universities based on their performance in research and academic productivity. Their top ten universities in 2023 were: 1) Harvard, 2) University of Toronto, 3) University College London, 4) University of Oxford, 5) Tsinghua University, 6) Stanford, 7) Zhejiang University, 8) Université Paris Cité, 9) Shanghai Jiao Tong University, and 10) Johns Hopkins.

The Leiden Rankings in the Netherlands focus on the scientific impact of universities as measured by bibliometric indicators, such as the number of publications, citations, and collaboration networks.[12] U-Multirank, produced by the European Commission and several European higher-education associations, allows users to compare universities on a variety of indicators, including teaching, research, and international orientation.[13] Universitas Indonesia's GreenMetric ranking, in operation since 2010, measures the environmental sustainability performance of universities around the world.[14] Webometrics, published by the Spanish National Research Council, ranks universities based on their online presence and impact.[15] The Washington Monthly College Rankings evaluate colleges in the United States based on their contribution to the public good in three areas: producing research, promoting social mobility, and encouraging public service.[16]

The SCImago Institutions Rankings (SIR) rate academic and research institutions based on their research performance, innovation outputs, and societal impact.[17] SIR groups institutions by country and sector, and their ranking is based on a five-year period. Their list includes various indicators such as normalized impact, excellence with leadership, output, scientific leadership, international collaboration, patents, and societal impact. As it also includes companies and government institutions, it is not surprising to see a list that starts with a university followed by a company (for example, in the 2023 overall rankings, the Chinese Academy of Sciences holds the top spot, with Harvard ranking 4th, Google at 5th, Microsoft at 20th, and MIT at 31st).

Academic Influence provides university rankings on its website using a unique methodology that distinguishes them from others.[18] They use machine learning to collect and analyze open-source data from publicly available sources like Wikipedia, Crossref, and Semantic Scholar. They argue that their rankings are objective

and enable university leaders to focus on certain areas that are beneficial to students. On the other hand, methodologies and criteria used by ranking systems are

upon to make important decisions, the more likely it is to become distorted and unreliable. There are various reasons why this could happen, such as manipulation and other corrupt practices to achieve a desired outcome, or simply because the metric becomes less useful or relevant over time as conditions change.

For many institutions, placing high in the rankings is one of the most important goals, because an undetermined but possible large portion of their revenue depends on their performance in the ranking leagues. The significant impact of rankings on the reputation and perceived quality of an institution has become such an important aspect of the global higher-education landscape that universities and higher-education systems around the world have become increasingly focused on improving their rankings, with some resorting to gaming the system by finding ways to manipulate the ranking criteria in their favor.

This tactic comes with serious consequences, both for institutions and ranking organizations, but also for the larger higher-education community, such as the broader network or ecosystem of institutions, organizations, professionals, students, policymakers, and stakeholders involved in higher education. Institutions engaging in such tactics risk losing funding, damaging their reputation, and facing long-term consequences such as a decline in the quality of education offered and difficulty attracting top students and faculty. While these actions undermine the integrity of institutions, and lead to a lack of trust in the reliability of universities, they also reduce confidence in higher education's overall trustworthiness.

A recent scandal at Columbia University highlights the question of the trustworthiness of university rankings. A mathematics professor accused the university of submitting false statistics to U.S. News rankings, resulting in a significant drop in the university's ranking. Columbia acknowledged the errors and pledged to improve. This raises the concern that if a highly prestigious institution like Columbia felt the need to submit false data, what does this say about the trustworthiness of rankings for other, less scrutinized universities?

The answer is straightforward: as long as rankings remain significant, there will always be attempts to manipulate the system. The success of these attempts will vary depending on the type of manipulation. There have been – and, unfortunately, will continue to be – instances in which universities are accused or found guilty of corrupt practices that manipulate their rankings. Some may resort to "buying citations" from highly cited researchers, while others may falsify student selectivity data, or overstate GPA and enrollment data.[25] These examples emphasize the need for transparent and reliable ranking methods, as well as regular audits and checks to guarantee the accuracy of data used in these rankings.

Overall, it is important for universities to approach the ranking process with integrity. Universities need to prioritize the ethical reporting of data, and the ranking op(anking op.1 z3 Tc 0.03blsithhouldve beeMCID 6-19.9 of) 11 01 1 r

tors in decision-making (and underlines the need for multiple sources of information, as well as a more nuanced approach to evaluation), it is the ranking organizations and universities' combined responsibility to prevent such efforts to game the system.[26]

It is evident that current major university rankings favor certain types of institutions over others. Universities lacking certain facilities or departments, especially those without medical schools, face a significant disadvantage in traditional rankings. At this time, health-related research is the largest global field of science and accounts for about one-third of all publications, and rankings give considerable weight to the number of publications.[27]

Nevertheless, there is strong evidence that universities focusing on specific areas of study can still achieve success in those areas, even with lower rankings in standard evaluations. For instance, Wageningen University & Research in the Netherlands has been consistently named the world's most sustainable university by UI GreenMetric since 2017, and University of California, Davis, holds the top spot among U.S. institutions in the same evaluation, ranking fifth in the world. This pattern offers a different starting point for considering rankings from a constructive perspective.

Since rankings are an integral part of the higher-education sector, and because they will in all likelihood maintain their importance for the foreseeable future, efforts to ignore rankings or replace them with alternative evaluation methods will probably not succeed in the short term. While we cannot completely eliminate rankings – nor should we necessarily endeavor to do so, as there are areas in which they have positively impacted higher education – we can work toward improving their diversity and reliability.

Improving university rankings is not an easy task. It requires a combined effort of universities, ranking organizations, and, to some extent, governments. One solution would be to diversify the ranking criteria by including highly important but often disregarded factors such as student experience, service for the public good, diversity of campuses, and public engagement efforts. Rankings should also aim to represent the experiences of different constituents (in other words, students, faculty, staff, and perhaps even the community members outside of those on campus). For greater fairness and precision, rankings should concentrate on particular elements of educational institutions, rather than providing a blanket approach and drawing generalized conclusions.

A shift toward more specialized rankings that focus on individual areas instead of the entire institution could level the playing field and allow for a more informed and comprehensive assessment, eliminating certain advantages held by established institutions in the English-speaking world and showcasing unique strengths in areas that have not been previously emphasized. This approach could

lead to a more informed and dynamic understanding of higher-education institutions, and help drive improvements in transparency and outcomes.

Furthermore, rankings can (and should!) use the measure proposed by Wendy Fischman and Howard Gardner called Higher Education Capital (HEDCAP), which

It would be interesting to explore this further and see how it can be done in a fair and unbiased manner.

A comprehensive ranking system that takes into account not just the academic achievements, but also the values and practices that the university promotes, such as democratic values and open-mindedness, can be quite useful for stakeholders. Measuring democratic values on a campus might be challenging as it can vary greatly across different countries. What is considered a minor comment in the United States might be a reason for termination in Türkiye – or even a more serious outcome in China. Hence, finding a universal "common denominator" for democracy on campus that is not biased toward a specific country would be difficult.

In the future, I envision university rankings that are more tailored to specific areas and needs. These rankings will be narrower in scope but provide greater detail within their focus area. This will be beneficial for both students and higher-education institutions, as it will allow institutions to experiment and excel in specific areas, and create a more level playing field in terms of competition. Because the current system of rankings is often criticized for being too broad and not highlighting institutions' unique strengths in particular areas, a more specialized ranking system that reflects the diversity of institutions and, above all, meets the needs of a diverse body of students would provide a more accurate picture of each institution's strengths and weaknesses.

University rankings have become a common tool in higher education, used by various stakeholders for a range of purposes. Despite their undeniable popularity, they are often criticized for their reliance on narrow, quantifiable metrics and their inability to capture essential elements of higher education such as service, teaching, and public good mission. Despite the criticisms, university rankings continue to play a significant role for decision-making and resource allocation for government officials, as well as marketing purposes for university administrators. University rankings may be useful tools for institutions to measure their perceived prestige and reputation; however, they do not always provide students and parents with a complete picture of what a college or university can offer. Factors such as class size and retention rates can be important considerations when selecting a school, but they do not necessarily reflect the quality of education that students will receive – or their overall experience at the institution.

There is a clear need to improve the diversity and reliability of university rankings. This can be accomplished through a concerted effort between universities, ranking organizations, and governments, and by moving toward the creation of specialized rankings that consider a wider range of criteria beyond traditional metrics. Nontraditional metrics, such as public engagement, student satisfaction, diversity, and sustainability might offer a more comprehensive and nuanced understanding of higher-education institutions. In light of these potential improve-

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