Rockefeller University ranked first after expansion of CWTS Leiden Ranking

Rockefeller University, a private university located in New York, is ranked first in the CWTS Leiden Ranking 2014 (www.leidenranking.com). Of the 750 universities included in the ranking, Rockefeller has the highest percentage of frequently cited publications. Rockefeller is a relatively small university in terms of publication output. Because of this, it was not included in previous editions of the Leiden Ranking. In the 2014 edition, the number of universities included in the ranking has been increased from 500 to 750 and a number of smaller institutions, among which Rockefeller, have been added to the ranking. Rockefeller is ranked above MIT, Harvard, UC Berkeley, and Stanford, which occupy positions 2 to 5 in the ranking. Like in earlier years, the top 50 universities with the highest percentage of frequently cited publications is strongly dominated by US institutions, with just a few non-US institutions. These non-US institutions are from the UK, Switzerland, and Israel.

Expanded ranking offers improved global coverage of universities

The CWTS Leiden Ranking 2014 includes the 750 universities worldwide with the largest number of publications in international scientific journals covered by the Web of Science database. These universities are located in 49 different countries. Compared with last year’s ranking, Estonia, Hungary, Lebanon, Slovakia, and Tunisia are new in the 2014 edition. With 166 universities, the US contributes most universities to the Leiden Ranking. China is ranked second, with 83 universities. Europe as a whole contributes 288 universities. Brazil, India, and Iran, which are often seen as upcoming nations in science, each contribute around 15 universities. The citation impact of these universities is low, usually far below the worldwide average level. Russia contributes just one university to the 2014 edition of the Leiden Ranking.

Advanced methodology

The CWTS Leiden Ranking differs from other university rankings by focusing exclusively on measuring citation impact and scientific collaboration. The bibliometric methodology of the Leiden Ranking is considerably more advanced compared with other rankings. For instance, publications outside the international scientific literature (e.g., in non-English language journals or in popular magazines) are excluded because they could distort citation statistics. Publications that have been withdrawn, for instance because of scientific misconduct, are excluded as well. The Leiden Ranking also carefully corrects for differences between scientific fields in citation and collaboration practices. Other rankings do not perform such corrections or they do so in a less accurate way. Because of this, these
rankings may be biased in favor of universities active in certain fields of science. In addition to overall statistics, the Leiden Ranking also provides statistics at the level of seven broad fields of science. These fields have been defined algorithmically in a unique bottom-up fashion based on millions of citation relations between publications in the Web of Science database.

**Comparison with other university rankings**

Compared with other global university rankings, the world top in the CWTS Leiden Ranking is dominated more heavily by the US. This is caused by the strict focus of the Leiden Ranking on citation impact. Both the Times Higher Education ranking and the Shanghai Ranking combine other aspects of the performance of universities in a composite indicator, such as teaching and attracting external funding. The top list is therefore more diverse in these rankings, even though the US is still dominant. British universities have a stronger position in the Times Higher Education ranking due to the reputation of established universities which is measured through a survey. In the Shanghai Ranking, larger and older universities are advantaged over smaller and more recently established universities. Through its strict focus on the citation impact of recent research, the Leiden Ranking is less influenced by performance in the distant past than other global rankings.

**Rankings require careful interpretation**

Despite the advanced methodology of the CWTS Leiden Ranking, a careful interpretation of the ranking remains essential. For instance, Rockefeller University has the highest percentage of frequently cited publications, but looking at the absolute number of frequently cited publications Rockefeller turns out to be a relatively small player that appears around position 300 in the ranking. The university with the largest absolute number of frequently cited publications is Harvard, which has more than twice as many frequently cited publications as Stanford, the university that is ranked second in absolute terms. Furthermore, like any ranking, the Leiden Ranking is sensitive to all kinds of methodological choices. Improvements that have been made to the methodology of the 2014 edition of the ranking have for instance caused many Chinese universities to decrease in the ranking. Finally, it is important to be aware that citation impact does not necessarily coincide with actual scientific impact. There are for instance indications that the citation impact of some universities is influenced by ‘cartels’ of scientists who frequently cite each other for inappropriate reasons.

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