Ranking of World Universities on the Web

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Introduction

The Web is the new medium for academic and scientific communication. Web indicators are now becoming important in the quantitative analysis of science, but a global scenario involving the major universities and research institutions is still to be developed. To fill this gap, efforts parallel to bibliometric rankings are being made to order universities based on Web presence indicators. We therefore designed a combined assessment model for ranking the institutional domains of 9330 universities with independent Web presence. Size and visibility of these institutional domains were assessed.

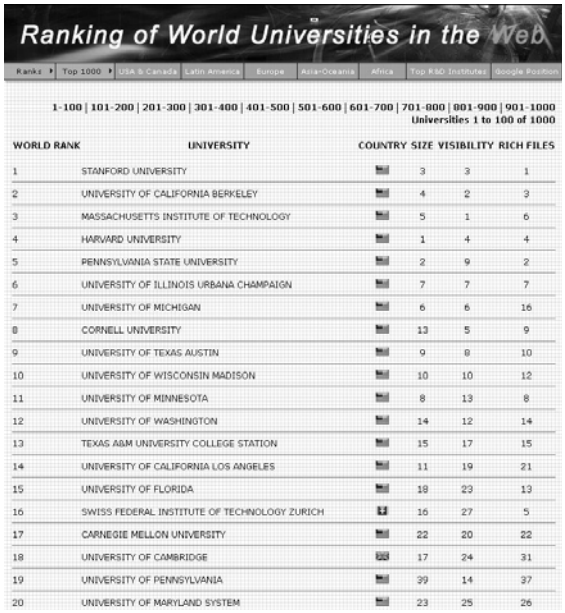

Figure 1: Top 20 universities in the world ranking

Methodology

Data were collected using the major search engines: Google, Yahoo Search, MSN Search and Teoma. About web indicators, size was obtained as the sum of the web pages for each institution detected by the four previous search engines; this minimizes the effect of the particular characteristics and crawling schedules of each robot. Visibility can be only determined using the MSN Search and Yahoo Search engines; it was defined as the sum of the external inlinks to the domains. The number rich files according to Google were also considered as the downloadable files in advanced formats such as Adobe Acrobat - pdf, PostScript - ps, MS Word - doc, MS Powerpoint - ppt and MS Excel – xls are clearly linked to specific academic and scientific activities.

Table 1. National distribution by number of universities:

COUNTRIES	Top 100	Top 200	Top 500
USA	66	104	208
Canada	7	16	26
Germany	5	21	52
United Kingdom	5	12	37
Sweden	3	7	13
Norway	3	3	4
Australia	2	7	19
Switzerland	2	5	7
Finland	2	2	8
Austria	2	2	8
Netherlands	1	6	8
Brazil	1	2	6
Mexico	1	1	3
Italy		2	13
France		2	10
Belgium		2	6
Czech Rep.		2	4
Spain		1	18
Japan		1	4
Israel		1	3
Countries represented	13	21	42

Results

The sampled universities were ranked according to their Size (S), Visibility (V) and Rich Files (R) values. A final ranking was then produced after weighting the results as follows: S=2, V=4, R=1. The full results are available from "Ranking of World Universities on the Web" (http://www.webometrics.info), where the first 1,000 universities are listed according to the criteria described. Preliminary analysis shows that most productive research-oriented universities are among the leaders in the list. Unexpected results include better rankings for large universities in developing

countries, relevant improvement in the positions of technological-oriented institutions and striking results for French and Japanese institutions.

By continent, North American universities account for a 73% of the universities in the Top 100, but this percentage decreases up to 43% of the first 1,000 universities. European universities show an opposite behaviour, only a 23% in the Top 100 versus a 38% in the Top 1,000. A similar pattern appears for Asia-Oceania, 2% to 10%, and Latin America that improves from a 2% in the Top 100 to 7% for Top 1,000. Only 5 African universities appear in the ranking.

The extracted data in this study are highly valuable to describe the presence of the academic domain in the Web and we hope this ranking will help to compare the activities and performance of universities worldwide.

Other current contents includes global statistics for countries over the world, Google visibility of the universities of the OECD countries cTLD, usage statistics of visitors, and a special section in Spanish for Latin American countries and Spain.

"Ranking of World Universities on the Web" will be updated every four months, and in the future, we will show a temporal evolution of academic domains and the use of additional indicators, including non-webometrics indicators.

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References

Internet Lab, CINDOC-CSIC (2005). Ranking of World Universities on the Web. Retrieved April 25, 2005 from http://www.webometrics.info/