Workshop 2: Higher education: Type and ranking of higher education establishments

Session 1: Main question - Main issues

Peter van der Hijden: Typology and ranking of higher education establishments

The European Commission speakers will address the work on new transparency instruments in the context of the wider reforms in higher education, notably the Bologna process and the Lisbon Strategy for Growth and Jobs. Modern universities need to diversify on the basis of their strengths in order to better fulfil their own missions and serve society. Not all institutions can provide the same mix of education, research and services. The diverse missions and performances of our universities should be made transparent to all stakeholders. More transparency will allow students to make informed choices on where and what to study. More transparency would also serve university management and policymakers at all levels.

Speakers will refer to several transparency initiatives carried out with EU (Erasmus) grant support. These initiatives, in the fields of data collection, quality assurance, classification, ranking and learning outcomes, could ultimately lead to the development of an alternative university ranking system, which should be independent (like a consortium of NGOs), comprehensive (covering diverse university missions such as education, research, innovation, community outreach and internationalisation) and global (covering universities in other continents as well). The French Presidency conference in Paris will help to identify the core elements of such a new ranking system.
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Session 2 : State of the art

Jean-François Dhainaut : Vers une typologie des universités françaises

Résultat d'une longue histoire, le système universitaire français se caractérise par la coexistence d'établissements aux profils très divers: universités pluridisciplinaires, universités scientifiques et médicales, universités de sciences humaines et sociales. Une telle diversité rend vaine toute tentative de classement linéaire.

Or, il est essentiel, tant pour les étudiants que pour les financeurs publics ou privés, de pouvoir caractériser chaque établissement et de se livrer, chacun selon ses objectifs, à des comparaisons pertinentes.

Pour répondre à ce besoin, nous avons établi, en dehors de toute préoccupation qualitative, une première cartographie typologique des universités françaises, qui permet d'identifier, autour de chaque université, un groupe d'établissements dont les caractéristiques sont proches et à l'intérieur duquel les comparaisons deviennent possibles. Cette typologie repose sur d'une dizaine d'indicateurs d'activités concernant les étudiants, les enseignants, les formations dispensées et la recherche.

Lorsqu'elle aura été complétée par une analyse comparative intégrant des indicateurs de performance, souvent disciplinaire, sur la formation et la recherche, cette typologie sera non seulement une aide pour les futurs étudiants et les financeurs, mais aussi un outil, d'une part d'évaluation et d'autre part, de gouvernance pour les équipes dirigeantes.

N.C. Liu: Academic Ranking of World Universities: an Introduction

Many top Chinese universities have set up their strategic goals as world-class universities. What are the positions of top Chinese universities in the world? In order to find out the gap between top Chinese universities and world-class universities, the Graduate School of Education, Shanghai Jiao Tong University (hereafter called the ARWU Group) has tried to rank research universities in the world by their academic or research performance based on internationally comparable third-party data that everyone could check, no subjective measures have been taken. It has been done independently by the ARWU Group for their academic interests. It has nothing to do
with any commercial activities.
Upon the request of many colleagues from different countries, the ARWU Group decided to publish its ranking on the web (http://ed.sjtu.edu.cn/ranking.htm) as the Academic Ranking of World Universities (ARWU) in June 2003. Since then, the ARWU Group has received numerous requests to provide the ranking of world universities by broad subject fields/schools/colleges or by subject fields/programs/departments. In response to the numerous requests received, the ARWU Group has ranked world universities by broad subject fields (ARWU-FIELD) and published on its website in February 2007.

In ARWU, institutions are ranked according to their academic or research performance, ranking indicators include alumni of an institution winning Nobel Prizes and Fields Medals (10% weight), staff of an institution winning Nobel Prizes and Fields Medals (20% weight), Highly Cited Researchers in twenty-one broad subject categories (20% weight), articles published in Nature and Science (20% weight), articles indexed in Science Citation Index-Expanded and Social Science Citation Index (20% weight), and per capita performance of an institution (10% weight). The detailed definition of indicators and other related information can be found at our ranking website (http://www.arwu.org).

The ARWU Group has scanned every institution that has any Nobel Laureates, Fields Medals, Highly Cited Researchers, or articles published in Nature or Science. In addition, major universities of every country with significant amount of articles indexed by Science Citation Index-Expanded and Social Science Citation Index are also included. In total, more than two thousand institutions have been scanned, and about 1,200 institutions have been actually ranked. However, only the list of top 500 institutions has been published on the web. Considering the significance of differences in the total score, the ranking results are published in groups of 50 institutions in the range of 100-200 and in groups of 100 institutions in the range of 200-500.

In ARWU-FIELD, institutions are ranked by five broad subject fields, including Natural Sciences and Mathematics, Engineering/Technology and Computer Sciences, Life and Agriculture Sciences, Clinical Medicine and Pharmacy, and Social Sciences. Arts and humanities are not ranked because of the technical difficulties in finding internationally comparable indicators with reliable data. Psychology is not included in the ranking because of its multi-disciplinary characteristics. Two new indicators are introduced; the first is the percentage of articles published in the top 20% journals of each broad subject field; the second is the research expenditures (for engineering ranking only). The list of top 100 universities in each broad subject field has been published.

Although the ARWU Group has ranked research universities in the world by their academic or research performance based on internationally comparable third-party data, there are still many methodological and technical problems. For detailed discussion of problems, please refer to the articles and PowerPoint presentations on our ranking website (http://www.arwu.org). As a matter of fact, the ARWU Group has been working hard to study the problems and improve ARWU. The ARWU Group will provide more diversified rankings of world universities in the future, particularly rankings by different types of universities with different functions, disciplinary characteristics, history, size, and budget etc.

Any ranking is controversial and no ranking is absolutely objective. Nevertheless, university rankings have become popular in almost all major countries in the world. Whether universities and other stakeholders agree with the various ranking systems,
ranking systems clearly are here to stay. The key issue then becomes how to improve ranking systems and how to use ranking results properly. The performance of European universities will be analyzed.

Karine Tremblay: OECD work for an Assessment of Higher Education Learning Outcomes (AHELO)

The OECD launched a feasibility study for an Assessment of Higher Education Learning Outcomes (AHELO). Its overarching goal is to assess whether it is possible to measure what undergraduate degree students know and can do in different types of higher education institutions and countries, in order to provide better information to institutions, governments and other stakeholders.

The presentation will describe the “roadmap” and various strands of work that will be carried out as part of the AHELO feasibility study. First, different types of assessment instruments will be tested and their validity in an international context explored. These include a generic skills strand and a discipline strand – with engineering and economics as likely candidates. For these strands, the feasibility study will aim to test the science of the assessment – whether it is possible to devise an instrument which enables to make reliable statements about the performance of learning in higher education institutions of diverse types, cultural and linguistic contexts – and second, test the practicality of implementation. But for an AHELO to provide a diagnostic tool for improvement at institutional level, it is critical to inform institutions about their strengths, weaknesses and “value-added”. This is a complex task, hence a value-added measurement strand will explore the issue conceptually and methodologically. Finally, a contextual strand will explore the development of contextual indicators and indirect measures of outcomes at institutional level in recognition of the need for a multidimensional approach to higher education quality.
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Session 3: References for action

Gero Federkeil: The Berlin Principals and the Politics of European Ranking

In 2006 the IREG – International Observatory on Ranking and Academic Excellence passed the “Berlin Principles on Rankings of Higher Education Institutions”, a first attempt to establish guidelines for good ranking practice on a global scale. This contribution discusses the impact of the Berlin Principles on the further development of European rankings on the background of the emerging European higher education area.

According to the Berlin principles rankings should “be clear about their purpose and their target groups. Rankings have to be designed with due regard to their purpose. Indicators designed to meet a particular objective or to inform one target group may not be adequate for different purposes or target groups.” The emerging European higher education area will increase the mobility of students and staff. Hence there is a growing demand for transparency about European higher education systems for those groups. European rankings designed to give information for those stakeholders should adapt their methodology in order to give valuable information for those target groups. For both groups field specific information about the performance of higher education institutions is more informative than rankings of whole institutions. Rankings of whole institutions that average results for various fields may be highly misleading for students who want to find information on the subject/programme they want to study as well as for researchers who want to benchmark their own research against other European universities or are looking for partners for co-operation.

Furthermore, rankings should “recognize the diversity of institutions and take the different missions and goals of institutions into account” as well as “specify the linguistic, cultural, economic, and historical contexts of the educational systems being ranked.” This too has implications for European rankings. European higher education is characterised by its high degree of linguistic, educational, and cultural diversity. This has to be taken into account in creating European rankings. Rankings as a market instrument should refer to defined market or products; only institutions that are really comparable with regard to their structures and products or institutions that operate on a common market should be compared in rankings. Furthermore taking into account national differences in structures of higher education and in academic cultures means that European rankings should be multi-dimensional in order to avoid systematic biases and in order to deliver a clear picture of profiles of different European higher education systems.