

**USING WORLD UNIVERSITY RANKING SYSTEMS
TO INFORM AND GUIDE STRATEGIC POLICY AND
DECISION MAKING.**

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Findings and Issues

I have tried to revisit the world university ranking systems from the perspective of a professional planner. The following findings may be observed and questions maybe asked:

- ✓ **The rankings have been widely used, in refrence mostly to final scores and for promotional and reputation purposes.**
- ✓ **They have seldom been used for any comprehensive planning process.**
- ✓ **Individual indicators have played a marginal role and have been most of the time hidden behind final score and the rankings**
- ✓ **There exist regional and national tools to compare and benchmark with peer institutions, but none at the international level**

The rankings cannot fully impact Higher Education policy making, set strategic benchmarks and inform a formal and comprehensive strategic planning process...

unless universities go beyond the overall scores and use the individual indicators at various levels of ranking

Instructions for the use of the ranking and league table systems

RP IREG-6

A PROPOSAL

A 3-step approach

- 1) use the overall ranking scores and the prestigious prize lists of the league tables as a general overview and portal,**
- 2) access directly to the individual indicators of the ranking systems,**
- 3) apply the individual and specific indicators (at the institutional, broad field and subfield levels) to a benchmarking exercise with world peer universities**

Step 1:

The use of the “overall final scores”

International ranking of 6 Canadian research Universities

As based on the overall scores of ten ranking systems
2011-2012

Ranking systems (10 systems)	Montreal	McGill	Toronto	UBC	Alberta	McMaster
ARWU	102-150	64	26	37	102-150	89
THES	104	28	19	22	100	65
QS	137	17	23	51	100	159
WEBOMETRICS	117	75	32	33	62	139
HEEACT	101	36	9	29	73	95
LEIDEN (publications)	110	38	3	26	53	114
SCIMAGO (output)	123	58	8	38	59	139
RATER (Global)	72-73	30	64	218-222	85-87	133-134
URAP (Academic Performance)	95	26	2	21	54	121
RPI (Research Performance Index)	108	61	14	30	71	62

SCOPE AND LIMITS OF THE OVERALL SCORES

- ✓ To be listed among the 17 500 post-secondary institutions or among the 9 500 universities of the world represents indeed a major and prestigious reference. To be listed among the top 200, as it is the case of these 6 Canadian universities, or even better among the top 100 is even more prestigious. No doubt that the final scores of the rankings have multiple influences and impacts.
- ✓ Yet, at the same time, the “overall final scores” on which are based the league tables, represent major methodological problems, introduce biases, are very general and constitute a thin and limited basis to induce a world university benchmarking exercise and a formal and comprehensive global decision making process.

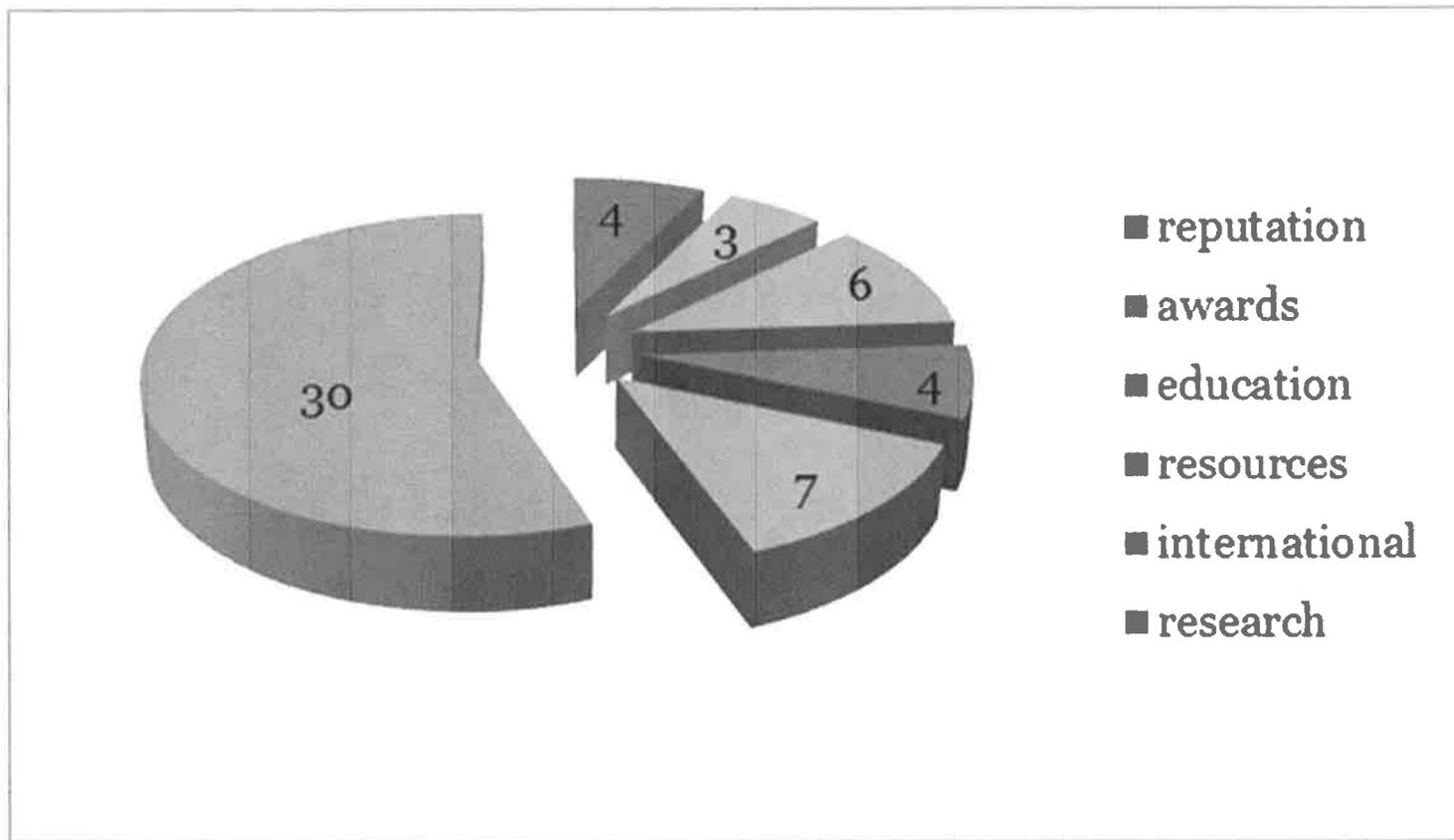
Step 2

**Access to the individual indicators at various levels:
institution, disciplinary fields and subjects**

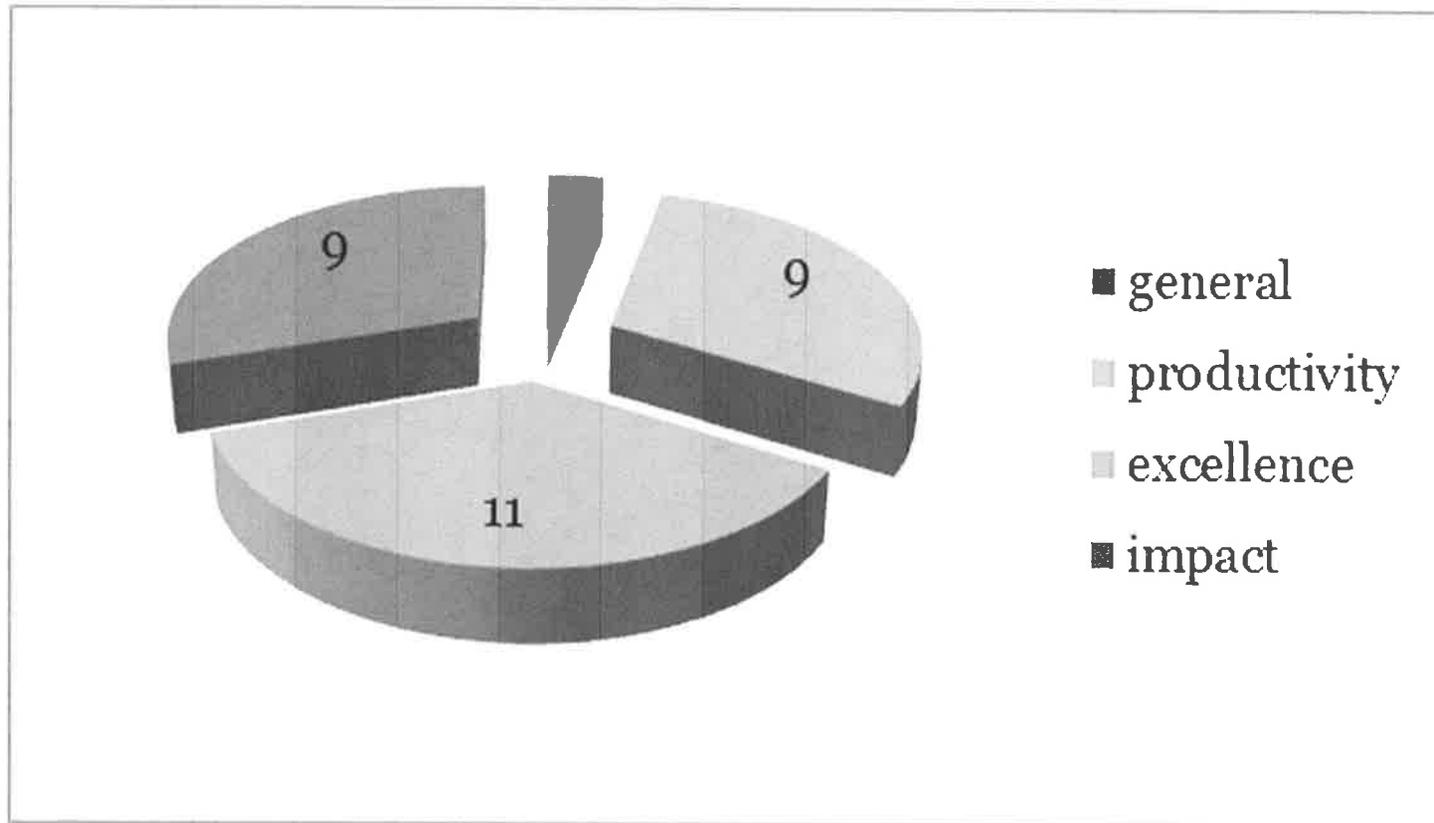
1- Access to the individual indicators at the institutional level

The following graphs provide a complete list of the 54 individual indicators produced by the ten (10) ranking systems and distributed according to six academic dimensions or categories.

List of the indicators (54) used by the ranking systems according to 6 categories



Research indicators (30) according to 4 sub-categories



- ✓ The list of the 54 indicators, as distributed in specific categories, have been designed to allow a particular university to benchmark with world peer universities along each indicator within each category.
- ✓ The template could also be applied, if requested, to various countries, continents, regions: National, World, North American, European, Asian...
- ✓ The purpose being, as an overall result, to propose a **cartographic tool** that would allow a university to define its global strategic position or simply conduct a benchmarking exercise with peer international universities on the basis of selected indicators and according to the strategic intent of the university

- ✓ In encapsulating the rankings with a single composite index and focusing mostly on world “top” universities, the league tables have somehow hidden and concealed the very broad information used for their production or in support of the rankings.
- ✓ We must restore the intrinsic value and individual indicators (Marginson).
- ✓ In this sense, the individual indicators provided by the rankings draw the contours of a worldwide genuine public information system capable of producing a customized ranking “à la carte” of universities (Bourdin Report 2007-2008).

2-Access to the individual indicators to the rankings of disciplinary fields and subjects/subfields

- ✓ Most league table systems have understood the importance of complementing the exercise by ranking also broad disciplinary fields and subjects.
- ✓ Experience in benchmarking and ranking indicates very convincingly that comparing and measuring academic peer groups, nationally or internationally, must go as far as not only comparing institutions at the institutional level, but also **comparing comparable departments and programs.**

An effort must be made, if ever ranking is still relevant and data available, to compare world universities in comparable disciplinary fields with comparable profiles and practices. All major disciplinary fields have specific enrolment and teaching/learning practices, presents specific operational research strategies, have different practices of publication and referencing.

WORLD UNIVERSITY RANKINGS BY DISCIPLINARY BROAD FIELDS AND SUB-FIELDS

Ranking Systems	Broad Fields	Sub-fields
ARWU	5	6
QS	5	52
THES	6	
HEEACT	6	11
URAP	5	
SCIMAGO	4	
RPI	5	

Step 3: informing a decision making process

The world university ranking and league table systems have the possibility of becoming

- ✓ powerful diagnostic tools,
- ✓ effective guides of strategic planning
- ✓ and important devices of globalization for all the universities of the world.

Phase 1: Benchmarking: comparing comparable institutions

- ✓ Benchmarking is commonly used by academic institutions to compare themselves with similar institutions in order to identify their comparative strengths and weakness and set a decision making process.
- ✓ Any benchmarking process related to world universities must be focused on the identification and choice of peer institutions, namely institutions that have the vision, scope, programs and size most comparable. An institution may add to core comparators, institutions that have exemplary programs.

Phase 2: Conducting an Environmental scanning process

An environmental scanning process...

- ✓ provides a detailed report on the major trends and issues affecting Higher Education as a whole and more specifically a particular university, evaluating and diagnosing its strengths and threats and gauging its performance.
- ✓ refers to various dimensions of Higher Education: demographics, economy, student life, resources, research and may be looked at from regional, national and now also international perspectives.
- ✓ Is metrics, data and indicators oriented and its main tool is benchmarking

Decision Making Process
Setting a global intent and direction
based on the rankings' individual indicators



- ✓ As applied to the global rankings...
 - ✓ Benchmarking has been applied regionally, nationally and continentally. It is now possible to use the international benchmarks and indicators for global performance measurements purposes.
 - ✓ The rankings give us now the opportunity to compare globally on various standards and in many ways.

A university may use all six categories of criteria (54) indicators) or some of the categories (education, resources...) at the institutional, disciplinary fields and subfields levels to map and compare the performance indicators used by the league tables against its own performance, thus defining and establishing its global strategic position among world university peers.

***Institutional, Fields and Subjects Rankings according to ARWU 2010
The case study of a Canadian University***

		World Rank	Score on Alumni	Score on Award	Score on HiCi	Score on N&S	Score on PUB	Score on PCP/TOP	Total Score
Institutional Ranking		27	52	73	44	37	3	49	41.8
Field ranking	NatSc+Math	33	68	42	38		26	47	56,1
	Engineering	19	n/a	n/a	13		30	58	56,6
	Life	51-75	79	78	74		8	55	n/a
	Medicine	29	50	41	37		1	70	51,1
	Social Sc	52-75	74	75	89		6	68	n/a
subject ranking	Math	45	50	48	54		14	79	51,6
	Physics	40	52	50	36		31	34	53,5
	Chemistry	24	46	31	28		22	50	64,6
	Computer	10	19	8	10		14	27	65,5
	Eco+Business	51-77	77	76	84		19	33	n/a

PHASE 3: SETTING STRATEGIC ISSUES AND GOALS:

The strategic position of the university as a result of the environmental scanning exercise may lead the institution to adopt specific standards and goals regarding its international direction or simply improve specific areas of performance.

Looking namely at the research indicators, given the results of the environmental scanning process, an institution may decide to improve its research performance: setting publication and citation strategies and targets, publishing in highly impact journals and so on...

PHASE 4: MONITORING THE PROGRESS TOWARDS THE IMPLEMENTATION OF THE STRATEGIES AND TARGETS.

- ✓ The key performance indicators, the goals and the metrics that have been selected at the strategic setting issues stage should always be monitored and cross-analysed in order to verify if the goals have been implemented and how they have been reached.
- ✓ This particular phase of the decision making process may lead to a revision of the targets aimed at and of the strategies and actions selected, as it may also lead to revisit the previous stages of the process and define a new mapping of the direction and of the strategic intent of the institution

Concluding remarks

- The author of this paper has argued that the world university rankings can reasonably inform an effective decision making process, if such a process goes beyond the overall scores to take full advantage of the individual indicators, being selectively chosen according to the strategic intent of the institution and linked to a formal strategic environmental thinking exercise leading to operational changes.

We have then learned that...

- In encapsulating the rankings with a single composite index and focusing mostly on world “top” universities, the league tables have somehow hidden and concealed the very broad information used for their production.
- We must restore the intrinsic value and individual indicators: "Each indicator has distinct meanings for measures of value for the k-economy, and of policies for innovation and performance improvement" (Marginson 2008: 17).
- In this sense, the individual indicators provided by the rankings draw the contours of a worldwide genuine public information system capable of producing a customized ranking “à la carte” of universities (Bourdin Report 2007-2008).

THINK GLOBALLY

ACT LOCALLY