



Multidimensional ranking – a step forward from ranking orthodoxy

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Global Seminar on Strategic Issues in Higher Education

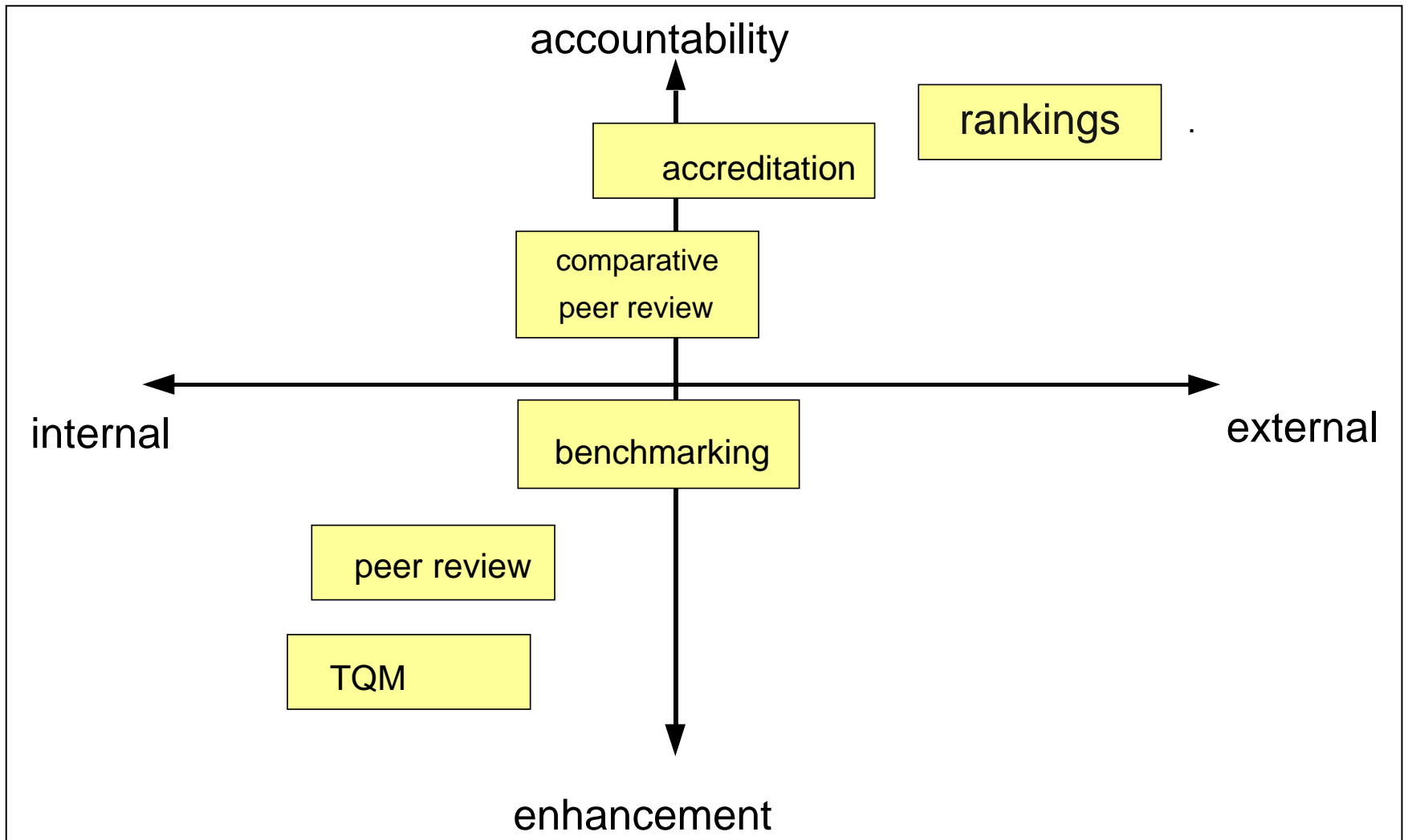
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Rankings and Quality Assessment

Ranking Orthodoxy – Approach and Critique

An Alternative Approach: Multi-dimensional ranking

Ranking and Quality Assurance

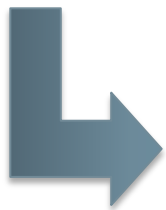


Rankings are external instruments addressing lay users

Major target group of most rankings are *lay* users
(prospective students, parents, employers, ...)
→ Necessity to reduce complexity of information



HEIs /academia are (*expert*) users of rankings
→ Interest in sophisticated and elaborate information



Rankings have to find a balance between
those two conflicting demands

Rankings and Quality Assessment

Ranking Orthodoxy – Approach and Critique

An Alternative Approach: Multi-dimensional ranking

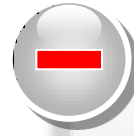
Ranking of whole institutions



Most users are interested in information about “their” field”

- Institutional rankings give misleading averages across fields/units

Composite overall score



Composite indicators blur profiles and strengths & weaknesses

- There are neither theoretical nor empirical arguments for assigning specific pre-defined weights to single indicators

League table approach



Small differences in the scores of indicators lead to big differences in league table positions

- Give false impression of exactness (“Number 123 is better than number 127”)

Rankings and Quality Assessment

Ranking Orthodoxy – Approach and Critique

An Alternative Approach: Multi-dimensional ranking

- **CHE Ranking:** Ranking of German, Austrian, Swiss and Dutch universities – since 1998
- **U-Multirank:** Feasibility study to develop a multi-dimensional international ranking – completed 2010

Multi-dimensional ranking



- There is no single objective ranking
- Each ranking reflects the ideas and preferences of those doing them
- The decision about the relevance of indicators should be left to the user

Multi-level ranking



- Different levels of analysis are relevant for different users
- Students and researchers are interested in information about “their” field
- Field-based and institutional rankings

Grouping approach



- Rank groups instead of league tables provide more meaningful and valid information

CHE Ranking –How it works

Alphabetical order | Order by rank groups

	6. Research Reputation [?]	5. Citations per publication (F) [?]	4. Dovetailing of pre-clinic and clinic studies (S) [?]	3. Teacher support (S) [?]	2. Students per teacher (F) [?]	1. Overall study situation (S) [?]
<input type="checkbox"/> RWTH Aachen	● 1,8	● 26,5	● 2,2	● 1,5	● 4,1	● 7,7
<input type="checkbox"/> FU Berlin	—	● 19,0	—	—	● 4,8	● 42,3
<input type="checkbox"/> HU Berlin	—	● 19,0	—	—	● 4,8	● 42,3
<input type="checkbox"/> Uni Bochum	● 2,3	● 25,5	● 2,7	● 2,3	● 3,0	● 2,5
<input type="checkbox"/> Uni Bonn	● 2,5	● 19,7	● 2,9	● 2,9	● 5,0	● 8,2
<input type="checkbox"/> TU Dresden	● 1,9	● 30,2	—	● 2,1	● 4,0	● 6,3
<input type="checkbox"/> Uni Düsseldorf	● 2,7	● 31,4	● 3,0	—	● 4,8	● 3,7
<input type="checkbox"/> Uni Duisburg-Essen/Essen	● 2,8	● 24,1	● 3,2	● 3,1	● 4,8	● 2,8
<input type="checkbox"/> Uni Erl.-Nümb./Erlangen	● 2,4	● 17,5	● 2,7	● 3,4	● 4,5	● 7,0
<input type="checkbox"/> Uni Frankfurt a.M.	● 3,1	● 38,2	● 3,2	● 3,1	● 5,3	● 10,4
<input type="checkbox"/> Uni Freiburg	● 2,2	● 39,3	● 2,7	● 2,5	● 4,3	● 32,3
<input type="checkbox"/> Uni Gießen	● 2,2	● 33,3	● 2,4	● 2,7	● 3,4	● 1,8
<input type="checkbox"/> Uni Göttingen	—	—	—	—	—	—
<input type="checkbox"/> Med. Uni Graz (A)	—	● 37,1	—	—	● 3,8	—
<input type="checkbox"/> Uni Greifswald	● 1,7	● 20,6	● 1,8	● 2,1	● 4,1	● 3,0
<input type="checkbox"/> Uni Halle-Wittenberg	● 2,8	● 48,5	● 2,8	● 3,1	● 3,4	● 0,5

Sorted by alphabet

CHE Ranking –How it works

6. Research Reputation [?]
 5. Citations per publication (F) [?]
 4. Dovetailing of pre-clinic and clinic studies (S) [?]
 3. Teacher support (S) [?]
2. Students per teacher (F) [?]
 1. Overall study situation (S) [?]

<input type="checkbox"/> FU Berlin	● 19,0	—	—	● 4,6	● 42,3	
<input type="checkbox"/> HU Berlin	● 19,0	—	—	● 4,6	● 42,3	
<input type="checkbox"/> Uni Bonn	● 2,5	● 19,7	● 2,9	● 2,9	● 5,0	● 8,2
<input type="checkbox"/> Uni Erl.-Nürnb./Erlangen	● 2,4	● 17,5	● 2,7	● 3,4	● 4,5	● 7,0
<input type="checkbox"/> Uni Greifswald	● 1,7	● 20,6	● 1,8	● 2,1	● 4,1	● 3,0
<input type="checkbox"/> MH Hannover	—	● 14,7	—	—	● 4,3	● 28,8
<input type="checkbox"/> Uni Leiden (NL)	● 2,1	● 21,6	● 2,2	—	● 6,1	—
<input type="checkbox"/> Uni Nijmegen (NL)	● 2,1	● 21,1	● 2,5	● 2,5	● 6,1	—
<input type="checkbox"/> Uni Prag (CZ)	—	● 6,1	—	—	—	—
<input type="checkbox"/> Uni Regensburg	—	● 19,6	—	—	● 4,4	● 3,3
<input type="checkbox"/> Uni Szeged (H)	● 2,2	● 14,3	—	—	—	—
<input type="checkbox"/> Uni Witten/Herdecke (priv.)	● 1,6	● 10,5	● 1,6	● 1,3	● 3,5	● 0,2
<input type="checkbox"/> Uni Würzburg	● 2,0	● 19,5	● 2,5	● 2,3	● 4,8	● 13,2
<input type="checkbox"/> RWTH Aachen	● 1,6	● 26,5	● 2,2	● 1,5	● 4,1	● 7,7
<input type="checkbox"/> Uni Bochum	● 2,3	● 25,5	● 2,7	● 2,3	● 3,0	● 2,5

Sorted by indicators

But alphabetically within groups

How it works – Personalised Ranking

Which criteria are important for you?

Fold up criteria ▾

Academic studies and teaching

- Contact to students (S) [?]
- Courses offered (S) [?]
- 5. **Dovetailing of pre-clinic and clinic studies (S) [?]**
- E-Learning (S) [?]
- Research orientation (S) [?]
- Students per teacher (F) [?]
- Study organisation (S) [?]
- 3. **Support in bedside teaching (S) [?]**
- Teacher support (S) [?]
- Teaching evaluation (S) [?]

Equipment

- IT-infrastructure (S) [?]
- 4. **Laboratories (S) [?]**
- Library (S) [?]
- Rooms (S) [?]
- Skills Labs (S) [?]
- Treatment rooms (S) [?]

Result of study

- Failure rate doctors' preliminary examination (F) [?]
- Results in the 2nd section of the preliminary exam. (F) [?]
- 2. **Results in the preliminary examination (F) [?]**

Research

- Citations per publication (F) [?]
- Doctorates per professor (F) [?]
- Publications per professor (F) [?]
- Third party funds per professor (F) [?]

Overall opinions

- 1. **Overall study situation (S) [?]**
- Research Reputation [?]

International orientation

- Support for stays abroad (S) [?]

UPDATE RANKING ▶

RESTORE PRE-SELECTION

1st step:
Selection of indicators by
users according to own
preferences

A Personalised Ranking ...

Alphabetical order | Order by rank groups

	1. Overall study situation (S) [?]	2. Results in the preliminary examination (F) [?]	3. Support in bedside teaching (S) [?]	4. Laboratories (S) [?]	5. Dovetailing of pre-clinic and clinic studies (S) [?]
<input type="checkbox"/> RWTH Aachen	● 1,8	—	● 2,4	● 1,9	● 1,9
<input type="checkbox"/> TU Dresden	● 1,9	● 70,8	—	● 1,5	● 2,0
<input type="checkbox"/> Uni Greifswald	● 1,7	● 73,1	● 2,1	● 1,2	● 2,0
<input type="checkbox"/> Uni Heidelberg Medizinische Fakultät Mannheim der Universität Heidelberg	● 1,9	● 74,8	● 1,9	● 1,4	● 1,9
<input type="checkbox"/> Uni Heidelberg Medizinische Fakultät Heidelberg	● 1,8	● 74,0	● 2,1	● 1,5	● 2,0
<input type="checkbox"/> Uni Lübeck	● 1,4	● 72,5	● 1,8	● 1,8	● 1,7
<input type="checkbox"/> Uni Magdeburg	● 2,1	● 72,7	● 2,7	● 1,5	● 2,6
<input type="checkbox"/> Uni Münster	● 1,7	● 72,9	● 2,4	● 1,8	● 2,1
<input type="checkbox"/> Uni Nijmegen (NL)	● 2,1	—	● 2,5	● 2,1	● 2,5
<input type="checkbox"/> Uni Tübingen	● 2,1	● 70,8	● 2,4	● 1,9	● 2,7

... results in a personalised ranking helping to make a choice based on personal preferences

- Multi-dimensional rankings provide a better view on institutional profiles, strengths & weaknesses
- They are user-driven helping to make informed choices
- They avoid the over-simplification of ranking orthodoxy („the number 1 is.....“)
- They can better inform strategic management of institutions
- U-Multirank:
 - Comparing comparable institutions by link to mapping
 - Making visible the diversity of institutional profiles

But after all, there still might be some limits to ranking in general...



„You‘re kidding! You count publications?“

Thank you very much!

For more information:

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www.che-ranking.de/en
www.u-multirank.eu



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