

Unity of Research and Education: Up-to-Date or Obsolete?

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Unity of Research and Education: Wilhelm von Humboldt

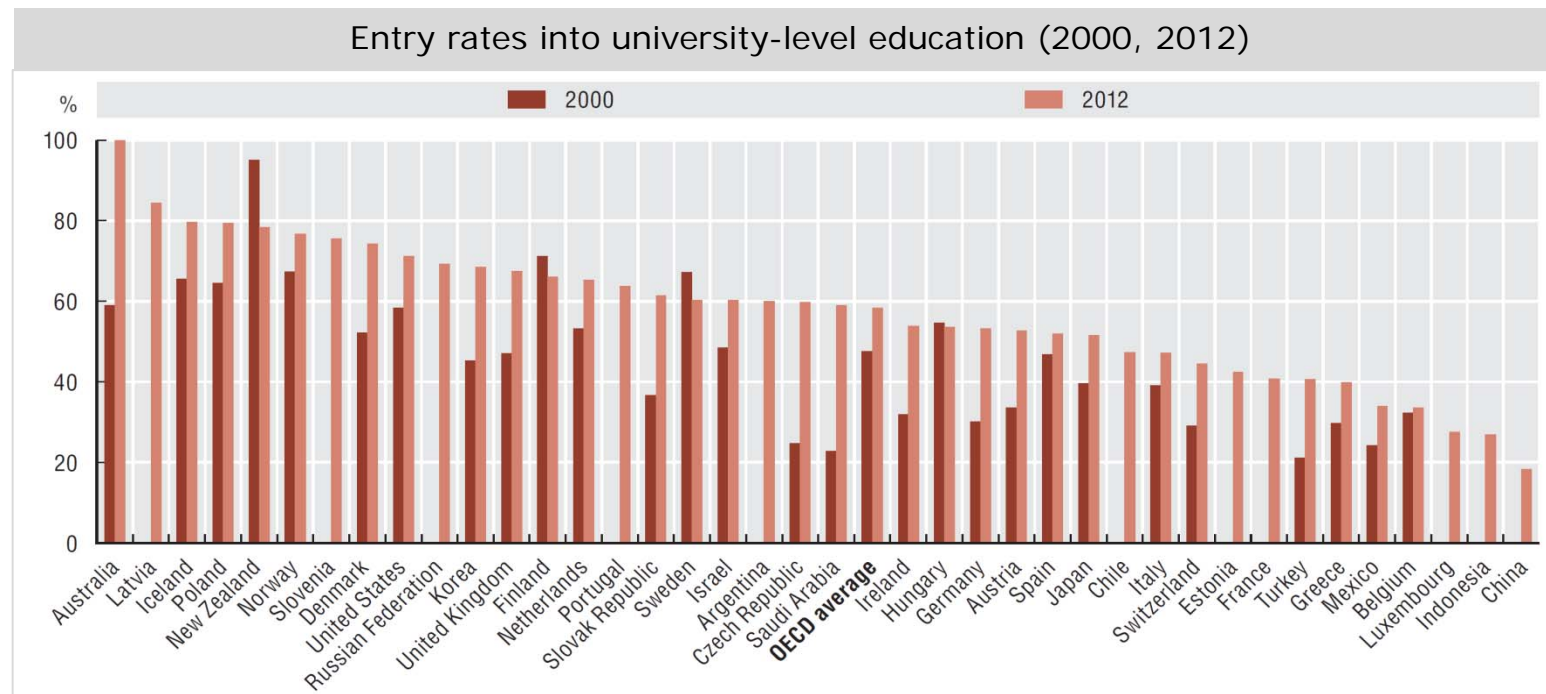


- Universities emphasize that science deals with not fully resolved questions.
- Relation between teachers and students is different from that in schools.
- Faculty are not there for students but both are there for the sciences.
- The presence of students is crucial for research, due to combining the experienced, but possibly narrower and „less lively“ specialist with the „weaker forces, bravely pursuing all directions“.
- Teaching to a critical audience of students motivates faculty in their research efforts¹.

¹ Translated very freely from “Über die innere und äussere Organisation der höheren wissenschaftlichen Anstalten in Berlin” Wilhelm von Humboldt (1809/10).

The university landscape is very different nowadays

- In Humboldt's time: Approx. 1% enrolled at universities¹
¹(Geschichte der Universität in Europa, Walter Rüegg (Hrsg.)).
- Nowadays the world looks very different:



Source: OECD, Education at a Glance 2014

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Today's institutions of higher education are much more diverse

- Wide range of institutions of higher education: Associate's Colleges, Doctorate-granting Universities, Master's Colleges and Universities, etc. In Germany and Austria: Fachhochschulen, Universitäten, etc.
- Fewer than 10% of all US institutions of higher education are doctorate granting universities – see “[Carnegie Classification of Institutions of Higher Education](#)”.
- Relative importance of teaching versus research varies substantially across institutions.
- Among the “leading institutions”, are we going to see a separation into pure teaching universities and pure research institutions?

Synergies between research and teaching: Students' revealed preferences

- **Student preferences seem to be highly correlated with the institution's research productivity:**

Academic Ranking of World Universities (US)¹

1. HARVARD
2. STANFORD
3. MIT
4. BERKELEY
5. PRINCETON
6. CALTECH
7. COLUMBIA

Students revealed preferences (acceptance rates)²

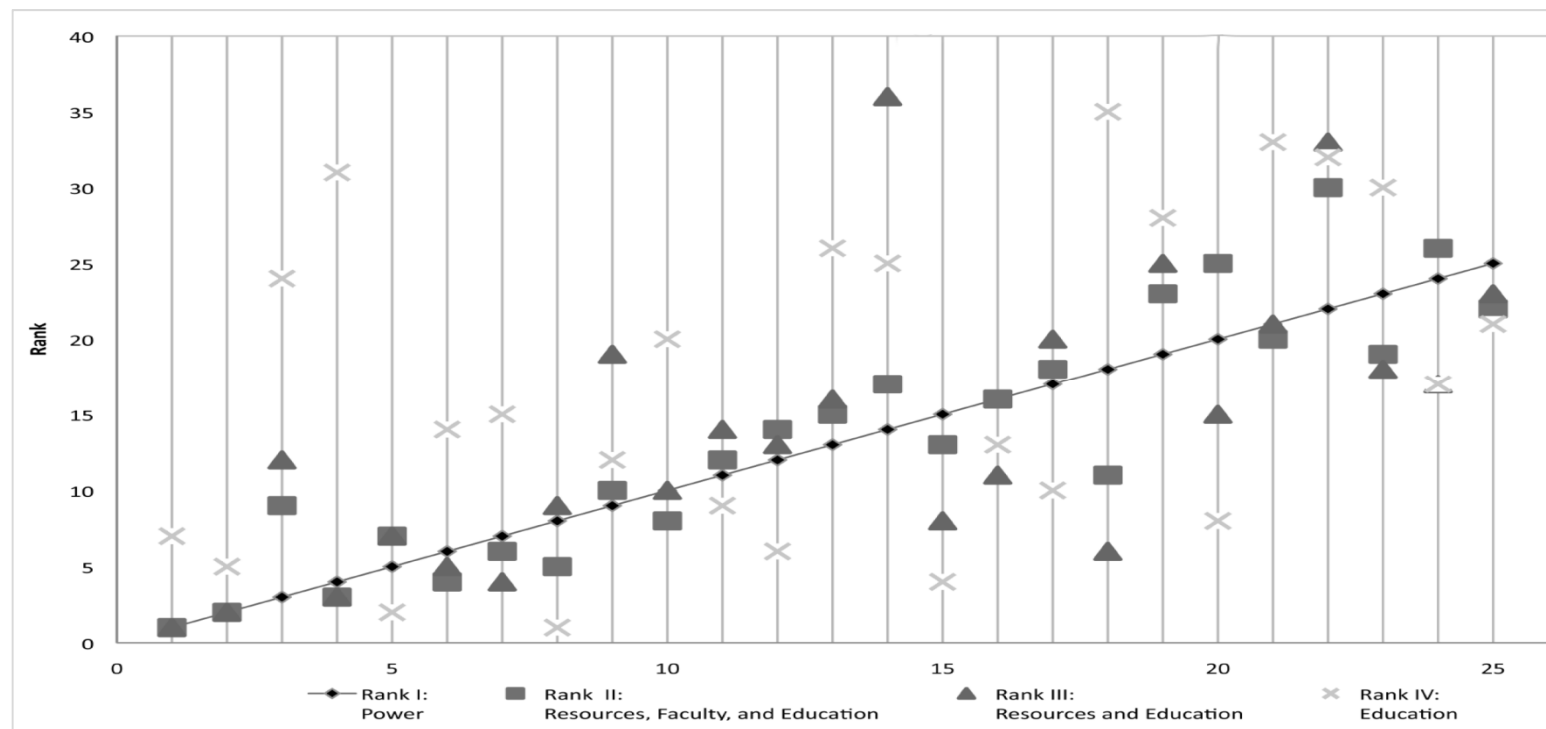
1. STANFORD (5.07%)
2. HARVARD (5.9%)
3. YALE (6.3%)
4. COLUMBIA (6.9%)
5. PRINCETON (7.3%)
6. MIT (7.7%)
7. CALTECH (8.1%)

¹ Shanghai Ranking

² U.S. News & World Report

Correlations between research and teaching: University rankings

- ◆ Rankings according to all criteria (research, resources, faculty, education)
- × Ranking according to education only (#of docorates awarded & median SAT scores)



Source: The Center for Measuring University Performance, Annual Report

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Benefits from combining research and teaching (1)

- Advantage in teaching analytical thinking.
- Faculty research can give graduates substantial comparative advantages: receive most recent know-how and skills.
- Research and methods in business administration are advancing rapidly.
- Textbooks are not able to instantly reflect the state of the art.
- Examples from finance:
 - Option pricing has revolutionized the practice of finance (Robert Merton (MIT, Harvard resp.), Fisher Black (UC, MIT), Myron Scholes (Stanford)).
 - Asset management (Eugene Fama (UC), ...).
 -

Benefits from combining research and teaching (2)

- Spencian signalling: value of education via screening.
 - Are research institutions better screens? Research productivity as a coordination device for students.
- Value via network effects: I want to go where all the other smart students study!
 - Most valuable alumni network → argument as above: research may be the coordination device.
- Value via establishing a global brand.
 - “Students want to be sure that they have got a big global brand on their certificate that’s going to be a passport to their future”, Phil Baty, editor-at-large of Times Higher Education.

Benefits from combining research and teaching (3)

- Valuable feedback from students/teaching to research.
 - Many research ideas come from preparing lectures.
 - Master/PhD students as research collaborators.

So, what's wrong with Humboldt's model today?

- Not much!
- The challenge is to implement it under current circumstances!
 - Requires low teaching loads for research faculty in a world with tight budgets.
 - How do we get faculty to bring more research into the class room and how do we measure quality in teaching?
 - How is increased global competition going to affect the unity between teaching and research?
 - How do we get continental European Business Schools to innovate more?