Excellence Initiatives and World-Class Universities

Jamil Salmi
SJTU – WCU6
2 November 2015
THE LONELINESS OF THE LONG DISTANCE RUNNER

ALAN SILLITOE

author of SATURDAY NIGHT AND SUNDAY MORNING

Brilliant and biting tales of working class life and morals

The title story is now a Woodfall Film presented by Bryanston starring
MICHAEL REDGRAVE and introducing TOM COURTENAY

2/6
Wanted: Someone to grind or chew hay for horse with bad teeth.
Contact James "Bud" Williams, 942-___
Carterville
Outline of the presentation

- “Excellence Initiatives” on the road to academic excellence
- Is it working?
- Lessons learned
The Challenge of Establishing World-Class Universities

Jamil Salmi
The path to glory

- Creating a new institution
- Upgrading existing institutions
- Mergers
Excellence initiatives

• large injection of additional funding by a national government

• aimed at upgrading existing universities in an accelerated fashion
Characteristics of EI

- Government-funded
  - Sometimes co-funding national/local gvt (Germany, China)
  - Endowment (France)
  - Loan (Spain)

- Public vs. private universities

- Research vs. teaching
## Excellence initiatives

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
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<td>Asia &amp; Pacific</td>
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<td>14</td>
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<tr>
<td>North America</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13</strong></td>
<td><strong>37</strong></td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Africa</td>
<td>-</td>
<td>Nigeria</td>
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<td>China, India, Japan, Malaysia, Singapore, South Korea, Taiwan, Thailand</td>
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<tr>
<td>Middle East</td>
<td>-</td>
<td>Israel, Saudi Arabia</td>
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<tr>
<td>North America</td>
<td>Canada</td>
<td>Canada</td>
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</table>
## Amounts involved

<table>
<thead>
<tr>
<th>Whole Universities</th>
<th>Countries</th>
<th>Centers of Excellence</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level of Support</strong></td>
<td><strong>Countries</strong></td>
<td><strong>Level of Support</strong></td>
<td><strong>Countries</strong></td>
</tr>
<tr>
<td>20 million $ ≤</td>
<td>Denmark, Germany</td>
<td>1 – 5 million $</td>
<td>Denmark, Finland, Norway</td>
</tr>
<tr>
<td>20 - 100 million $</td>
<td>Russian Federation, Spain, Thailand</td>
<td>5 – 10 million $</td>
<td>Australia, Germany, Hong Kong, Korea, Nigeria, Slovenia</td>
</tr>
<tr>
<td>≥ 100 million $</td>
<td>China, France, Singapore, Taiwan</td>
<td>≥ 10 million $</td>
<td>Israel, Japan</td>
</tr>
</tbody>
</table>
## Repetition of EI

<table>
<thead>
<tr>
<th>Region</th>
<th>Single Program</th>
<th>Multiple Programs</th>
<th>Multi-Phase</th>
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</thead>
<tbody>
<tr>
<td>Africa</td>
<td>Nigeria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia &amp; Pacific</td>
<td>Australia, Hong Kong, India, Malaysia, Thailand</td>
<td>China, Japan, Singapore, South Korea, Taiwan</td>
<td>China, South Korea, Taiwan</td>
</tr>
<tr>
<td>Europe</td>
<td>Finland, Norway, Slovenia, Spain</td>
<td>Denmark, France Russian Federation,</td>
<td>Germany</td>
</tr>
<tr>
<td>Middle East</td>
<td>Israel, Saudi Arabia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North America</td>
<td></td>
<td></td>
<td>Canada</td>
</tr>
</tbody>
</table>
Characteristics of EIs (II)

• Focus on entire institutions or individual departments / centers?

• Allocation method: competitive or picking winners?
  • New in Western Europe

• Involvement of international experts in selection of winners?

• Scholarship programs (Brazil, Chile, Kazakhstan, Saudi Arabia)
Outline of the presentation

- “Excellence Initiatives” on the road to academic excellence
- Is it working?
Challenge of evaluating Excellence Initiatives

- Time dimension
- Robustness of data
- Attribution
  - Correlation vs. causality
  - Self-selection
- Other factors or combination of factors
Who is rising in the rankings?

<table>
<thead>
<tr>
<th>Country</th>
<th>2004</th>
<th>2015</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>16</td>
<td>44</td>
<td>+ 28</td>
</tr>
<tr>
<td>Australia</td>
<td>14</td>
<td>20</td>
<td>+ 6</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>0</td>
<td>4</td>
<td>+ 4</td>
</tr>
<tr>
<td>South Korea</td>
<td>8</td>
<td>12</td>
<td>+4</td>
</tr>
<tr>
<td>Spain</td>
<td>9</td>
<td>13</td>
<td>+4</td>
</tr>
<tr>
<td>Taiwan</td>
<td>5</td>
<td>9</td>
<td>+ 4</td>
</tr>
</tbody>
</table>
China’s successive programs

• 211 program: 100 top quality universities for the 21st Century

• 985 program: developing 9 world-class universities (C9 League), to compete with the premier league of universities world-wide
  • Extended to 39 universities

• World-Class 2.0

• Results: 16 universities in 2004, 44 in 2014
### Who is falling in the rankings?

<table>
<thead>
<tr>
<th>Country</th>
<th>2004</th>
<th>2015</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>23</td>
<td>20</td>
<td>-3</td>
</tr>
<tr>
<td>Italy</td>
<td>23</td>
<td>20</td>
<td>-3</td>
</tr>
<tr>
<td>Germany</td>
<td>43</td>
<td>39</td>
<td>-4</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>42</td>
<td>38</td>
<td>-4</td>
</tr>
<tr>
<td>Japan</td>
<td>36</td>
<td>18</td>
<td>-16</td>
</tr>
<tr>
<td>United States</td>
<td>170</td>
<td>146</td>
<td>-24</td>
</tr>
</tbody>
</table>
Top 100 universities/1 million people (2015)

- Switzerland: 0.52
- Massachusetts: 0.46
- Denmark: 0.36
- Sweden: 0.31
- California: 0.29
- Israel: 0.26
- Netherlands: 0.24
- Norway: 0.20
- Belgium: 0.19
- Finland: 0.18
- Australia: 0.17
- USA: 0.16
- United Kingdom: 0.14
- Canada: 0.11
- France: 0.06
- Germany: 0.05
- Japan: 0.03
- Russia: 0.01
<table>
<thead>
<tr>
<th>Country</th>
<th>Number of universities in 2015</th>
<th>2004</th>
<th>2015</th>
<th>Excellence Initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>51</td>
<td>0.16</td>
<td>0.16</td>
<td>No</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>9</td>
<td>0.17</td>
<td>0.14</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>4</td>
<td>0.04</td>
<td>0.03</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>4</td>
<td>0.11</td>
<td>0.11</td>
<td>Yes</td>
</tr>
<tr>
<td>Switzerland</td>
<td>4</td>
<td>0.38</td>
<td>0.52</td>
<td>No</td>
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<tr>
<td>Netherlands</td>
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<td>0.12</td>
<td>0.24</td>
<td>No</td>
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<tr>
<td>France</td>
<td>4</td>
<td>0.07</td>
<td>0.06</td>
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</tr>
<tr>
<td>Germany</td>
<td>4</td>
<td>0.08</td>
<td>0.05</td>
<td>Yes</td>
</tr>
<tr>
<td>Australia</td>
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<td>0.09</td>
<td>0.17</td>
<td>Yes</td>
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<tr>
<td>Sweden</td>
<td>3</td>
<td>0.42</td>
<td>0.31</td>
<td>Yes</td>
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<tr>
<td>Denmark</td>
<td>2</td>
<td>0.18</td>
<td>0.36</td>
<td>Yes</td>
</tr>
<tr>
<td>Israel</td>
<td>2</td>
<td>0.15</td>
<td>0.26</td>
<td>Yes</td>
</tr>
<tr>
<td>Belgium</td>
<td>2</td>
<td>0.00</td>
<td>0.19</td>
<td>No</td>
</tr>
<tr>
<td>Russia</td>
<td>1</td>
<td>0.01</td>
<td>0.01</td>
<td>Yes</td>
</tr>
<tr>
<td>Norway</td>
<td>1</td>
<td>0.20</td>
<td>0.20</td>
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<td>Finland</td>
<td>1</td>
<td>0.19</td>
<td>0.18</td>
<td>Yes</td>
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<tr>
<td>Austria</td>
<td>0</td>
<td>0.12</td>
<td>0.00</td>
<td>No</td>
</tr>
</tbody>
</table>
Findings

- Mixed results
- Smaller countries have the best result overall
- Switzerland, Denmark, Israel, Australia and Belgium have progressed most
  - 3 of them have an Excellence Initiative
- Confirm the importance of high levels of funding (Switzerland and Netherlands)
Findings (II)

- Individual results more conclusive

- Top 5 universities all benefited from Excellence Initiative
  
  - SJTU
  
  - King Saud U
  
  - Aix Marseille U
  
  - Fudan U
  
  - Technion Institute
outline of the presentation

• “Excellence Initiatives” on the road to academic excellence

• Is it working?

• Lessons learned
Benefits

- Opportunities for young researchers
- Internationalization
- Inter-disciplinary research
- High-impact / high-risk research
Challenges

• Financial stability over the years
  • Crisis (Japan and Spain)
• Phased programs
  • Germany - change in Constitution
• Endowment (France)
• Bias against teaching
UK Minister of Universities (September 2015)

Because many universities see their reputation, their standing in prestigious international league tables and their marginal funding as being principally determined by scholarly output, teaching has regrettably been allowed to become something of a poor cousin to research in parts of our system.
Challenges

• Financial stability over the years
  • Crisis (Japan and Spain)
  • Phased programs
  • Endowment (France)

• Bias against teaching

• Missing piece: governance
  • Flexibility (China, Germany, France)
  • Vision (Brazil)
Danger of the mergers

- Size
- Homogeneous institutional culture
Mergers in Russia

- imposed by government (Federal Universities Program)
- geographical proximity but no academic complementarity
- tension between old regional focus and new global orientation
- increased competitiveness for academics
Systemic distortions

• Vertical differentiation

• Lack of funding for other parts of the tertiary education system

• World-class universities vs. world-class systems
  • Netherlands as a model?
Risk of resource misallocation

Australia cannot afford to spread its relatively small resources too thinly. It must invest in niche areas. This means that some universities and some fields should get preferential treatment. If Australia does not have some universities playing at the high end, Australia will fall behind. (Gallagher, 2008)

Fund the best PhDs and forget the rest
Nicolas Sarkozy
President of France, 2009

‘We want the best universities in the world....How many universities do we have? 83? We’re not going to divide the money by 83.’
Systemic distortions

• Vertical differentiation

• Lack of funding for other parts of the tertiary education system

• World-class universities vs. world-class systems
  • Netherlands as a model?
Conclusion
To rank or not to rank?
To rank or not to rank?
Words of caution

• What is your purpose?
  • Chasing rankings and national prestige?
  • Search for excellence?

• Danger of homogenization
Words of caution

• What is your purpose?
  • Chasing rankings and national prestige?
  • Search for excellence?

• Danger of homogenization

• Dare to be different
Dare to be different

- Teaching
  - Overcrowding in Germany and France

- Inclusion
  - ASU
Words of caution

• What is your purpose?
  • Chasing rankings and national prestige?
  • Search for excellence?

• Danger of homogenization

• Dare to be different

• Take the long view
Excellence, like all things of abiding value, is a marathon, not a sprint

Daniel Lincoln