Finding Scholarly Communities
Then and Now

The Nature of Historical Evidence.
Modeling the History of Scholarship.
Predicting the Future of Science.
Mapping the Republic of Letters
Modeling the Republic of Letters
The Nature of Historical Evidence

1. Stuff happens.
2. Stuff vanishes from documentary evidence.
3. To whom?
   - Unconnected, impoverished, or otherwise unimportant.
   - People with access, knowledge, or power
4. Time passed. Is document still relevant?
5. Absolutely not.
6. Is document interesting or important?
   - Not really.
   - Yes!
7. Store document(s) in historical purgatory.
8. Duplicate, broadcast, publish, or otherwise distribute document.
Mixed Indicators Model for Identifying Emerging Research Areas

• Sudden increase in specific word frequency
• Speed with which new authors attracted
• Changing interdisciplinarity of cited references

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<thead>
<tr>
<th>Indicators</th>
<th>Nano*</th>
<th>RNAi</th>
<th>Impact Factor</th>
<th>h-Index</th>
<th>Insight Gains</th>
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<td># Bursting Words</td>
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<td># New Authors</td>
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<td>Topical Brain Drain</td>
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<td>Interdisciplinarity of References</td>
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<td>Diversity of Base Knowledge</td>
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