The Patent Quality Index

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The Patent Quality Index

A single, unified (numeric) metric representing the quality of a patent document.
**Key Features**

- **PQI measures quality, not value**
  - Describes the correspondence between the document and the requirements of the Patent Law

- **The PQI is objective & data-driven**
  - Uses measurable / accessible indicia to construct the index
There Exists an Array of Objective, Accessible Data Describing Patent Quality

<table>
<thead>
<tr>
<th>normalized size of specification &amp; drawings</th>
<th>‘new matter’ rejections, § 112 rejections, prior-art-based rejection(s)</th>
<th>validity upheld in reexamination</th>
</tr>
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<tbody>
<tr>
<td>normalized number of claims / number of independent claims</td>
<td>correlation between rejections and specification</td>
<td>validity upheld in litigation</td>
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<tr>
<td>strength of correlation between claims &amp; specification</td>
<td>allowance after BPAI decision</td>
<td>post-issue assignment transfers</td>
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# Data Becomes Available at Different Stages

<table>
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<tr>
<th>data at filing</th>
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## Sub-Indexes Can Provide Insights

<table>
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<tr>
<th><strong>patentee effort</strong></th>
<th><strong>prosecution intensity</strong></th>
<th><strong>inherent metrics</strong></th>
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These are only a few of the many relevant, accessible factors.
Building the PQI

1. Select and refine index factors
   ✦ Likely to include the development of sub-indexes (e.g., a “patent complexity,” or “prosecution activity” index)

2. Test index factors for significance
   ✦ Regress against valid / invalid patents
   ✦ Regress against allowed / abandoned patents
   ✦ Regress against human-based evaluations

3. Further refine & repeat
   ✦ Community feedback & participation is essential and ongoing
   ✦ The PQI as a dynamic, responsive tool
PQI Products

- Public-academic project: open, free, available
  - The index-generating algorithm will be released

- Provide a web-based interface to the indexing algorithm: enter appropriate information, receive PQI results.

- Ongoing research & periodic release of summary-related data:
  - “Top & Bottom 100 Patents” — “Best & Worst Patent Portfolios”, etc.

- Again, the project is iterative, ongoing
  - Continual refinement of techniques — acquisition of new data
  - An ongoing dialog within the patent community
Why the PQI?

- A “quick and dirty” way to evaluate the quality of patent documents at all levels of the system
  - Pre-submission analysis — checking apps against baselines / targets
  - Upon application submission — allowing triage, resource allocation
  - After patent issue — an additional piece of information

- Offer targets / benchmarking for high-quality patenting practices

- Develop overall patent quality metrics
  - Key baselines — median quality, quartiles, distribution
  - Enable meaningful trend analysis of quality issues

- Provide insights into potential procedural improvements in the system

- Get people talking and thinking about the details of patent quality — and acting that way.
Timeline & Milestones

Jan. 2006
- Developing Measurement Factors
- Data acquisition
- Establish project structure

July 2006
- Testing/Refining Factors
- Conference

Jan. 2007
- Revising Measurement Factors
- Data acquisition
- Products

July 2007
- Testing/Refining Factors
- Conference
- Products

Jan. 2008
- First Launch

Note: Assumes budgeted funding levels.
Needs and Requests

Feedback on indicia factors:

- What makes for a high / low quality patent document? Can we measure it? Where can we find the factor? Should it be normalized, or is it independent of other factors?

Feedback on overall project direction and goals:

- What should we be trying to do with the PQI? What sort of information would be most useful / beneficial?

Resource support: financial, technical, expertise, ongoing advice
The Patent Quality Index

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