## **Post-Grant Patent Review**

Conference on Patent Reform Berkeley Center for Law and Technology April 16, 2004

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## Overview

- Heterogeneity
- More patents not necessarily better
- \* Problem and reasons for it
- **#** Evidence?
- Post-grant review: benefits and costs

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## The problem – brief review

- Rapid growth in patent applications leading to
  - Large increase in patent office workload
  - Higher grant rates?
- Increase in patent litigation
- Consensus that the average standard being applied during the past decade is too low, especially in newer technology areas
  - Long list of legal, economic, policy scholars and practitioners.....

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#### Possible causes

- overburdened patent office
- lack of expertise in the relevant areas
- lack of prior art databases
- weakening of the non-obviousness test, partly through court decisions
- Some of these problems already addressed by USPTO
  - Hiring changes (computer scientists)
  - Second exam for 705 patents
  - Increased prior art availability; better searching methods
  - Etc....

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## More is not necessarily better

- Trivial patents confer market power without consumer benefit
- Slows advance in cumulative technologies
  - increases level of fragmentation of rights
- Some areas of research avoided by small and new firms (Lerner 1995)
- More patents => more litigation
  - Investment in innovation and commercialization slowed by uncertainty over patent validity
- Clogs the process at the USPTO, especially as others increase patenting in response

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#### Evidence?

- Compare grant rates at the EPO for applications with US and non-US priority dates
  - Difference in grant rates has risen from 0% to about 16% during the past 20 years
  - Yet...US priority patents should be of "higher" quality (value)
  - Suggests a decline in the standard of US applications
- Compare grant rates for US priority patent equivalents at EPO and USPTO (OECD study)
  - Difference in grant rates at USPTO versus EPO has grown from 12% to 30% during the past 20 years
  - Suggests a decline in the standard of patentability

Source: OECD and Harhoff calculations

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# Post-grant patent reviews – expected benefits

- Who is most likely to be able to demonstrate obviousness using non-published prior art?
  - Competitors who are familiar with the area
- Fast feedback to current patent examination
- Second pair of eyes improves quality; PTO spends more time on valuable patents
- Revoked patents cannot cause litigation => large welfare gains (Graham et al. 2004)
- Dampening effect on aggressive patent portfolio strategies

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# Post-grant patent reviews – expected drawbacks

- Too costly?
  - additional financial burden for patent holders
- Too lengthy?
  - delays enforcement of patent rights (but so does litigation)
  - general delay of uncertainty resolution?
- Is the USPTO capable of running such a process?
  - Not without additional resources
- Independent inventors and small entities may be disdavantaged in such a process
  - But no evidence that they are more subject to either US reexam or European opposition
  - Process costs less than litigation and should be faster

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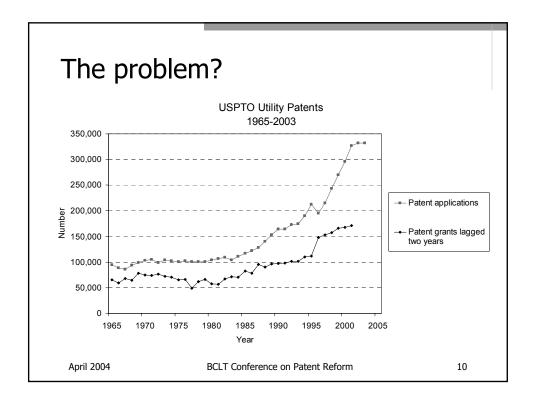
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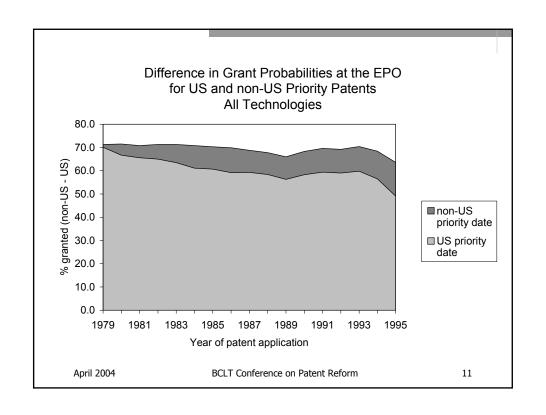
# Backup slides follow

- \*\* Aggregate US patent applications and grants 1965-2003
- Further data on grant differences at EPO between US priority and non-US priority

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## A look at the European experience Outcomes of EPO examination – by technical field

| Technical<br>Field | Non-US<br>Grant Rate* | US Grant<br>Rate** | Difference |
|--------------------|-----------------------|--------------------|------------|
| Electrical         | 69.7%                 | 57.8%              | 11.9%      |
| Instruments        | 67.0%                 | 60.1%              | 6.9%       |
| Chemicals          | 68.4%                 | 56.7%              | 11.7%      |
| Processes          | 68.4%                 | 61.7%              | 6.7%       |
| Mechanical         | 70.4%                 | 61.7%              | 8.7%       |
| Construction       | 62.9%                 | 51.6%              | 11.3%      |
| All Fields         | 68.3%                 | 58.4%              | 9.9%       |

Application years 1990 and earlier. Grants include grants after appeal.

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<sup>\*</sup> Grant rate for EPO applications with non-US priority

<sup>\*\*</sup> Grant rate for EPO applications with US priority