



Institute for Innovation Research,  
Technology Management und Entrepreneurship



# New challenges to the Patent System

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European Patent Office Munich

**Additional Conference Handout**

## **Plenary Presentation 3**

Brian Kahin (Ford School of Public Policy, University of Michigan)

# **Bridging the Gap between Research and Policy**

# Bridging the Gap Between Research and Policy

*Brian Kahin*  
*University of Michigan*

**European Policy for Intellectual Property**  
Munich  
24 April 2003

- U.S. advantages
  - good venues
  - progress on interdisciplinary approaches
  - but
    - channeled policy development
    - capture at judicial level
    - no policy research
- European advantages
  - institutional flexibility at the EC
  - strategic approach to policy development
  - but
    - EPO outside political process
    - division between economists and lawyers
    - questionable policy research

# nature of the gap

- disciplinary gap
- mainstream economics, backwater law
- community of practice hostile to scrutiny research and policy
- numbers gap – data only at the periphery

- practice leads the way
- law follows practice
- policy follows law
- research lags behind policy

## *gulf between legal and economic analysis*

- complexity of law and practice
- public rights/private regulation
- legal focus on process and individual patents
- policy focus on administration
- lack of empirical data on practice
- patentee-centric perspective
- ideology of non-discrimination

“My first introduction to the way to deal with patents by my attorneys was, for the love of God, don't look at them, which meant that I was in a vacuum for more than a year. I simply didn't look at any patents and I never went to the USPTO site, and if anybody mentioned a patent I burned it as quickly as possible.”

***R. Jordan Greenhall***, Chief Executive Officer, Divx Networks, FTC/DOJ hearings Feb 2002

“TI has something like 8000 patents in the United States that are active patents, and for us to know what's in that portfolio, we think, is just a mind-boggling, budget-busting exercise to try to figure that out with any degree of accuracy at all.”

***Frederick J. Telecky, Jr.***, Senior Vice President and General Patent Counsel, Texas Instruments, FTC/DOJ hearings Feb 2002

# *patent paradox*

- innovation regime operated by lawyers
  - precedent-oriented decision-making in rapidly evolving technology
  - insular decision-making in a global political economy (State St., SPLT)
- ambivalence toward knowledge
  - discourages sharing of knowledge
  - no monitoring of the system
- technology-blindness
  - applies to process, not results (so effects differ)
  - policy driven by pharmaceuticals
    - conundrum of IT patents
- past success controls future innovation
  - esp. for cumulative technologies, and esp. at portfolio level
- standard based on mediocrity
  - “ordinary skill in the art”
    - why not “recognized skill in the art”
  - lower standard for combinations in U.S
  - novelty is the only standard
  - 90-95% of applications ultimately granted in U.S

# challenges

- missing perspectives
  - submarket economics
  - knowledge management
  - political economy
  - systemic
  - history
- intuitive arguments
- research on perception
  - hearings vs. hard data

## *eroding standards pollute metrics*

- **subject matter**
  - biotech
  - software, business methods
- **utility**
  - information useful in research
- **inventive step/nonobviousness**
  - U.S. case law
- **novelty**
  - hard to apply in software, business methods

*diverging economic characteristics*

- “business method” problem
  - not “technology”
    - one patent covers many products/implementations

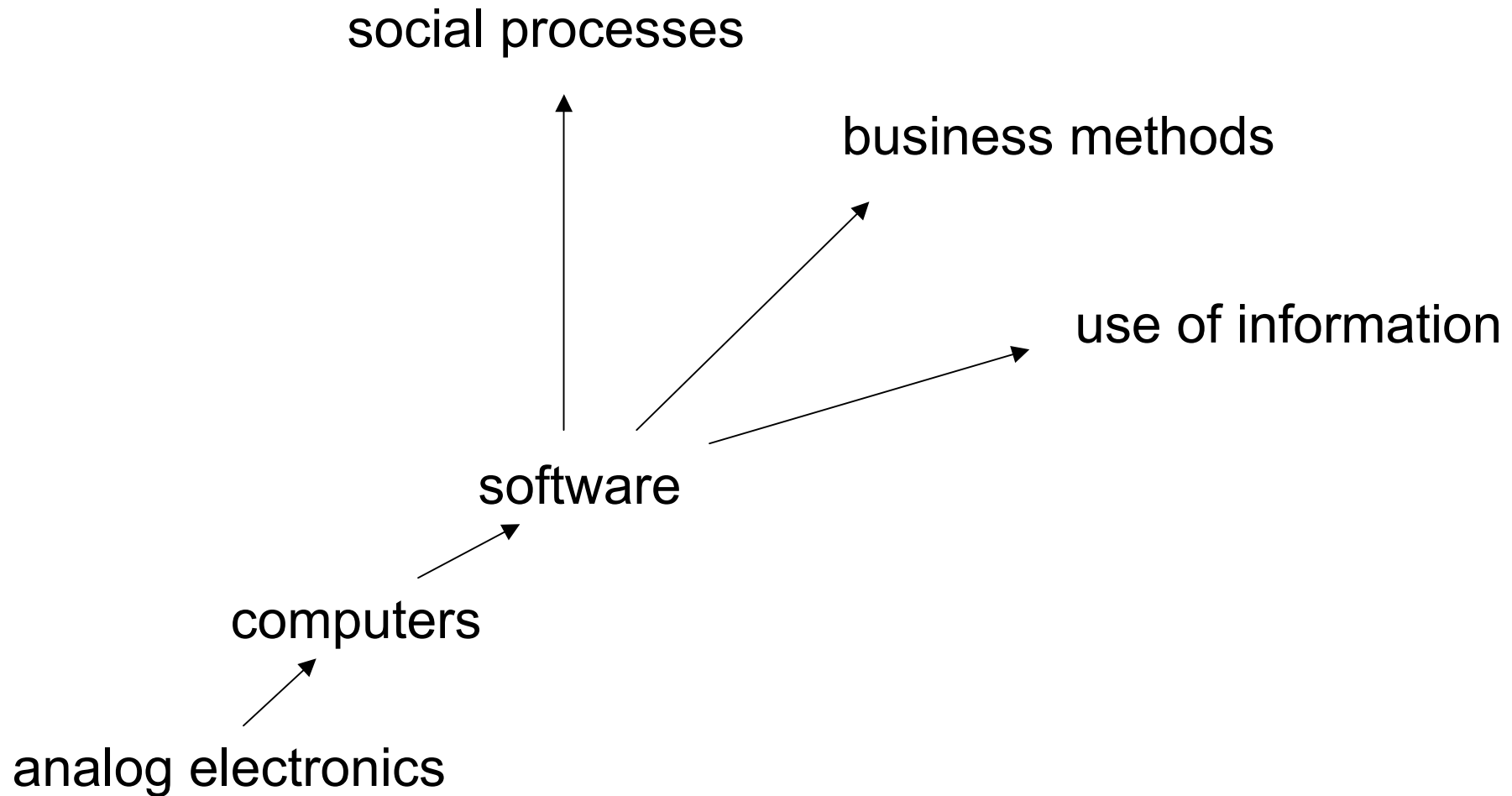


- pharmaceuticals, chemicals
  - discrete technology
  - one patent, one product



- “software” problem
  - complex technology
    - one product, many patents

# *advancing practice*



*importance of patents to pharmaceuticals*

- low cost of patent prosecution relative to value of patented product
- high costs of commercialization, including clinical testing and regulatory approval
- high potential for free riding

# *why software is different*

- extreme range of granularity from code-level algorithms to business methods
- sequential/cumulative nature of innovation
- rapid innovation
- high value of integration and debugging
- low barriers to entry → distributed, diverse and voluminous innovation
- diminished role of explicit knowledge
  - long prepatent history
- network effects leverage protection
- pervades all sectors
- availability of copyright
  - ethic of originality
- open source alternative

*costs of patent litigation*  
*U.S. 2001*

amount at stake	costs per side	total for both sides	plus
< \$1M	\$499K (\$400K in 1999)	\$998K	staff time, opportunity costs, social costs
\$1M to \$25M	\$1499K	\$2.998M	
>\$25 M	\$2992K	\$5.984M	

AIPLA, Report of Economic Survey 2001

“...[W]ith the advent of business method patenting it is possible to obtain exclusive rights over a general business model, which can include ALL solutions to a business problem, simply by articulating the problem.”

- *IBM, Comments on the International Effort to Harmonize the Substantive Requirements of Patent Laws, May 2001*

“An innovator asks two questions:

- Can I get a patent?
- Do I infringe the patents of others?

The answer to the first is usually too easy: yes.

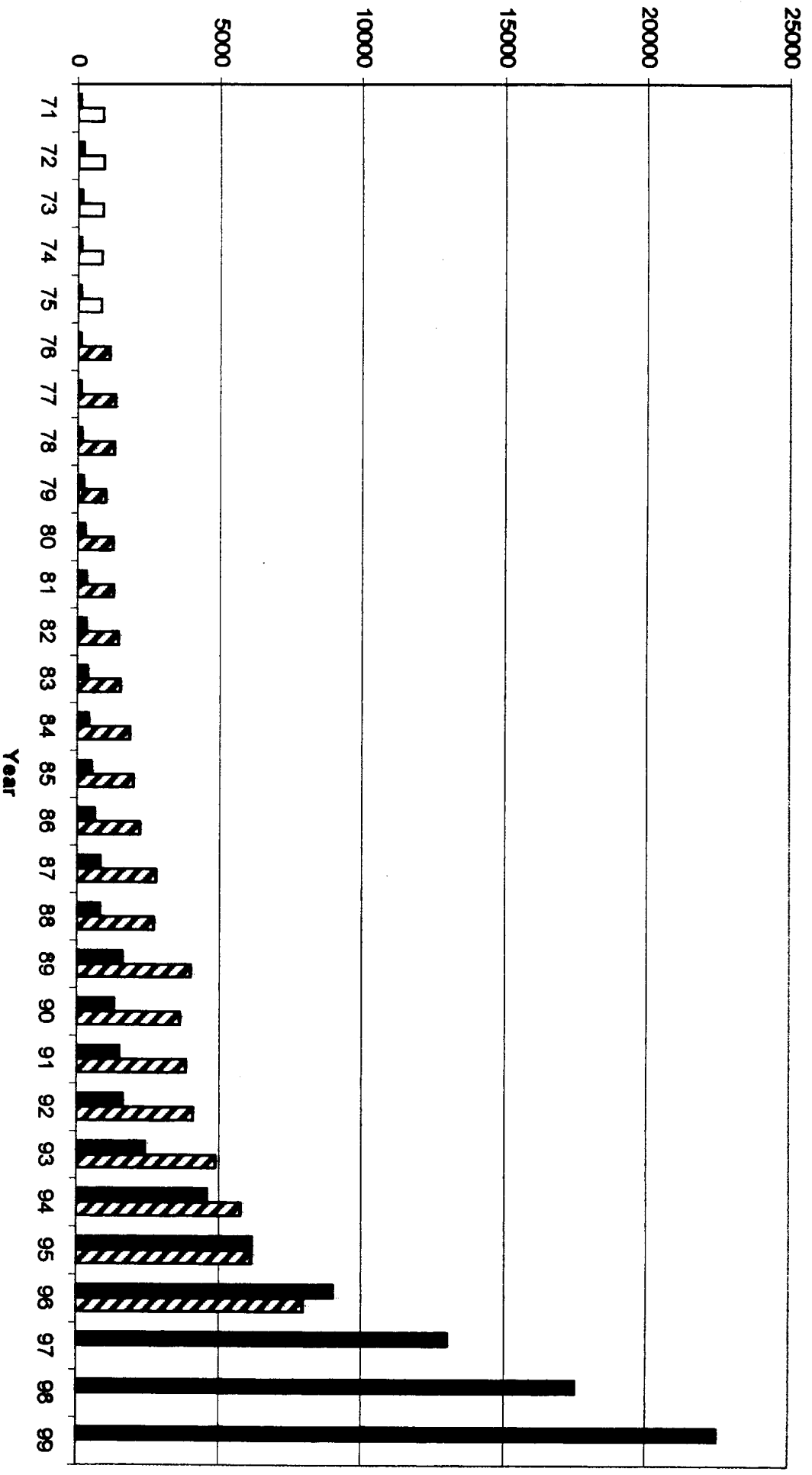
The answer to the second is much more difficult and, as a practical matter, impossible.”

*Robert Barr, Vice President, Worldwide Patent Counsel, Cisco Systems, Inc., FTC Roundtable, October 2002*

## *failure of disclosure function*

- too much information
- dual aspect (claims vs. disclosure)
- low quality, difficult to evaluate
- risk of willful infringement
- not written to be useful
- opportunity cost, reliance on tacit knowledge
- culture of originality

# US Software Patents: Greg v. 364/395



# patent inflation

- quality problem: missed prior art
- nonobviousness standard keyed to mediocrity (PHOSITA)
- examiner must document nonobviousness
- high presumption of validity
  - clear and convincing evidence to invalidate
- very low standard for combinations of known art
  - Priceline: Internet plus reverse auction
- institutional pressures

# institutional pressures

- Intermediaries benefit from:
  - volume
  - expanded scope
  - uncertainty
- PTO
  - expansionist philosophy
  - mission: “to help customers get patents”
- specialized court: CAFC
  - “a booster for its speciality” (Richard Epstein)

## *unintended effects on competition*

- portfolio effects favor large incumbents
- high transaction costs favor large firms
- uncertainty favors large firms
- low standards favor first movers, large firms
- strength of patents favors nonproducers

## *effect on open source*

*""Linux patent violations/risk of being sued" struck a chord with US and Swedish respondents.*

Seventy-four percent of Americans and 82 percent of Swedes stated that the risk of being sued over Linux patent violations made them feel less favorable towards Linux. This was the only message that had a strong impact with any audience."

Internal Microsoft research, September 2002, posted as "Halloween 7" at [opensource.org](http://opensource.org)

# *knowledge diffusion systems: Patents vs OSS*

## *Patents:*

- government-enabled private regulation
- monopoly incented
- high overhead
- disabling
- expressed knowledge
- no validation
- creates uncertainty

## *OSS:*

- free market
- informally incented
- low overhead
- enabling
- embedded knowledge
- validation by use
- minimizes uncertainty

# positive developments

- in-depth industry interviews (Hall-Ziedonis)
- in-depth industry surveys (Blind)
- recognition of “patent thickets”
- law and economics movement
- engagement by competition agencies in U.S.
  - public record from hearings
- National Academy study
- EC commitment to monitoring
  - “Observatory” proposal

# some disturbing trends

- Patents uncoupled from going businesses (esp. post-Bust)
- Licensing as free-standing profit centers: TI, IBM, AT&T, Lucent, HP....
- Mining patent portfolios (BT v. Prodigy)
- Broadcast litigation against small users:
  - Pangea IP (youmaybenext.com)
  - SBC vs. museumtours.com
  - Acacia – streaming media