



# “The Elephant in the Room”

## *America’s Patent Quality Conundrum*

*A discussion prepared for the*  
**Patent Public Advisory Committee**

**ReedSmith**

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The business of relationships.<sup>SM</sup>

**Craig P. Opperman**  
**April 29, 2009**

# Like the three little pigs, we all care about “Patent Quality”



# Patent Quality

Hard to define, but you know it when you see it



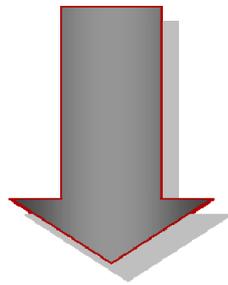
“You're not going to get a quality patent if you have a very poor quality application, **garbage in, garbage out**, so that we need to improve the quality of what goes in if we're going to be able to get quality coming out the other end.”

- Marc Adler, page 119, transcript of the PPAC meeting, October 2009

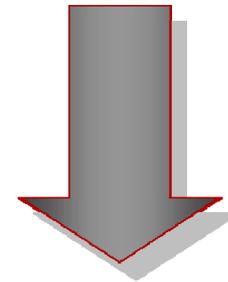


# GIGO

**Garbage In – Garbage Out**



**Applicant's  
Control**



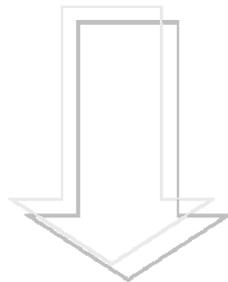
**PTO's  
Control**



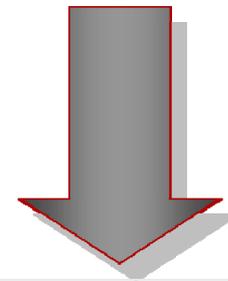
# Today's Discussion

# GIGGO

Garbage In – **Garbage Out**



Applicant's  
Control



**PTO's  
Control**



# Quality is not increased by “silly” rejections

- “The summary of claimed subject matter relies on excessively ambiguous correlations to US Patent ...In particular,...:
  - The use of the term "etc", which provides no useful information...

Notice of Defective Brief dated March 2010 for an Appeal Brief filed Aug 2009



# Quality is not increased by rejections for the sake of rejections

It would have been obvious to one of ordinary skill in the art to modify \_\_\_\_\_ to configure each telephone set as a server so as to as to support additional inter-communicating applications programs as taught by \_\_\_\_\_.

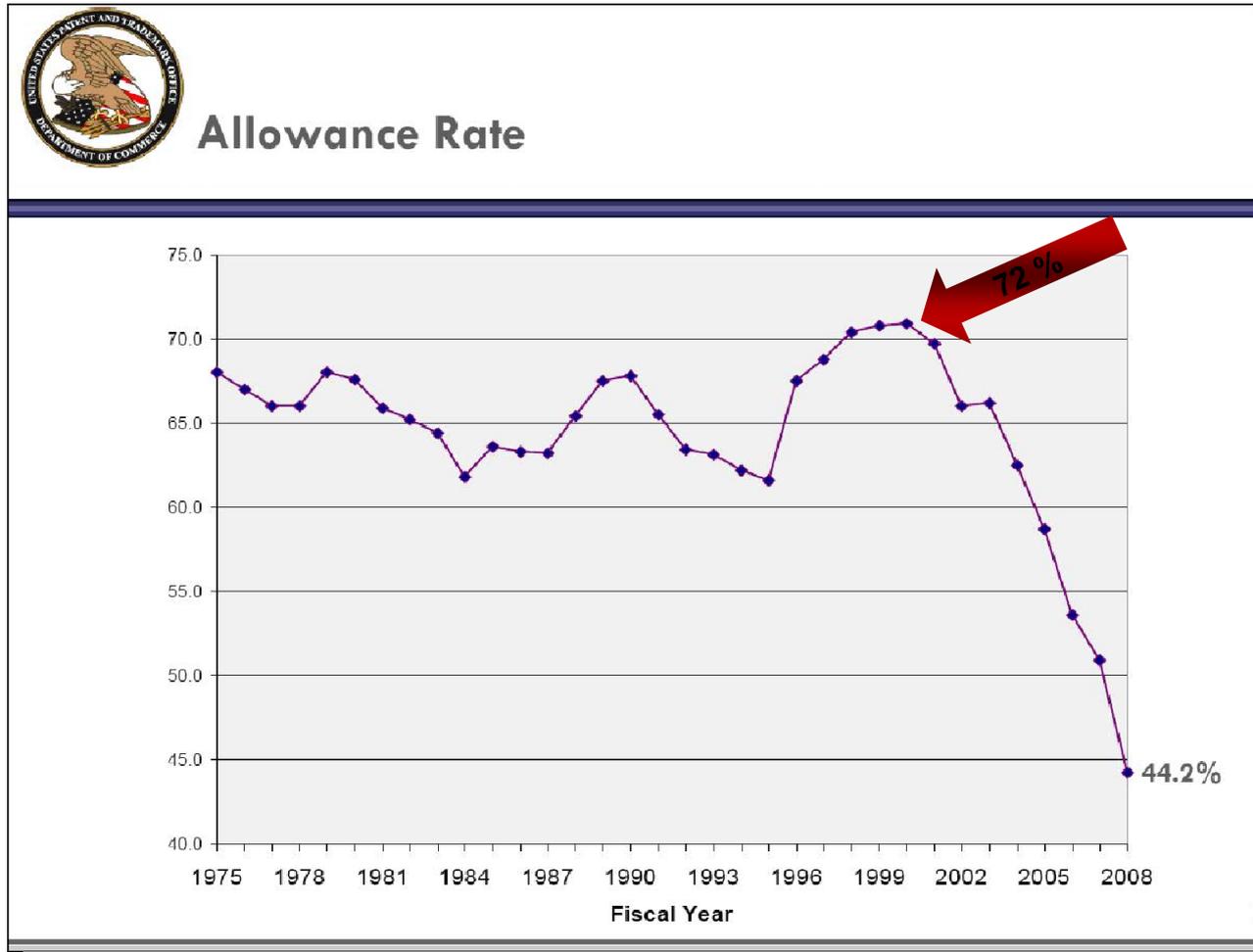
This is the only reason for the obviousness to combine a 1991 videophone with a 1990 Unix based X-Server.

It was repeated nearly 10 times.

Things aren't obvious merely because Examiners say they are.

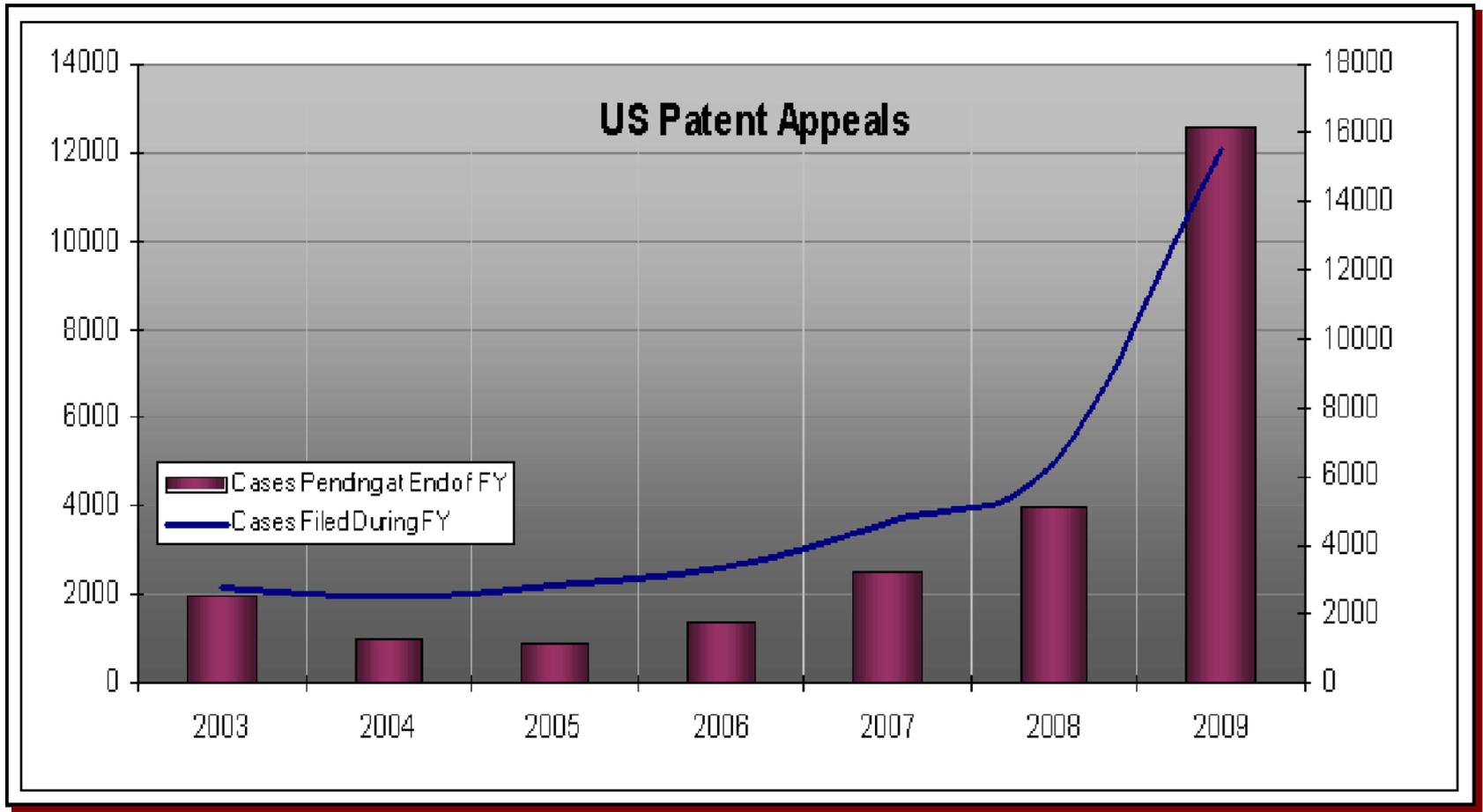


# Quality is not proportional to rejections



<http://inventivestep.net/2008/12/15/patent-allowance-rate-continues-to-drop/>

# All it results in is Skyrocketing Appeals



# Quality has two parts

## Input and Output

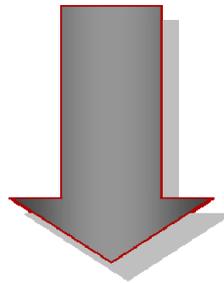
- The USPTO is usually on the output side
  - It's a given: Quality examinations make for greater quality patents...
  - But, low allowance rates do not always mean quality patents
  - “Process pedantic” does not make for quality patents
- What about the input side....?
  - Is there a role for the USPTO?



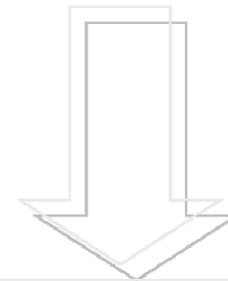
# Today's Discussion

# GIGGO

## Garbage In – Garbage Out



**Applicant's  
Control**



**PTO's  
Control**



# So “What's [really] wrong with the U.S. patent system?”

“The Patent Office gets 450,000 applications a year, and there's a backlog of 1 million applications - 700,000 of them are just sitting in a stack. The examiners don't have time to review them.

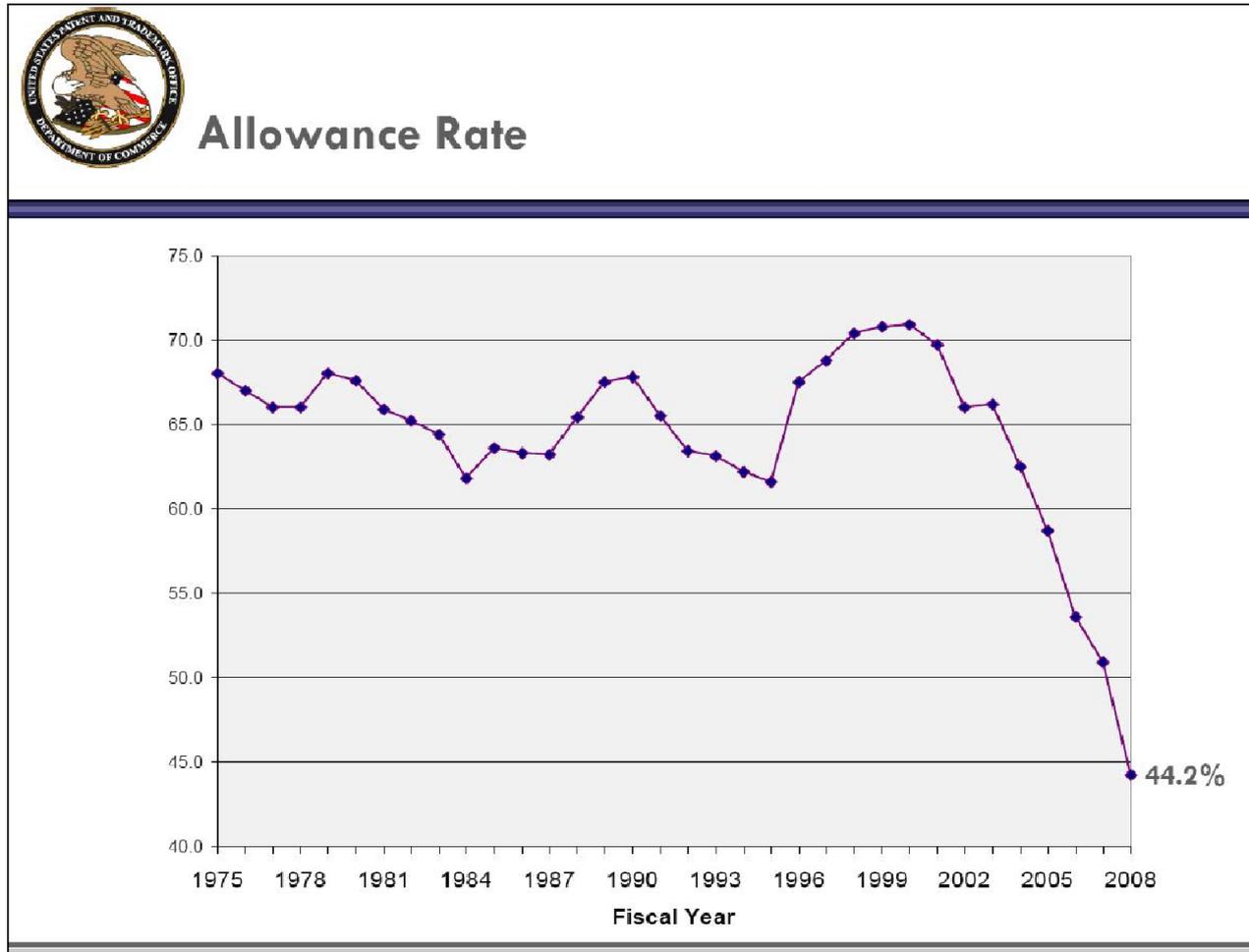
It's sort of turned patenting [into] a mass-production business, and I think there are concerns that quality has declined.”

Mark A. Lemley, a Professor at Stanford Law School as quoted in Business Week, April 8, 2009



# Plummeting allowance rates

## How much is driven by “garbage in?”



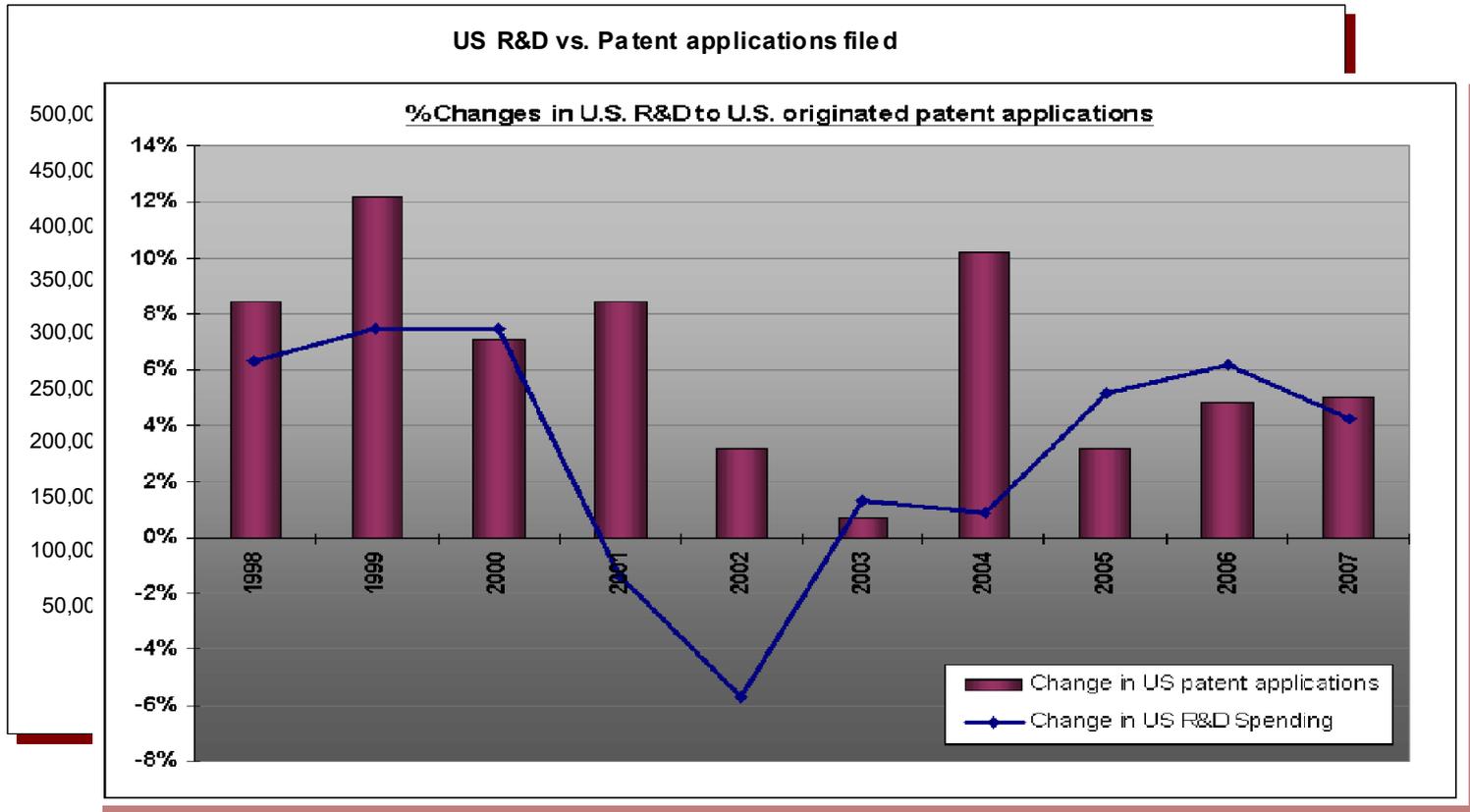
<http://inventivestep.net/2008/12/15/patent-allowance-rate-continues-to-drop/>

# Applicant-side origins of the low-quality patent problem

**More patent applications for lower quality innovations for fewer dollars**



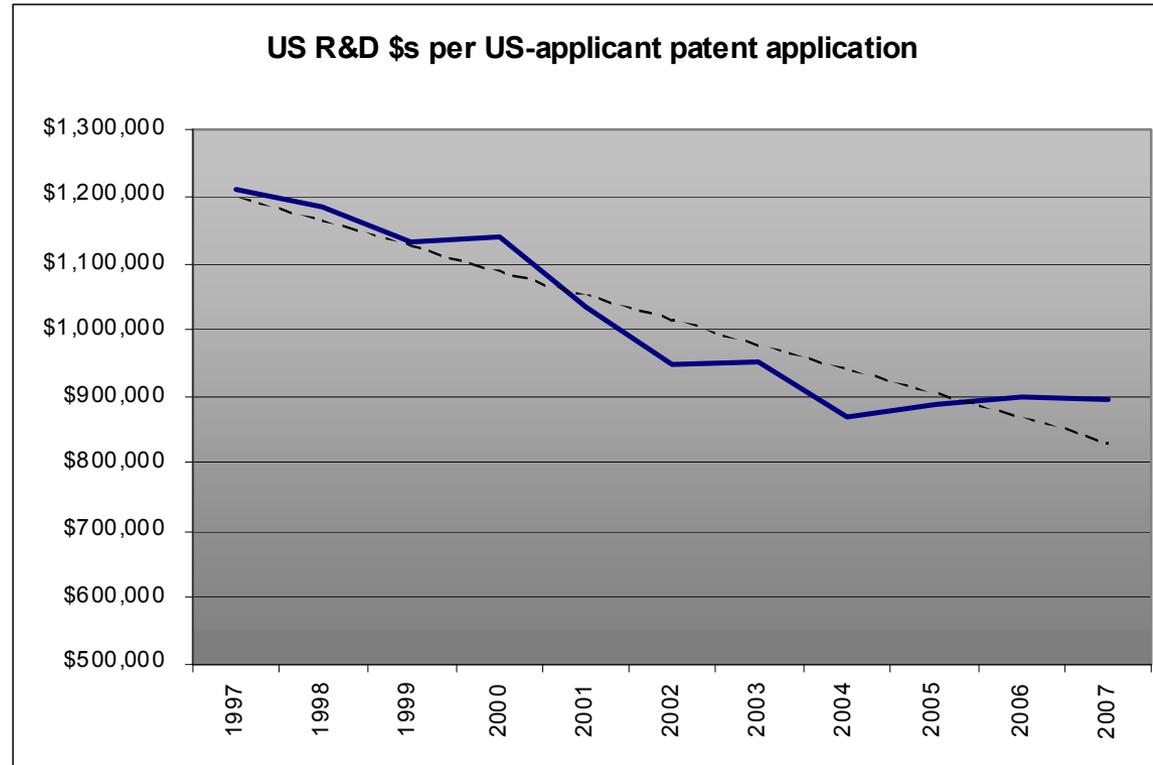
# Drive for more patents Irrespective of Innovation Levels



 **No correlation between US R&D (innovation) and patent filings**



# Quality: determined by the inventions going into the system



**25% decrease in “innovation \$s” per patent application in a decade**



# Quality: impacted by preparation effort

Patent Preparation	2000	2002	2004	2006	2008	Change 2000 to 2008
Relatively complex electrical/computer application	\$9,970	\$9,995	\$10,000	\$10,000	\$10,000	0%
Median IP Billing Rates	\$210	\$225	\$270	\$275	\$300	43%
Ave. hrs per application (Ave cost/Median Rates)	47	44	37	36	33	(14.1)
Percentage decrease in hours into a patent application						-30%

Source: AIPLA: Report of the Economic Survey 2007 and 2009

**A 30% decrease in quality?**



# What the USPTO can do to address the corporate Patent Elephant

- ➡ Change the Executive mentality
- ➡ Long pendency is not always so bad
- ➡ Quality vs. Quantity with fee structures



# Use the “Bully Pulpit”

Get the message out that Patent #s ≠ Innovation

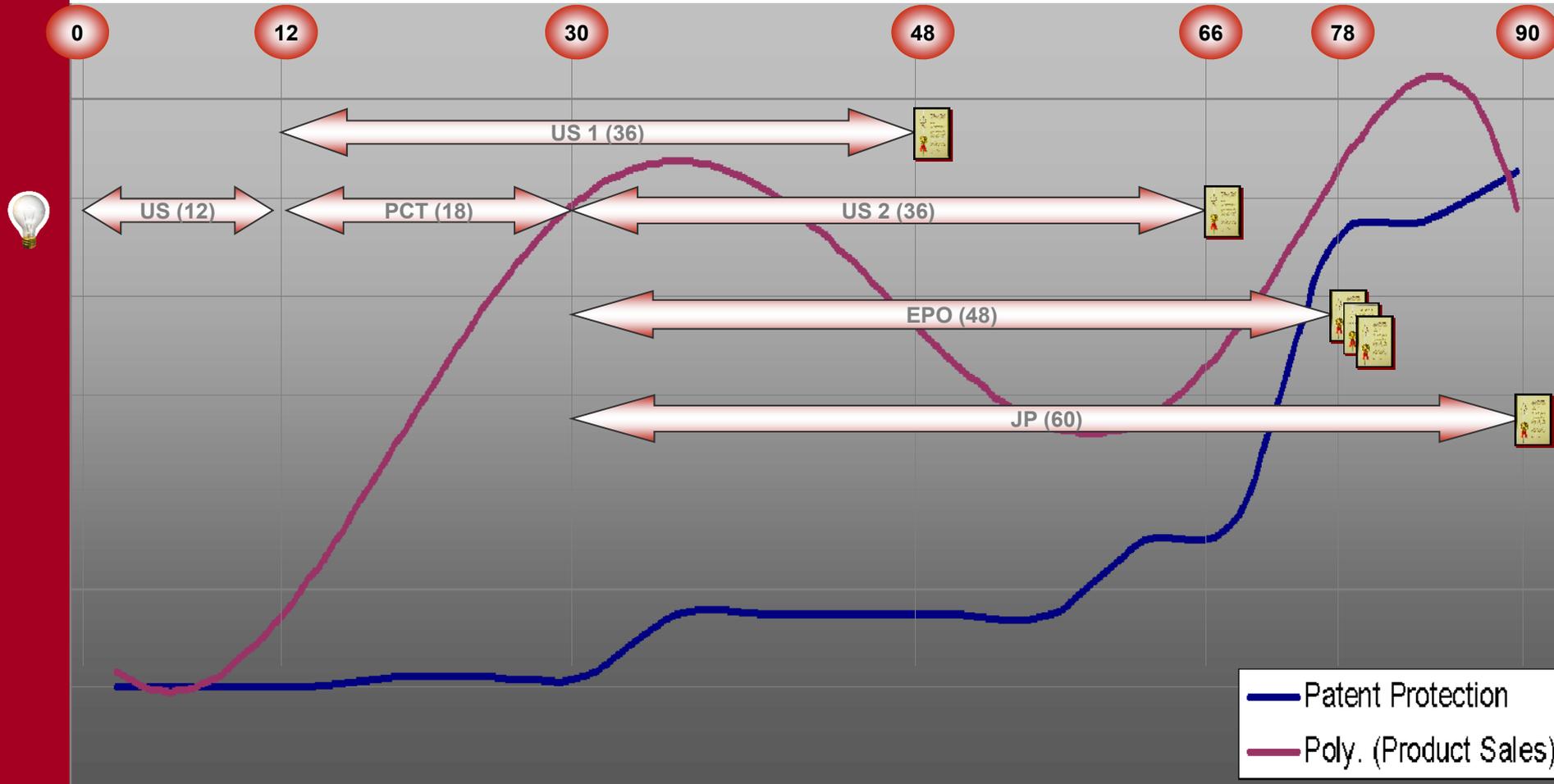
- Corporate Executives
- News Media
- Politicians

 Reframe the discussion



# Pendency is not always a bad thing

## Get the message out



# A Radical Proposal...

## Fee structures to incentivize behavior

	US	EU/EP	US vs. EU/EP
GDP	\$ 14.2 Trillion	\$ 18.4 Trillion	77%
Population	304 million	499 million	75%
Renewals/ Annuities	\$7,570	≈ \$26,000	≈ 29%
Filing + Search + Examination	≈ \$1,100	≈ \$4,200	≈ 26%

**75% of the economy, and a quarter of the cost....that's a real bargain**



# Is this really so radical?

- It will weed out most low quality filings
- It will certainly cut unnecessary continuations
  - No need for “new rules”
- More revenue per filing + More examiner time per application = better quality
- Patents will achieve their prestige again
- Maybe, just maybe, it will help with the looming budget crisis.



# A final thought...

*Our “system is perfectly designed to produce the results [we] are getting”*

Fredrick Taylor (1856-1915)



# What we'd all like to end up with



Our interests should all be aligned – we have to have quality patents for the US to remain competitive

US patent applicants carry an equal, if not greater burden to assure quality patents

The USPTO can help with that.



# Thank You

## **Craig P. Opperman**

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2009/2010 IAM 250 - *The world's top 250 IP Strategists*

20+ years of U.S., European and Asian Legal, Business Executive & Engineering experience.

University of Cape Town 1984 B.S. Engineering

University of South Africa 1989 J.D.

Stanford Business School 2000 SEP.



# The elephant in the room

The United States is in the grip of an expensive, low-quality, patent-relevance, patent-production crisis

By Craig P Opperman

American corporate patent portfolios are in crisis. Applications have less than a 50% success rate, 25% yield patents valuable enough to keep, quality is low, most patents are marginally relevant, portfolios are bloated and costs are skyrocketing. Of course, no one is telling the CEO. Still, we should all be concerned. If getting patents were a product business, that business would be in serious trouble. It has a high product failure rate, and patent dollars are being squandered. Marginally relevant, and low-quality patents mean inadequate protection for corporate innovations. This at a time when patent rights are being eroded dramatically and when only the strongest patents will survive. There must be a better way.

## The elephant identified

Fundamentally, patents are assets. Their primary purpose is to protect the innovations underpinning company business. They should be able to function as barriers to entry, withstand competitor scrutiny and, if needs be, survive the rigours of a multimillion-dollar lawsuit. In theory, patents should be robust and valuable assets. In practice, however, the numbers suggest that today's US patent portfolios, while not quite toxic, are performing poorly.

## Low success rate

As shown in Graph 1, for every US patent application filed today, fewer than half will issue as patents, down 30% from less than a

decade ago. Of the 50% that issue as patents, more than half are abandoned as useless by their owners. In dollar terms, this means that 50% of a US patent budget yields patents and less than 25% yields patents valuable enough to support a small maintenance fee investment. These are atrocious statistics.

It would be wrong to blame unreasonable patent examiners for low allowance rates. To be sure, examiners are more cautious today about granting broad patents. But that does not make them unreasonable. The fact is that 69% of their appealed decisions are upheld by the Board of Patent Appeals. And it is not just that the Board is supporting the examiners. From October 2007 to January 2009, the US Federal Circuit upheld 24 of the 26 appeals from the Board. So low allowance rates have to be because of something else.

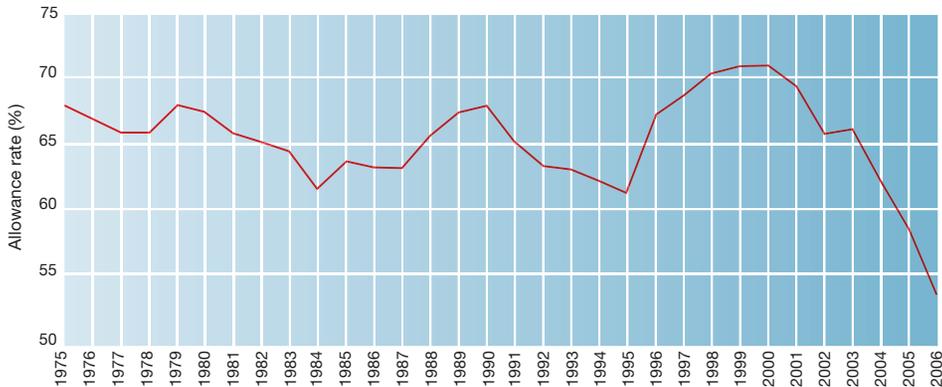
## Low quality

Indications are that low allowance rates are caused by poor-quality patent applications – cheaply put together documents attempting to protect marginal innovations. The US Patent and Trademark Office (USPTO) certainly thinks so. It identified “the quality of the applications received” as a cause. Dudas, the former USPTO Director, went even further, saying “We’ve seen a problem with quality” and questioning whether the US patent system is “making it too easy for people who want to file poor applications?”

## Marginal relevance

Those poor-quality applications that issue lead to poor-quality patents. As the 50% abandonment rate suggests, many of these patents have little or no value. Consider that on average, one US originated patent application is filed for every US\$900,000 in

Graph 1. US patent allowance rate



Source: USPTO

US R&D expenditure. If only 50% issue as patents, each patent is supported by and should protect about US\$1.8 million in R&D. Yet more than half of these patents are not valuable enough to justify a total of US\$7,570, a mere 0.4% of the underlying R&D dollars, in maintenance fees. Indeed, 17% are not even valuable enough to support the first US\$980 maintenance fee investment.

**High costs**

To add insult to injury, these low-quality, marginally relevant patents result in portfolios that cost a lot more than necessary. Many low-quality patents are produced by the high-volume process discussed below. This has led to hugely bloated corporate patent portfolios, all carrying with them massive non-US filing, maintenance fee and annuity payment burdens. High-volume filing decisions made a decade ago have caused exponential cost escalation. This has cost companies 30% to 40% more than developing much smaller, strategically relevant patent portfolios.

So that's the elephant: low success, low quality and marginal relevance, coupled with unnecessary high costs. Easy to demonstrate; but where does it originate and how do we deal with it?

**The origins of the elephant**

Analysis suggests that the elephant originates from a myopic focus on dramatically increasing patent application filings while simultaneously commoditising the patent production process. Because patents take years to issue, few are ever litigation-tested and almost no executives are interested in understanding patent documents. An environment exists in which

quantity dwarfs quality considerations, and in which patenting in the US has become a high-volume scatter-gun – rather than a targeted, strategic – exercise.

**Get more patents**

In the past 10 to 15 years, executive patent-focus has been almost exclusively on patent numbers, not quality or relevance. The unspoken business premise seems to be: "All patents are equal. Numbers are important. Let's get as many as we can." The result of this approach is well illustrated in Graph 2, which compares changes in US R&D spending to patent application filings. Unsurprisingly, R&D spending changes have followed economic cycles in the 1997 to 2007 decade. In contrast, patent application filings increased over the prior year in every year in that period. In two of the 10 years there was even an increase in patent filings when R&D decreased! Assuming some correlation between R&D expenditure and innovation, this decoupling of patent application filings and R&D expenditure must mean that patent application filings have been driven by a numbers, not a merit, focus.

Corporate ego may have something to do with it too, but this drive towards ever-increasing patent numbers seems to be based on two primary misconceptions: a safety-in-numbers theory; and a belief that patent numbers represent innovation levels. Both are silly notions.

The safety in numbers theory is seriously flawed. As any patent attorney will attest, all patents are not created equal. Patents are like weapons of war for protecting one's innovation territory and all weapons are not equal. Bad patents are like

bows and arrows. Good patents are like battle tanks. A few good tanks are far more valuable than thousands of bows and arrows. Bows and arrows are unlikely to win a modern war, irrespective of how many you have. Particularly in today's patent hostile world, where low quality and applicability are fatal. So relying purely on patent numbers makes little sense.

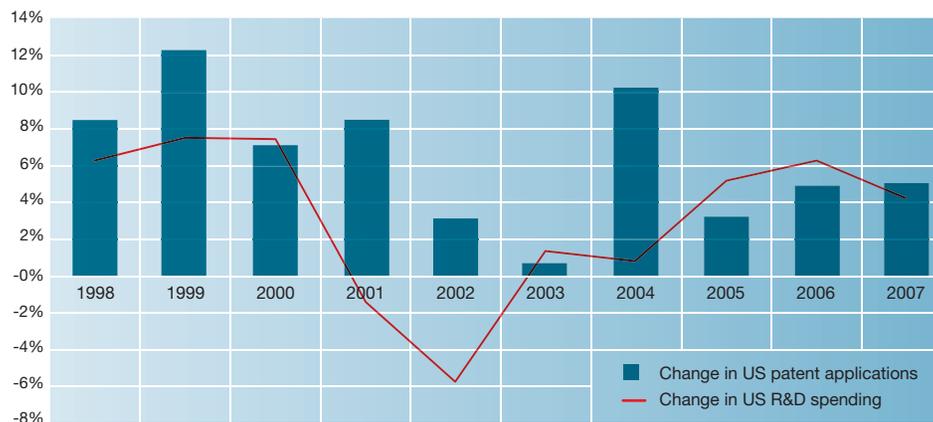
As for patent filings reflecting innovation levels, Graph 2 shows there is no correlation. Similar conclusions can be drawn from the US R&D dollars underpinning each US originated patent application. As shown in Graph 3, in 1997 it took US\$1,208,493 (in year 2000 R&D dollars) to generate one US patent application. In 2007 this was down 26% to US\$893,916 per filing. Again, assuming some correlation between R&D expenditure and innovation, this graph would suggest

something totally different from an increase in filings reflecting an increase in innovations. Interestingly, the percentage decrease in R&D dollars per patent application echoes closely the decrease in application allowance rates in the same period. This all suggests that, rather than a correlation between patent application filings and innovation, there is a much greater correlation between patent applications filings on increasingly less innovative concepts.

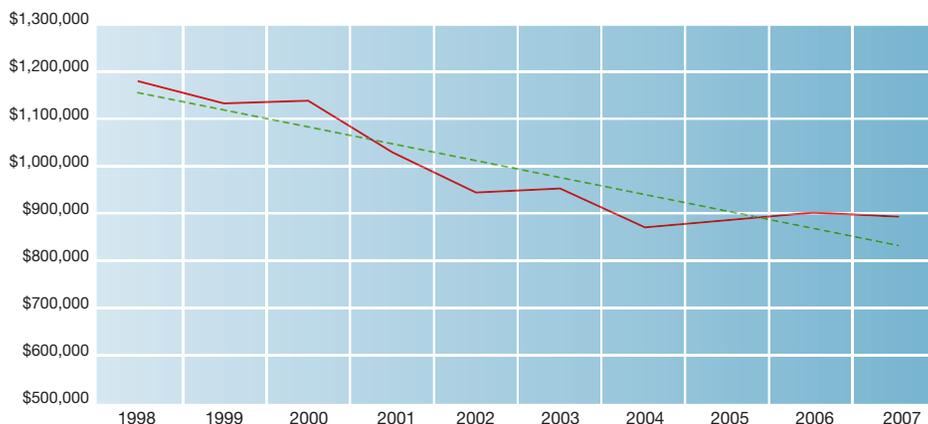
**The cheap is OK mentality**

As Graph 3 shows, corporate patent departments are ferreting out more and more invention disclosures irrespective of the underlying invention's value. Inevitably, the quality of the inventions going into the patenting process has decreased and patent relevance and quality have suffered.

Graph 2. Percentage changes in US R&D to US originated patent applications



Graph 3. US R&D dollars per US patent application



Source: USPTO's annual report (table 7) combined with US R&D data from <http://www.nsf.gov/statistics/infbrief/nsf08317/#tab1>

In parallel, patent departments, which are under tight budget scrutiny, have kept per-patent filing budgets at a point where it is almost impossible to produce a quality product. Everyone has realised – and many patent counsel are on record as saying – that their primary goal is to achieve as many patent application filings as possible for their limited patent budgets. Why wouldn't they? That's what they are being rewarded for doing. This "Cheap is OK" mentality has kept the average cost for filing a patent application or responding to a USPTO communication – the two places where quality and relevance can be effected – almost flat in the past decade.

The problem with this approach is illustrated in Table 1. Each year patent applications get about 5% less attorney attention than the year before. This is because US IP attorney billing rates increased 30% from 2000 to 2006, while patent application charges remained flat from 2000 to 2006. With rates going up there are only two ways to achieve this. Either attorneys spend fewer hours per project or less expensive attorneys do the work. Fewer hours mean less attention to detail or fewer pages in the patent application. Lower-cost attorneys are usually less experienced or qualified. Either way, quality suffers.

Patent managers will argue that they reduce costs by using attorneys in lower-cost geographic areas or in small, low-overhead firms. That approach has some merit, but it has limits. Even attorneys in low-cost geographies have increased their rates. Also, attorneys in low-cost geographies are often far from clients. This means that face-to-face meetings, so necessary for extracting valuable information from inventors, are minimised or even excluded. Certainly, patent relevance discussions with corporate strategists or marketing personnel are precluded. Unsurprisingly, both quality and relevance suffer.

**The patenting process**

Low relevance also derives from the patent production process. Corporate patenting processes are typically inventor-centric, not business-plan driven, making it almost impossible to control for relevance. Typically, the traditional process starts with an invention disclosure form filled out by an inventor describing what that inventor believes can be patented. Then, once that invention is approved for filing, a patent attorney prepares a patent application based on the inventor's description. Rarely, if ever, is there a serious discussion about the invention's relevance to the company's

Table 1. Cost of patent applications and average hourly billing rates

	2000	2002	2004	2006	Change 2000 to 2006
Relatively complex electrical/computer patent application	US\$9,970	US\$9,995	US\$10,000	US\$10,000	0%
Average IP billing rates	US\$210	US\$225	US\$270	US\$275	31%
Max hours @ average rates per application	47	44	37	36	-11 hours

Source: AIPLA's Economic Survey

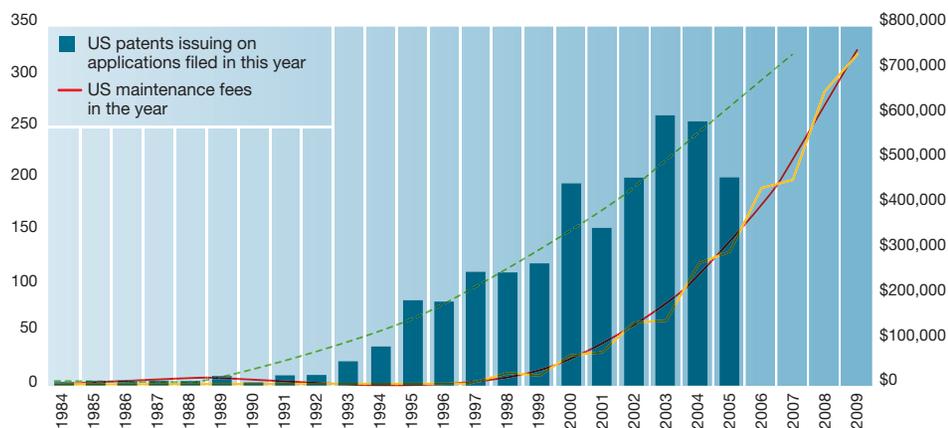
business plan before filing. After filing, the resulting patent application lies dormant in the USPTO for years before receiving the inevitable USPTO office action. This is addressed by the patent attorney and inventor who deal with the issues raised by the office action by adapting years-old patent claims to skirt around the USPTO's arguments. As before, this process rarely includes any control for the relevance to the company's then current marketplace or business plan.

Low quality, therefore, is driven by a fixation on patent numbers combined with shrinking per-patent budgets. Tight budgets mean that no one has the time to consider the relevance of a patent application. This is compounded by the patenting process. Thus, relevance suffers as well. In production terms, this means that the most important characteristic of the patent asset – ability to protect the company's business – is almost never vetted rigorously at any point during production.

Patent managers will argue that they and inventors review each patent application. That is probably true. But evaluation is usually done from a technical-merit and compliance-with-guidelines perspective and not from a corporate-strategy perspective. The reason is simple. In most companies reviewers are not privy to company strategy and most high-volume patent programmes preclude a detailed review relative to the marketplace or competitors' products. Moreover, most patent programmes do not involve corporate strategy and vision people in the patenting process. Thus, the chance of any innovation being patented in a way that is relevant to the company's business is extremely low.

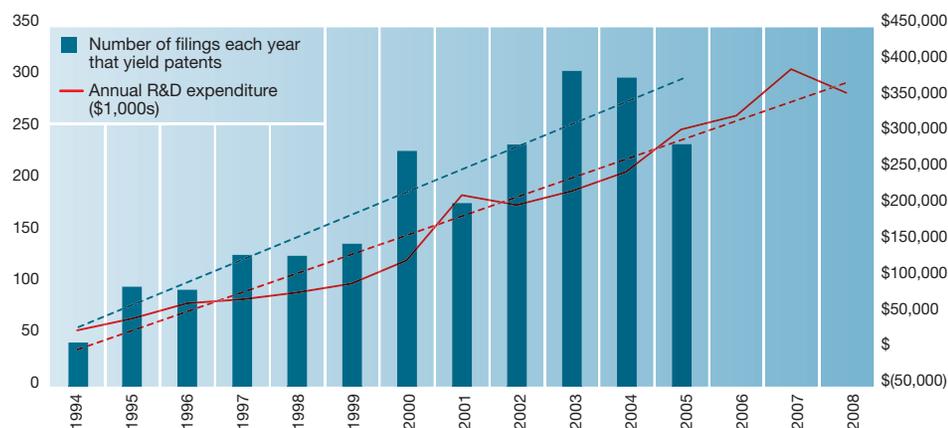
In summary, that's where the elephant comes from: increasingly large numbers of patent application filings irrespective of merit or underlying innovation; filings on shrinking per-patent budgets; and few, if any, business relevance checks in the process.

Graph 4. US patenting and maintenance fee trends



Source: Delphion

Graph 5. US R&D expenditure v successful US patent applications



Source: Delphion SEC filings

maintenance fee payment obligations. This is an unintended fallout from the earlier ramp-up in filings, and a parallel indicator for an elephant.

As a second step, compare patent filings to R&D expenditure. Graph 5 reveals that the Silicon Valley company's issued patents to R&D growth shows another classic elephant symptom. There is an obvious divergence between the trend lines for applications yielding patents and R&D.

The third step in the test for elephant symptoms is relatively simple. If the company relies heavily on solo practitioners, very small firms or firms remote from its innovation centres, it is likely to have elephant symptoms. Indeed, if it shows this tendency, the company probably has a late-stage elephant problem. It is using the last cost-cutting tool available to high filing volume patent programmes: moving to small or geographically less expensive firms to save costs.

**Dealing with the elephant**

Dealing with this elephant is not easy. First, one has to consider whether it is important enough to act, by asking the question: "Why patent?" If only for bragging rights, there is no reason to change the current patenting process. But then realise that the patent plaques adorning company walls are equivalent to artwork costing approximately US\$22,500 a square foot (a cheap patent costs about US\$15,000 to acquire. The commemorative plaque is about 0.75 square feet, yielding US\$22,500 per square foot. This is about twice as expensive as signed Picassos from his *Vollard Suite*). If, instead, companies want patents with a higher chance of protecting markets or for creating leverage over competitors, then their approach must be different.

**Quality over quantity**

Clearly, executives must realise that they have to move away from rushing to file patent applications for anything that may be patentable just to show large patent numbers. It also goes without saying that one has to move away from focusing on how cheaply patent applications get filed. Cheap patent applications become low quality patents with a slim chance of being relevant. Instead of focusing on costs per application, a cost-per-page metric is much better. It works well for a like-for-like comparison and also provides an incentive for more robust patent application documents.

**Do you have an elephant in your living room?**

Most companies will deny adamantly that they have a patent programme elephant. They may be correct. Still, in this day and age of banking stress tests, there is a simple three-part stress test for elephant symptoms.

As a first step, test for a big ramp-up in patent filings in the past 10 to 15 years. Graph 4, drawn from publically available information for a well-known Silicon Valley company, shows the elephant's characteristic exponential increase in patent application filings (Note: this graph is only for applications that yielded issued patents. It is reasonable to assume that this company's total patent application filings had an even steeper ramp-up). A corollary to the filing ramp-up is the delayed and even steeper growth in

## “ Mapping is non-trivial. It costs about US\$750 per patent, but the investment is absolutely worth it ”

### Selecting for relevance

Selecting which invention is submitted for patenting and ensuring quality and relevance are, of course, similarly important. There are a few simple steps one can take to do so. Inventors – as a general rule – are not usually the best people to predict what is relevant to a market or business plan. Corporate strategists are invariably better. Thus, companies have to retool patent programmes to use their corporate business plans as filters for which inventions get the nod for patenting. Turning the process upside down allows company strategists to educate technologists about the business plan and corporate strategy, and suggest where and what areas should be focused on for identifying inventions.

Armed with this knowledge, inventors, who are very smart people, can then select inventions based on relevance, not merely cleverness. When invention disclosure forms specifically point to the invention's fit with the business plan/corporate strategy, the patent committee can evaluate the invention based on relevance to the business plan as opposed to a vacuum. Patent attorneys can then draft patent applications with the business plan in mind, and the in-house patent department and inventors can specifically reference the business plan when reviewing drafts. Years later, when those patent applications receive office actions from the USPTO, the process must be repeated and all actions – evaluations, amendments, arguments and so on – be based on the – then current business plan. Importantly, the company's patent files will always reflect the relevance of each patent application and subsequent patent to the company's business plan.

Obviously, this process is very different from what has been the norm for years and must be accompanied with a real focus on quality and a commensurate increase in the amount of technical disclosure in each application. This will allow for later claiming flexibility (if one has a skimpy, small patent application, one is very constrained in how the patent claims can be modified during prosecution to allow for business relevance). Claims will have to be drafted with likelihood of market coverage in mind. There will have

to be broad and narrow claims of different types, good prior art citations and clean file histories. Conducting pre-filing patentability searches may become the norm again. Importantly, in-house patent managers will have to think like businesspeople. Outside patent attorneys will have to be educated about business plans. It may even change the type of inside and outside patent attorneys that get hired. These shifts may even require the use of an outside change agent. The results, however, will be hugely beneficial.

### File far fewer applications

Far fewer applications will get filed – perhaps 50% fewer. Each filing will cost two or three times what companies currently pay. In exchange, and because 60+% of patent portfolio external costs are not US attorney fees, patent portfolio costs can be reduced by 30% to 40%; administrative overheads will come down; and, importantly, every patent will have a demonstrable relevance to the company's business. Because of this focus and attention to detail, patent quality will increase significantly.

### Clean out that Junk

That, of course, begs the question: “What should companies do about all the patents that already exist?” The answer is reasonably simple. Work out what is relevant by mapping each patent and application to the market and competitors. Anything that is found wanting should be evaluated for moving out of the company, either by sale or by abandonment. Mapping is non-trivial. It costs about US\$750 per patent, but the investment is absolutely worth it. Mapping costs represent only about 2.5% to 5% of the mapped patent's acquisition costs. In the Silicon Valley company case study above, mapping could save 30% to 40% of 2009 maintenance fees if as few as 15% to 20% of the patents are cleared out. In that case, the mapping investment costs are recouped in two years. The added benefit, of course, is that a mapped portfolio leads to knowledge about each patent's specific relevance, which in turn leads to much better decision making later on.

### Change of culture

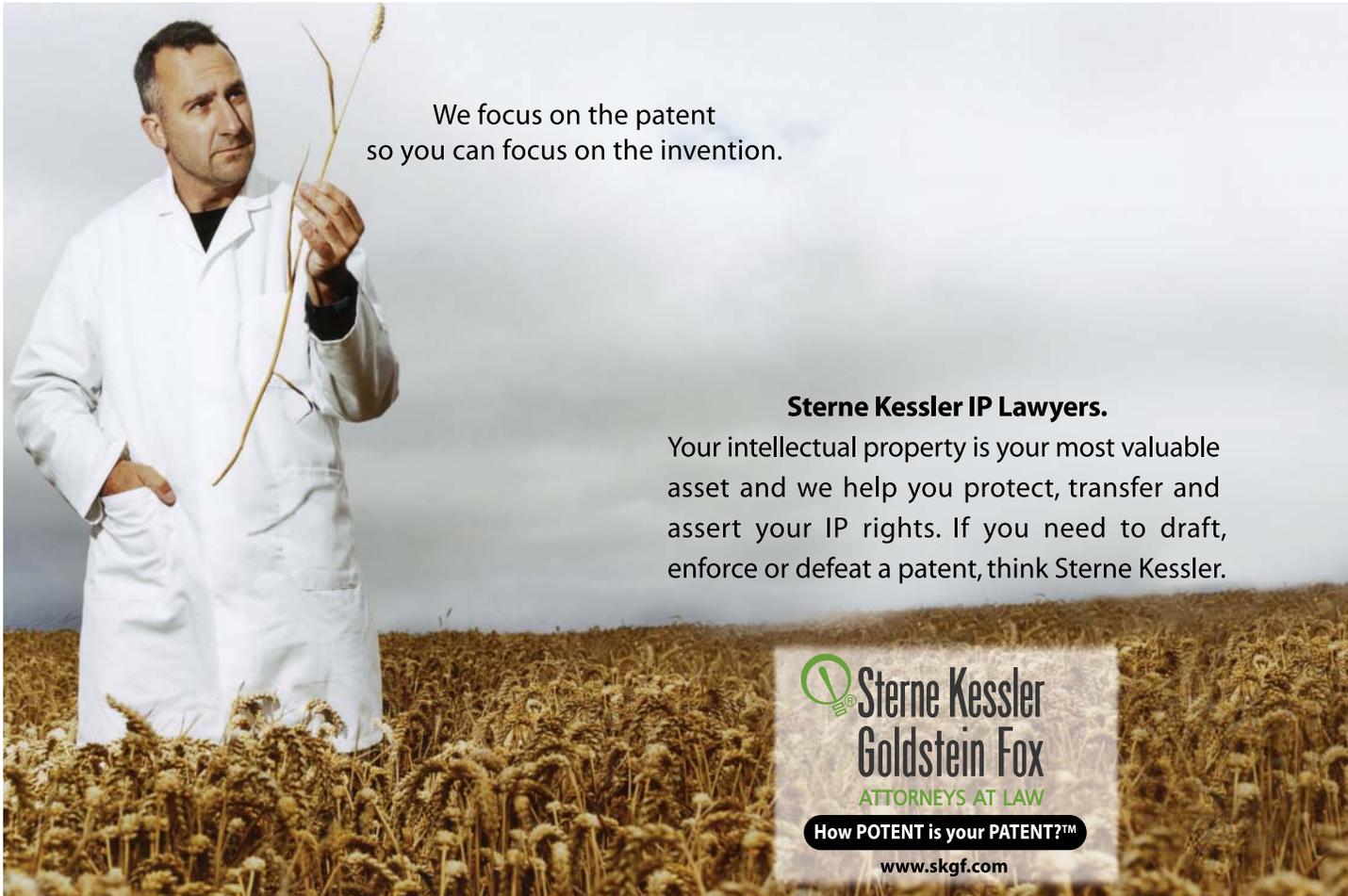
The statistics illustrating and the causes of

the quality and relevance crisis are easy to identify. Fixing the problem is much more difficult. Truth be told, most patent programmes make it very difficult to get patents that are relevant to the company's business, except by chance. Correcting that will require a paradigm shift in how companies approach obtaining patents. It is likely that an outside change agent — someone who understands in-house processes, can talk to C-level executives and thinks about patents as assets — may be necessary to effect change. Either way, companies will have to move away from focusing on patent numbers and instead ask: "What's the demonstrated relevance of each particular patent to my business?" The answer cannot be the usual patent attorney platitude about how patents protect the company's products. There has to be a clearly identified relevance; otherwise companies are just wasting money. Every company should aim to be in a position to show exactly — with specific reference to the patent claim language — which product, feature, market segment or competitor's product that patent

covers. If not, what is the point of the patent?

It is unlikely that this article will appeal to in-house patent counsel in companies characterised by large numbers of cheap patents. Nor will it appeal to those who service these companies. Most good patent attorneys will be able to pick away at or differentiate their portfolios over the numbers in this article. I'd be surprised if they couldn't do that. After all, that is what good patent attorneys do — find often small differentiations that allow them to support a patentability argument. But maybe, just maybe, the central theme of this article — that there is a much less expensive way of getting (fewer) higher-quality, more business-relevant patents — will resonate with C-level executives, especially in these cash-constrained times. **iam**

**Craig P Opperman** is founding partner of the IP practice in Reed Smith LLC's Silicon Valley Office. He is a former general counsel and chief IP officer. The views in this article are his alone and not necessarily those of Reed Smith, its attorneys or its clients



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so you can focus on the invention.

### Sterne Kessler IP Lawyers.

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Craig is a partner in Reed Smith's Intellectual Property Group in the firm's Silicon Valley office. He brings more than 20 years of U.S., European and Asian high-tech, clean-tech and medical device experience to his practice, and draws on his extensive legal and corporate executive experience to provide services centered on intellectual property as a strategic corporate asset. His clients – from start-ups to Fortune 500-sized companies – engage him to help design, build, defend against and leverage IP assets.

Craig has spent most of his career in Silicon Valley, after moving there from his native South Africa in 1991. Prior to joining Reed Smith, he was a partner at Morgan Lewis & Bockius and before that was General Counsel, SVP Strategy and Chief IP Officer of Health Hero Network, Inc., a maker of remote patient monitoring systems. At Health Hero, he managed and continued to build out a patent portfolio rated by a joint MIT / CHI Research study as one of the top 15 most cited IT patent portfolios in 2003. Prior to being at Health Hero, he was Chief IP Officer of NASDAQ-listed, interactive-TV company OpenTV, Inc. and its controlling shareholder, Dutch-based MIH Limited. At Open-TV, he developed the well-publicized patent strategy to protect OpenTV's rights to its "one-click shopping" innovations that pre-dated those of Amazon.com by more than three years. From 1994 to 2000, he was at Cooley Godward Kronish, where he was a partner from 1996.

During his career, Craig has worked with and represented clients in a number of industries, including clean-tech, software, the Internet, e-commerce, interactive TV, pay-TV, instant messaging, video conferencing, conditional access, medical devices, disease management, digital health, and semi-conductors. Clients increasingly recognize that intellectual property in isolation is not very useful, and Craig's practice specializes in helping clients couple their IP with their business strategy by integrating the three pillars of the IP asset—designing & building portfolios, leveraging IP, and managing IP risks and controversies—in a business-centric manner.

Craig is a Stanford Business School SEP alumnus, holds Law and Engineering degrees from the



Universities of South Africa and Cape Town respectively, is a graduate of the South African Naval Academy, and is a registered patent attorney in both the United States and South Africa. He regularly publishes and is invited to speak on intellectual property issues. Craig is admitted to practice in California and South Africa, and before the U.S. and South African Patent Offices.

## Publications

- "The patent system on trial and under attack," written debate with the authors of "Patent Failure," James Bessen and Michael Meurer, *Intellectual Property Magazine*, October/November 2008
- "Getting less for more," with Carina M. Tan, *Intellectual Property Magazine*, December/January 2008
- "Slugging it out over Software," written debate with Jason Schultz from the Electronic Freedom Foundation, *Intellectual Property Magazine*, April/May 2005
- "Folly of legislating against software patents," *Intellectual Property Magazine*, December/January 2005
- "A tale full of sound and fury, signifying nothing – the European software patent debate," *Intellectual Asset Management*, August/September 2004
- "Location, Location, Location," *Intellectual Asset Management*, April/May 2004
- "Patent Time Bombs," *Intellectual Asset Management*, February/March 2004
- "Do Patents Really Make a Difference to Stock Price?" *Intellectual Property Today*, February 2002
- Preface to: *The Internet & the Law in South Africa*; edited by Reinhardt Buys; van Schaik Publishers; 2000
- "Using the PCT Process to Your Clients' Advantage," *Intellectual Property Today*, December 1999
- "Limits on Medical Procedures Patents," *New Matter*, Vol. 21, No. 3; 1996
- "U.S. Patent Law's New Face: Implications for Australia's American Patent Portfolios," *Australian Intellectual Property Journal*, Vol. 6, No. 4; November 1995
- "U.S. Patent Law's New Face," *The Computer Lawyer*, Vol. 12, No. 3; March 1995

## Speeches / Presentations

- Guest Lecturer on Intellectual Property at Stanford University's Engineering School (2000 to date)
- "Managing the Inevitable Upcoming IP Challenges in e-Health," presented at the Disease Management Association of America's Disease Management Leadership Forum, Orlando, October 2004
- "How Intellectual Property Can Change the Balance of Competitive Power Among the Makers of Healthcare Unbound Technologies," Healthcare Unbound Conference, Boston, July 9, 2004
- "Determining The Value and Impact of Patents and Other Intellectual Property in Telehealth," American Telehealth Association Conference, Tampa, Fla., May 2004



- "Negotiating Strategies for IP transactions," Licensing Executives Society (LES), Silicon Valley, Calif., Spring 2003
- "Intellectual Property valuations and evaluations," Licensing Executives Society (LES) Silicon Valley, Calif., Spring 2003
- PLI's 21st Annual Institute on Computer Law, "Business Method Patents (Enter the Debate or Seize the Opportunity?)" Spring 2001
- DVB (Digital Video Broadcasting) International Conference, speaking on the conflict between the DVB/MHP standard, its IP regime and IP rights, Dublin, Ireland, March 2001
- PLI: Conference on "e-Commerce, Strategies for Success in the Digital Economy," September 2000
- Glasser Legal Works: Conference on "Patenting the com in .com," Spring 2000
- PLI's 20th Annual Institute on Computer Law, "Computer Technology Patents ...," March 2000
- SC13, "Bargaining for Inevitable Harmonization," co-panelist with Lawrence J. Goffney, Deputy Commissioner for Patents, and Stephen Kunin, Deputy Assistant Commissioner for Patents during a "Washington Meets the West" Seminar in Sunnyvale, Calif., January 1996

## Experience

2008 Reed Smith

2004 Morgan Lewis & Bockius

Health Hero Network

General Counsel, SVP Strategy and Chief IP Officer

OpenTV, Inc.

Chief IP Officer

## Legal Education

1989 BProc., University of South Africa

## Graduate Education

2001 Stanford University Graduate School of Business  
Stanford Executive Program

## Undergraduate Education

1984 B.Sc. Engineering, University of Cape Town, South Africa



## **Professional Admissions / Qualifications**

- California
- South Africa
- U.S. Patent and Trademark Office

## **Honors and Recognitions**

- Named as one of *Intellectual Asset Management Magazine's* "Top 250 Leading IP Strategists" (2009).