

INSURANCE IP BULLETIN

An Information Bulletin on Intellectual Property activities in the insurance industry

A Publication of - Tom Bakos Consulting, Inc. and Markets, Patents and Alliances, LLC

Introduction

In this issue's feature article, *Speculation, Breakthroughs, and Abandonment*, Mark Nowotarski looks at statistical information drawn from the Patent Information and Retrieval System (PAIR) in order to classify patents and as a way to estimate potential commercial value.

In our **Patent Q/A**, *Declaratory Judgments*, we look at how you can file a lawsuit in Federal Court to have a patent declared invalid. Progressive Casualty Insurance just initiated one of these lawsuits to invalidate several patents that were seen as a threat to its MyRate™ Usage Based Car Insurance plans.

The Statistics section updates the current status of issued US patents and published patent applications in the insurance class (i.e. 705/004). We also provide a link to the **Insurance IP Supplement** with more detailed information on recently published patent applications and issued patents.

Our mission is to provide our readers with useful information on how intellectual property in the insurance industry can be and is being protected – primarily through the use of patents. We will provide a forum in which insurance IP leaders can share the challenges they have faced and the solutions they have developed for incorporating patents into their corporate culture.

Please use the FEEDBACK link to provide us with your comments or suggestions. Use QUESTIONS for any inquiries. To be added to the Insurance IP Bulletin e-mail distribution list, click on ADD ME. To be removed from our distribution list, click on REMOVE ME.

Thanks,

Tom Bakos & Mark Nowotarski

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Feature Article

Speculation, Breakthroughs, and Abandonment

By: Mark Nowotarski, President – Markets, Patents & Alliances LLC

Everyone thinks they have a great idea when they file a patent application. Some applications, however, are more speculative than others. We propose that the rate at which patent applications are abandoned is a reliable measure of just how speculative a given portfolio of applications is. We also propose that breakthrough inventions are more likely to be found in highly speculative portfolios, such as groups of insurance and finance patent applications, than in less speculative portfolios with lower abandonment rates. We support these propositions with data from the patent office's PAIR data set.

The abandon rate of a portfolio of applications can be quantified by "abandons per office action". Abandons per office action is the ratio of the total number of abandons to total number of office actions in a given portfolio. "Abandons" means failure of an applicant to respond to an office action in the statutory time period allowed for response. It also includes express abandonments made at the applicant's own initiative. "Office actions" includes all correspondence from the patent office to the applicant that has a deadline for response. Office actions with response deadlines include restriction requirements, rejections of claims and notices of allowance.

The data on abandons and office actions for a given portfolio of applications can be found in the USPTO's [Patent Application Information Retrieval](#) system (PAIR). Data for each individual application in a portfolio is retrieved by entering the application's serial number or publication number. The status of an application (e.g. patented, abandoned, etc.) is found on the "Application Data" tab. A listing of the office actions is found on the "Transaction History" tab. The office actions can then be counted. Office actions for still pending applications and issued patents are counted since each of these office actions could have led to an abandonment.

The average abandons per office action for US utility patent applications is 0.1. This means that one application is abandoned for every 10 office actions in an average portfolio. We examined a random sample of 400 applications filed over the past ten years to determine this ratio. Abandons per office action has remained fairly constant over this time period.

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Abandons per office action can be interpreted as a level of speculation in applications. Applications that have high abandon rates are highly speculative. Most of the inventions described in these applications ultimately have little commercial value and the applications are abandoned quickly. If a portfolio of speculative applications as a whole, however, has commercial value, then that value is concentrated in a few “breakthrough” applications. For some investors, this is a very desirable characteristic and they may wish to seek out portfolios with high abandon ratios.

Applications with low abandons per action cover inventions that are more incremental in nature. Their future commercial value is more predictable and stable. As time goes on, fewer drop out. If the portfolio as a whole has value, then the value is more evenly distributed among the individual applications and there are fewer breakthroughs. An even distribution of value can be a very desirable characteristic for other investors who are looking for more stable “returns on innovation”. Investors of this sort may wish to seek out portfolios with low abandon ratios.

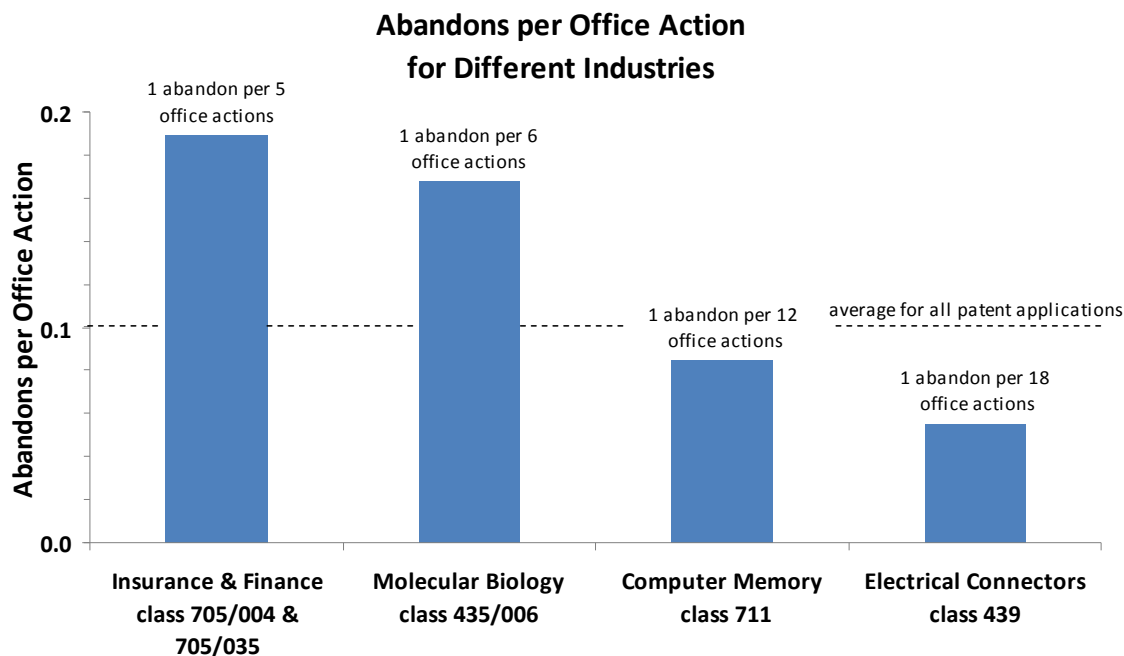


Fig. 1

Figure 1 shows how average abandons per actions vary for different industries. Insurance & Finance and Molecular Biology applications are abandoned at a relatively high rate. These are very speculative areas where most inventions don’t pan out, but the ones that do can be extremely valuable. Pharmaceutical companies, for example, file thousands of applications on

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initially promising compounds and then rigorously weed those out to a remaining handful that cover compounds that become approved drugs. Each one of these remaining compounds can be a billion dollar invention, but it takes an initially large portfolio of very speculative compounds to capture them.

Insurance and finance inventions are also highly speculative. Most of these inventions fail, but some have gone on to impact entire economies. Witness the dot com revolution of the 1990s which was largely driven by patented financial business method inventions such as eBay, Priceline, and Amazon.

Computer memory and electrical connector inventions have lower than average abandons per action. Inventions in these fields over the past decade have tended to be incremental. It's been a while, for example, since anyone has invented anything in these fields as fundamental as the transistor or microprocessor.

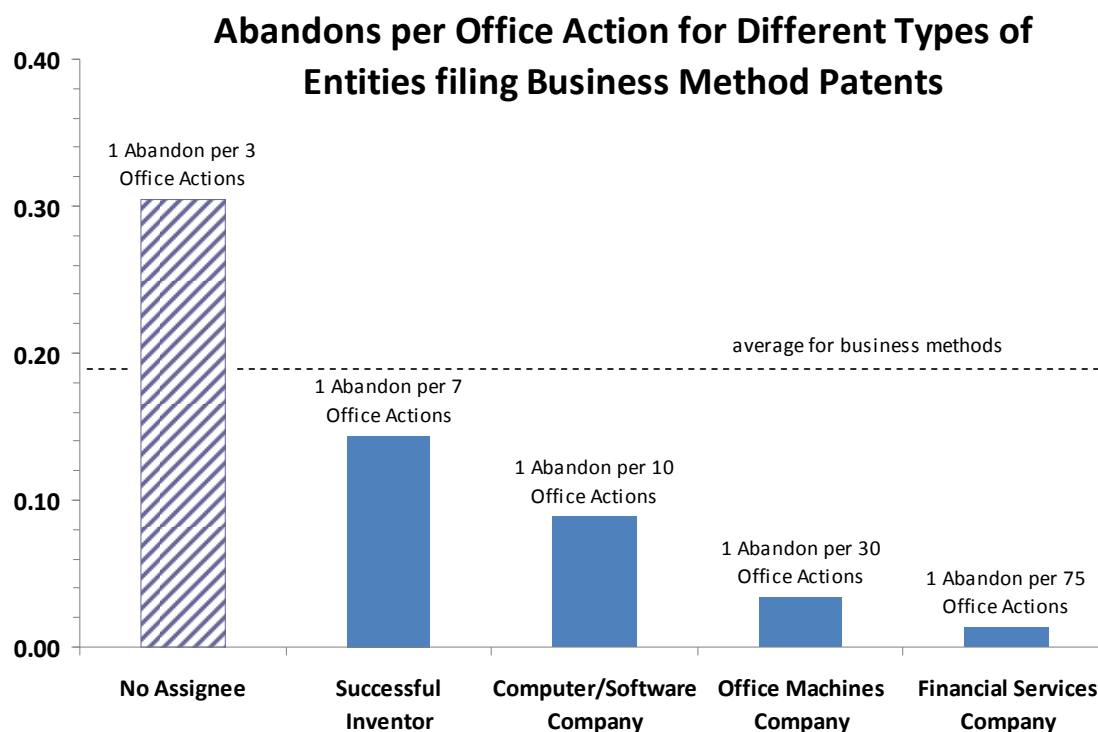


Fig. 2

The level of speculation in a given portfolio of patent applications is a strong function of who is filing them. Figure 2 compares the abandons per action for different entities in the field of

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business methods (class 705). Data for three major companies is shown along with that of a successful individual inventor and a large group of independent inventors collectively referred to as “no assignee”.

The major companies include a computer/software company, an office machines company and a financial services company. Each of these companies has filed hundreds of business method applications. The successful inventor has also filed several hundred applications over the past decade. His portfolio is currently valued somewhere in the nine figures. Companies spun off from this portfolio have gone on to significantly impact our economy.

“No assignee” accounts for 30% of the applications in business methods. The data bar is shown striped as opposed to solid to indicate that it is a collection of entities. We don’t know of any billion dollar inventions in this group (yet), but some of these applications have gone on to be enforceable patents with \$80+ million litigation judgments assessed against infringers.

The computer/software, office machines and financial services companies present a spectrum of increasing conservatism as reflected in their increasingly lower abandons per office action ratios. The computer/software company and office machines company each have formal programs for reviewing their pending applications and abandoning them when their value doesn’t prove out. This even occasionally includes abandoning an application after a notice of allowance. The Financial Services company, on the other hand, has an abandon rate that is so low that it suggests that no review at all is done of ongoing application value. Once the decision is made to file, it appears as if its outside counsel is authorized to prosecute to an allowance no matter how long it takes. Several of this company’s applications have had 10 or more rejections and still outside counsel continues to prosecute. Companies with abandon rates this low might do well to develop policies and procedures to thin out their applications and focus on the inventions that have proven significant value.

Abandons per office action is a powerful metric for assessing the speculative nature of a given portfolio of patent applications. High ratios correspond to highly speculative ideas. Low ratios correspond to more conservative ideas. Investors looking to find breakthrough ideas, might do well to examine portfolios with high abandons per action. Investors looking for more stable returns on innovation might do well to examine portfolios with low abandons per action. Entities with exceptionally low abandon rates should perhaps develop policies and procedures to more realistically assess the ongoing value of their innovations and thin out those that don’t fulfill their initial promise so that they can focus on those that do.

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Patent Q & A

Declaratory Judgments

Question: What is a “declaratory judgment” and how does it protect my freedom to offer an insurance product in the market that might violate someone else’s issued patent?

Disclaimer: *The answer below is a discussion of typical practices and is not to be construed as legal advice of any kind. Readers are encouraged to consult with qualified counsel to answer their personal legal questions.*

Answer: An individual or a company with a product it fears may at some point in the future be alleged to violate another’s patent may find the uncertainty in that situation relieved through a declaratory judgment. Rather than wait (perhaps years) for a lawsuit alleging infringement to be filed, the individual or company can instead force the issue and seek a court ruling (i.e., a declaratory judgment) through which a US District Court declares the rights, duties, and obligations of the parties involved. Typically, in a potential patent infringement case the remedies sought through a declaratory judgment are either that there is no infringement or that the patent or patents involved are invalid and, therefore, unenforceable.

For Example: Progressive Casualty Insurance currently markets automobile insurance products under the brand [MyRate](#) which bases auto insurance premiums on driver behavior as measured by a device plugged into the automobile’s onboard diagnostic system. The device measures and reports on driver characteristics which are used by Progressive to calculate usage based premium rates and also to provide information to the driver that may promote safer driving.

Progressive has a number of patents on the premium rating technology but it relies on other companies to manufacture the devices which do the actual measurement used to determine rates. In particular, [Xirgo Technologies](#), LLC provides vehicle monitoring products relied on by Progressive’s usage based [MyRate](#) insurance program.

Another company, [Hughes Telematics, Inc.](#) (HTI), also provides electronic systems for cars – so called *telematic* systems – which link the driver, car, and external data services through cellular web portals to enhance safety, security, convenience, and provide maintenance and information services. HTI has a number of patents which it has alleged through HTI IP, LLC that Xirgo Technologies and others have infringed.

Since Progressive relies on, that is, uses devices provided by Xirgo in its usage based insurance pricing system, it and its customers who have the devices installed in their cars could

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potentially be infringing HTI's patents. However, there is no way to tell when HTI might bring a patent infringement lawsuit against Progressive and until then, as long as Progressive continues to offer its **MyRate** product, it potentially continues to accrue monetary damages. Furthermore, since Progressive knows about the HTI patents, those damages could be trebled for "willful infringement". HTI might also directly sue Progressive's larger customers, such as fleet operators.

Instead of waiting for the ax to fall, Progressive filed a [Complaint for Declaratory Judgment](#). In this complaint Progressive asks the court to declare the three patents owned by HTI LP, LLC which affect Progressive's business to be invalid. Thus, a declaratory judgment does not specify that any particular action be taken. It is merely a legally binding opinion expressed by the judge of an appropriate court with jurisdiction. Whatever the outcome (Progressive presumably hopes the judge would rule the HTI IP, LLC patents to be invalid), the uncertainty of the situation would be removed.

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Statistics

An Update on Current Patent Activity

The table below provides the latest statistics in overall class 705 and subclass 4. The data shows issued patents and published patent applications for this class and subclass.

Issued Patents as of 10/31/2010		
	Class 705	Subclass 4
YEAR	#	#
2010	4,429	224
2009	3,007	78
2008	2,642	89
2007	2,050	43
2006	2,201	44
2005	1,434	30
2004	990	24
2003	950	21
2002	879	15
2001	868	19
2000	1,058	29
1999	1,002	36
1998	738	21
1978-1997	2,768	47
1976-1977	80	0
TOTAL	25,096	720

Published Patent <u>Applications</u> as of 10/31/2010		
	Class 705	Subclass 4
YEAR	#	#
2010	6,783	202
2009	8,470	283
2008	8,648	203
2007	6,888	191
2006	5,978	176
2005	6,154	153
2004	5,491	160
2003	5,906	133
2002	6,040	168
2001 *	1,319	30
TOTAL	61,677	1,699

* Patent applications were first published 18 months after filing beginning with filings dated March 15, 2001.

Class 705 is defined as: DATA PROCESSING: FINANCIAL, BUSINESS PRACTICE, MANAGEMENT, OR COST/PRICE DETERMINATION.

Subclass 4 is used to identify claims in class 705 which are related to: *Insurance* (e.g., computer implemented system or method for writing insurance policy, processing insurance claim, etc.).

NOTE: Patent and Patent Application totals may be different than in prior Bulletins due to USPTO reclassification.

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Issued Patents

In class 705/4, **40** new patents have been issued in the last two months. Patents are issued on Tuesdays each week. There has been an upswing in the number of issued patents because the patent office is making a concerted effort to clear its backlog of pending applications.

Patents are categorized based on their claims. Some of these newly issued patents, therefore, may have only a slight link to insurance based on only one or a small number of the claims therein.

The [Resources](#) section provides a link to a detailed list of these newly issued patents.

Published Patent Applications

In class 705/4, **40** new patent applications have been published in the last two months. Patent applications are published on Thursdays each week.

The [Resources](#) section provides a link to a detailed list of these newly published patent applications.

A Continuing reminder -

Patent applications have been published 18 months after their filing date only since March 15, 2001. Therefore, the year 2001 numbers in the table above for patent applications are not complete and do not reflect patent application activity in the year 2001. A conservative estimate would be that there are, currently, close to 250 new patent applications filed every 18 months in class 705/4. Therefore, there is approximately that number of pending applications not yet published.

The published patent applications included in the table above are not reduced when applications are either issued as patents or abandoned. Therefore, the table only gives an indication of the number of patent applications currently pending.

Resources

[Recently published U.S. Patents and U.S. Patent Applications](#) with claims in class 705/4.

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The following are links to web sites which contain information helpful to understanding intellectual property.

United States Patent and Trademark Office (USPTO): Homepage - <http://www.uspto.gov>

United States Patent and Trademark Office (USPTO): Patent Application Information Retrieval - <http://portal.uspto.gov/external/portal/pair>

Free Patents Online - <http://www.freepatentsonline.com/>

Provides free patent searching, with pdf downloading, search management functions, collaborative document folders, etc.

US Patent Search - <http://www.us-patent-search.com/>

Offers downloads of full pdf and tiff patents and patent applications free

World Intellectual Property Organization (WIPO) - <http://www.wipo.org/pct/en>

Patent Law and Regulation - <http://www.uspto.gov/web/patents/legis.htm>

Here is how to call the USPTO Inventors Assistance Center:

- Dial the USPTO's main number, 1 (800) 786-9199.
- At the first prompt press 2.
- At the second prompt press 4.
- You will then be connected to an operator.
- Ask to be connected to the Inventors Assistance Center.
- You will then listen to a prerecorded message before being connected to a person who can help you.

The following links will take you to the authors' websites

Mark Nowotarski - Patent Agent services – <http://www.marketsandpatents.com/>

Tom Bakos, FSA, MAAA - Actuarial services – <http://www.BakosEnterprises.com>