

*COMMENTS OF*

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*PREPARED FOR*

**FTC AND ANTITRUST DIVISION HEARINGS  
ON COMPETITION AND INTELLECTUAL PROPERTY  
LAW AND POLICY IN THE KNOWLEDGE-BASED  
ECONOMY**

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## I. INTRODUCTION AND OVERVIEW

On behalf of both myself and the American Intellectual Property Law Association (AIPLA) I express appreciation to the FTC and Antitrust Division for this invitation to participate as part of the panel in these hearings and to provide comments on the important topic of competition and intellectual property law and policy in the knowledge-based economy.

The AIPLA is a national bar association whose constituency includes over 13,000 attorneys, with diverse practice interests, including corporate in-house counsel, attorneys from the private and government sectors, and academics. As such, AIPLA's membership is involved in all aspects of intellectual property procurement, licensing and protection.

These comments will briefly review the evolution of patent protection for software and e-commerce technology, and will then turn to the topic of competition and intellectual property policy as it pertains to the domain of software and e-commerce technology patents.

## II. EVOLUTION OF PATENT PROTECTION FOR SOFTWARE AND E-COMMERCE TECHNOLOGY

I believe the evolution of patent protection for software and e-commerce technology is generally characterized by three stages, beginning with early developments and studies dating from the 1960's and the Supreme Court's early decision in the *Benson*<sup>1</sup> case in 1972. The second stage is marked at its beginning by the Supreme Court's landmark decision in 1981 in *Diamond v. Diehr*,<sup>2</sup> followed by a series of decisions in the Court of Customs and Patent Appeals which served to expand the interpretation of section 101 under the so-called *Freeman* "mathematical algorithm" test. The third stage is marked at its beginning by the Federal Circuit's changing view of the usefulness of the "mathematical algorithm" test, beginning with the *Alappat*<sup>3</sup> case in 1994, and the USPTO's significant revision two years later of the *Examination Guidelines for Computer Related Inventions*,<sup>4</sup> and continuing through the recent decisions of the Federal Circuit in 1998 – 99 in *State Street Bank*<sup>5</sup> and *AT&T v. Excel*.<sup>6</sup>

As will be pointed out in the course of my remarks, these stages of development in the patent law, which are characterized for the most part by an increasing attitude of judicial and USPTO receptivity to consideration of software and e-commerce technology

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<sup>1</sup> 93 S.Ct. 253 (1972).

<sup>2</sup> 101 S.Ct. 1048 (1981).

<sup>3</sup> 33 F.3d 1526 (1994) (en banc). The court held in *Allapat* that a computer program converting waveform data samples into pixel illumination data samples was not a "disembodied mathematical concept" but rather, as claimed, was directed to a specific machine (rasterizer) which produced a useful, concrete, and tangible result.

<sup>4</sup> 61 Fed.Reg. 7478, 7479 (1996) (emphasis added).

<sup>5</sup> 149 F.3d 1368 (1998).

<sup>6</sup> 172 F.3d 1352 (1999).

as eligible subject matter for patenting, reflects the way in which software technology has itself changed over that period of time.

#### A. Early Debates and Developments

The question of whether software should be the subject of patents is not a new debate for those familiar with the developments in the law surrounding the patenting of software.

In 1965, President Johnson, by executive order,<sup>7</sup> commissioned a comprehensive study of the U.S. patent system. The President's Commission was comprised of ten members of the public and representatives of four government agencies, the Department of Commerce, the Department of Defense, the Small Business Administration, and the National Science Foundation. Edward J. Brenner, then Commissioner of the Patent and Trademark Office, participated as designee of the Secretary of Commerce. Official observers were also sent from the office of the Secretary of State and the Office of Science and Technology. The Commission held thirteen meetings, each lasting from one to four days, and produced its final report to the President on Nov. 17, 1966.

Noting in its report that the patent law had not seen any basic change in some 130 years, the Commission recommended a number of sweeping changes, driven by what the Commission saw as fundamental changes resulting from a largely agricultural economy in the 1800's to an exploding technological economy. In addition to the recommended changes to the basic patent law, the Commission also took occasion to make recommendations as to the advisability of granting patents for software. Quoting from the Commission's report:<sup>8</sup>

Uncertainty now exists as to whether the statute permits a valid patent to be granted on programs. Direct attempts to patent programs have been rejected on the ground of non-statutory subject matter. Indirect attempts to obtain patents and avoid the rejection, by drafting claims as a process, or a machine or components

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<sup>7</sup> Exec. Order No. 11,215, 30 Fed.Reg. 4661.

<sup>8</sup> USPTO Web site at [www.uspto.gov/web/offices/com/sol/actionplan.html](http://www.uspto.gov/web/offices/com/sol/actionplan.html).

thereof programmed in a given manner, rather than as a program itself, have confused the issue further and should not be permitted.

The Patent Office now cannot examine applications for programs because of the lack of a classification technique and the requisite search files. Even if these were available, reliable searches would not be feasible or economic because of the tremendous volume of prior art being generated. Without this search, the patenting of programs would be tantamount to mere registration and the presumption of validity would be all but nonexistent.

It is noted that the creation of programs has undergone substantial and satisfactory growth in the absence of patent protection and that copyright protection for programs is presently available.

While the Commission's recommendations in its Report were published and debated, for the most part they were not adopted.

Following the Supreme Court's rejection in *Gottschalk v. Benson*<sup>9</sup> of patent claims to a method for converting numbers from binary coded decimal format to binary format, the debate resurfaced in 1976, but this time in the context of the copyright laws in connection with the National Commission on New Technological Uses of Copyrighted Works. CONTU was created by Congress to evaluate the adequacy of copyright law regarding computer-based information systems. In CONTU's Final Report,<sup>10</sup> once again several "problems" were identified in relation to patenting of software. Key among those was uncertainty in the state of the law of patent eligibility in light of the *Benson* decision.

## B. Stage Two: Expanding Definitions of Patent Eligibility

The landscape surrounding the question of patent eligibility for software technology began to change in a significant way beginning with the Supreme Court's

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<sup>9</sup> *Supra* note 1.

<sup>10</sup> 954 *Official Gazette* (Jul. 31, 1978).

1981 decision in *Diamond v. Diehr*.<sup>11</sup> That case recognized that a process for controlling the cure time of a rubber mold was not excluded from consideration for patenting simply because the patent claim included reference to use of a computer for continuously updating the equation used to predict optimal cure time given changes in relevant parameters affecting the cure rate, such as temperature and pressure. This opened the door for patenting of software, and there quickly followed a series of decisions in the Court of Customs and Patent Appeals attempting to refine the boundaries for patent eligibility. Ultimately, these cases and subsequent USPTO guidelines adopted what came to be known as the *Freeman* “mathematical algorithm” test.<sup>12</sup> In effect, if a patent claim did not directly or indirectly recite a mathematical algorithm, it was deemed statutory.<sup>13</sup> If it did, the claim was further analyzed to determine whether the algorithm was applied in some manner to physical elements or process steps, in which case the claim was still deemed statutory, or whether it merely represented solution of the algorithmic equation, in which case it was deemed non-statutory.<sup>14</sup> This scheme continued for roughly the next decade, during which time the USPTO began routinely accepting and examining patent applications directed to software related inventions.

### C. Recent Developments: *Alappat* and *State Street Bank*

In 1996, following the landmark decision handed down two years earlier by the U.S. Court of Appeals for the Federal Circuit in *In re Alappat*,<sup>15</sup> in which the Federal Circuit began moving away from and questioning the usefulness of the *Freeman* test, the

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<sup>11</sup> *Supra* note 2.

<sup>12</sup> *In re Freeman*, 573 F.2d 1237, 1245-46 (CCPA 1978).

<sup>13</sup> *Id.*

<sup>14</sup> *Id.*

<sup>15</sup> *Supra* note 3.

U.S. Patent and Trademark Office published new “Examination Guidelines for Computer Related Inventions.”<sup>16</sup> Those guidelines reflected the emerging change in the judicial view of the law of patent eligibility for software technology, as well as the expanded kinds of software patent claims, particularly so-called computer program product claims as first presented in *In re Beauregard*.<sup>17</sup> Of particular importance to the topic of the present hearing, the new USPTO *Examination Guidelines* recognized that<sup>18</sup>:

Office personnel have had difficulty in properly treating claims directed to methods of doing business. *Claims should not be categorized as methods of doing business.* Instead such claims should be treated like any other process claims.

Thereafter, the so-called “business method” exception to statutory categories of subject matter under 35 U.S.C. § 101 was eliminated *sub silentio* from the Manual of Patent Examining Procedure.<sup>19</sup>

The “business method” exception to statutory subject matter was laid to rest with unmistakable finality by the Federal Circuit in a 1998 decision that was soon to become widely known as opening the floodgate to patents for “business methods,” *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*<sup>20</sup> *State Street* presented a case in which a claim for a data processing system for managing a financial services configuration of a portfolio established as a partnership had been invalidated by the District Court on grounds that the claim did not encompass statutory subject matter under 35 U.S.C. § 101. The claim in question had been held by the District Court to be directed to a “mathematical algorithm,” or in the alternative, to a “business method.” In an opinion authored by the venerable Judge Rich, after holding that as properly construed the claim was directed to a “machine” and noting that the “mathematical algorithm” exception “has little, if any, applicability to determining the presence of statutory subject matter,” the court addressed the “business method” exception, stating:<sup>21</sup>

*We take this opportunity to lay this ill-conceived exception to rest.* Since its inception, the “business method” exception has merely

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<sup>16</sup> 61 Fed.Reg. 7478 (Feb. 28, 1996), and reprinted in the current Manual of Patent Examining Procedure § 2106 (7<sup>th</sup> Ed., Rev. 1, Feb. 2000).

<sup>17</sup> *Ex parte* Beauregard, No. 93-0378, (1993); Appeal No. 95-1054 (Fed. Cir. 1995).

<sup>18</sup> 61 Fed.Reg. 7478, 7479 (1996) (emphasis added).

<sup>19</sup> See MPEP § 706.03(a) (1996).

<sup>20</sup> *Supra* note 5.

<sup>21</sup> 149 F.3d at 1375-76 (citations omitted and emphasis added).

represented the application of some general, but no longer applicable legal principle, perhaps arising out of the “requirement for invention” – which was eliminated by § 103. *Since the 1952 Patent Act, business methods have been, and should have been, subject to the same legal requirements for patentability as applied to any other process or method.*

. . . Application of this particular exception has always been preceded by a ruling based on some clearer concept of Title 35 or, more commonly, application of the abstract idea exception . . . .

. . .

Even the case frequently cited as establishing the business method exception to statutory subject matter, *Hotel Security Co. v. Lorraine Co.*, did not rely on the exception to strike the patent. In that case, the patent was found invalid for lack of novelty and “invention,” not because it was improper subject matter for a patent.

*State Street* i) abolished the “business method” exception to statutory subject matter, and ii) in effect, replaced the *Freeman* “mathematical exception” test for statutory subject matter with a new standard: “concrete, tangible results.” *State Street’s* holding was quickly reaffirmed by the Federal Circuit in *AT&T Corp. v. Excel Communications, Inc.*,<sup>22</sup> which applied the rule in *State Street* to method claims directed to a computer process for inserting data into a long distance call record in order to enable proper billing of the call.

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<sup>22</sup> *Supra* note 6.

#### D. Recent Developments Revisited: In Search of Common Understanding

##### 1. What Is A “Business Method,” And What Understanding Should We Should We Take Away From *State Street*?

Because it so firmly confirmed the demise of the “business method” exception to statutory subject matter, *State Street* is now commonly understood to have given rise to the *patenting* of “business methods.” This is an unfortunate reading of *State Street*.

In simplest terms, *State Street* eliminated the "business method" exception as a basis for excluding *consideration* of the inventive merits of such subject matter. In other words, *State Street* held that the claims in that case were directed to a "machine" (e.g., a computer programmed to determine allocation of profit and expense in a certain type of investment entity) and that those claims should be subject to the same type of analysis as applied to any other statutory subject matter, rather than being put into some type of separate "classification" such as "business methods."

This is important because it demonstrates that the Federal Circuit recognized, consistent with the view which has been espoused by the AIPLA over the years (and most recently in its White Paper<sup>23</sup>), that this type of technology should be free from discrimination in the sense that it is deserving of the same type of treatment and should be subject to the same type of analysis as any other technology.

A second, related problem arising from the misunderstanding that *State Street*

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<sup>23</sup> See generally, “*Patenting Business Methods – A White Paper of the American Intellectual Property Law Association*” (Sep. 2000) (hereinafter referred to as the “AIPLA White Paper”). The AIPLA White Paper, while noting the criticisms and concerns voiced in opposition to the patenting of so-called “business methods,” makes an argument in support of patenting business methods, together with recommendations for strengthening the process by which such patents are examined by the USPTO.

made "business methods" patentable is the unfortunate reference to the term itself, e.g., "business methods." "Business methods" potentially encompass all kinds of things not related at all to e-commerce or internet technology, or even software.<sup>24</sup> One might ask, for example, whether word processing software, or whether an operating system software such as Windows,® isn't just as much a "business method" as the claimed invention in *State Street*, since word processing and operating systems are used extensively in conducting various kinds of "business" in different ways.

In other words, *State Street* is more properly viewed as simply requiring that a computer implemented process, irrespective of whether used to carry out a financial transaction, should be measured in the first instance just as any other process or method, by whether it achieves a "concrete, tangible result" in order to then qualify for consideration of its inventive contribution on the merits of its novelty or non-obviousness. Indeed, Judge Rich explicitly noted in *State Street* that "whether the patent's claims are too broad to be patentable is not to be judged under § 101, but rather under §§ 102, 103 and 112."<sup>25</sup> Thus, strictly speaking, it is inaccurate and unhelpful to refer to "business methods" as a "special category" of patents that have been "sanctioned" by *State Street* for patenting.

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<sup>24</sup> For example, methods of teaching athletic skills such as golf and swimming are classified by the USPTO in Class 434 (Education and Demonstration); methods of improving crop yields are classified in Class 47 (Plant Husbandry). Only computer-implemented processes related to e-commerce, the internet and data processing involving finance, business practices, management or cost/price determinations are classified in the USPTO's newly formed "Business Methods" class 705 (technically entitled "Data Processing: Financial, Business Practice, Management, or Cost/Price Determination").

<sup>25</sup> 149 F.3d at 1375.

## 2. Does the Rule of *State Street* Make Good Sense In the Context of Today's Technology?

*State Street* has given us a rule of law for determining when a claimed e-commerce method qualifies as eligible subject matter under § 101, e.g., whether, as claimed, the invention is directed to a “machine” (e.g., system) or “process” (e.g., method) which produces, in the language of the case, a “useful, concrete, and tangible result.” However, as is so often the case, statement of the rule is infinitely easier than its application to a specific set of facts.

At the heart of the difficulty is the problem of properly interpreting the claim in question, in other words, determining in the first instance “What did the applicant invent?” In *State Street* Judge Rich looked to the claim language and the underlying language in the specification, and found a “machine” that consisted of a CPU, a data disk, and “configured” logic circuits. In contrast, the lower court saw the invention not as a combination of CPU, data disk, and logic circuits, but rather as the series of computations performed by an otherwise conventional computer.

On the one hand the rationale used by Judge Rich can be criticized as an overly simplistic way of claim interpretation which would lead in virtually every case to finding a statutory “machine.” However, a closer look at the nature of software, how it has evolved with time, and its relationship to computer hardware perhaps illustrate why that rationale is not necessarily flawed.

From a strictly technical point of view, distinctions between "software" on the one hand and "hardware" on the other are often difficult to draw. This is because the

underlying functionality provided by both "software" and "hardware" technologies is often very similar in terms of design considerations. For example, hardware may include a series of interconnected computer chips. Each chip in turn will include thousands of active electronic devices interconnected in complex microcircuits. There are often hundreds of thousands of such microcircuits on a single chip. Of course, none of these microcircuits (in particular their features or dimensions) can be seen with the naked eye, although they can be viewed with the aid of modern magnification techniques. Since there are so many interconnected electronic devices and microcircuits in such computer chips, it is common to describe the structure of the overall chip in functional terms using block diagrams and functional descriptions (e.g., as functionally grouped logic circuits "configured" to do certain things).

Note the similarity between this type of "hardware" structure and its accompanying functional description and "software." Software is often stored in many thousands of magnetically polarized areas placed on a magnetic medium (or, in the case of an optical disc, reflective and non-reflective areas placed on the optical disc). These minute areas constitute in the aggregate the encoded instructions for operating a computer once the encoded instructions are downloaded into the computer's system memory from the magnetic medium or optical disc. Although they are too small to be seen with the naked eye, these encoded areas, particularly in the case of an optical disc, can be viewed using modern magnification techniques.

Just as in the case of hardware, where the many thousands of small interconnected electronic devices and micro circuits cannot be easily understood except by reference to functional descriptions using block diagrams, so also software can typically be more

easily comprehended through the use of high level functional descriptions. In either case, whether "hardware" or "software," it is the *functional interrelationship* between the interconnected microcircuits or the *functional interrelationship* between the steps performed by the encoded program instructions which provides useful application for the technology.

This interrelationship between a computer program and computer hardware is the reason why persons skilled in the art can usually implement a desired series of functions in either hardware or software. Similarly, as most patent lawyers who practice in this area know, patent claims can be written as hardware claims and vice versa.

The type of "hardware" versus "software" dichotomy, which was clearly evident in the appellate and lower court views of the patent claim at issue in *State Street*, was also at the heart of the disagreement between the majority and dissent in *Alappat*. The majority viewed *Alappat*'s invention as a "rasterizer" while the dissent saw the invention as converting one set of numbers (input waveform magnitude) into another set of numbers (illumination intensity data), e.g., a non-statutory abstract idea.

The common thread in terms of the fundamental problem faced by the court is the same in each of the *Alappat* and *State Street* cases, namely, whether the court interpreted the claims at issue as representing something more than the mere processing of the underlying data. In *Alappat* the court ultimately concluded the claims were directed to a rasterizer, and in *State Street* to a machine which included in combination a CPU, a data disk and logic circuits configured for implementing certain financial transaction allocations.

To state the outcome in each case merely highlights the difficulty of applying the test as to whether what was being claimed was more in the nature of a statutory “article” (e.g., rasterizer, memory device, storage medium, machine, etc.) as opposed to the mere disembodied processing of computer instructions. This very difficulty appears to be what ultimately led the Federal Circuit to reject the kind of artificial “line drawing” required by categorizing something as a “mathematical algorithm,” “mental steps,” “printed matter,” or “business method.”<sup>26</sup> These “exceptions” to statutory subject matter tended to be ways of defining statutory subject matter by defining what it is not. Moreover, each of these now defunct “exceptions” to statutory subject matter tended to rely more on the nature of *what* was being claimed and less on what the particular *result* was of the claimed invention. As the foregoing comparison of hardware and software design makes clear, however, whether one relies on a particular “hardware” as opposed to “software” design, is often less important than what is *functionally* accomplished by the design. Stated in other terms, and as noted by Judge Rich in *State Street*, “The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to – process, machine, manufacture, or composition of matter – but rather on the essential characteristics of the subject matter, in particular, its *practical utility*.” The court’s focus on “concrete, tangible results,” as representative of the “essential characteristics” of the invention is more consistent with the reality of how software technology is implemented. Moreover, it is also consistent with the way in which software has itself developed.

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<sup>26</sup> “Mathematical algorithm” (*Alappat*), “printed matter” (*Lowry* or *Beauregard*), or “business method” (*State Street*).

Early software programming was more involved with mathematical programming techniques and arithmetic manipulation, but over time software programming has increasingly involved more abstract, high level programming techniques such as object oriented programming – e.g., concentration on functionally what the computer is to do, not so much how it is done.

This change in programming orientation is also reflected in the recent trends of the world of e-commerce and the Internet. Through the medium of the Internet, the software industry has joined *technology* with *commerce*. Where there was once a clear demarcation between the two, today *technological* methods of operating a computer network are often virtually indistinguishable from computerized methods of *transacting business* over the Internet. With these thought in mind, these comments turn, lastly, to questions of competition and IP policy in regard to so-called “business method” or e-commerce technology.

### III. COMPETITION AND IP POLICY IN THE DOMAIN OF SOFTWARE AND E-COMMERCE TECHNOLOGY

#### A. Patent Law Policy

One should give careful consideration to the proper role which a statute such as § 101 *ought* to play within the overall framework of patent law. In other words, in a certain sense should the “burden of proof” be on a requirement to show why a given class of technology such as Internet and e-commerce technology should be included within the

reach of § 101, or should the “burden of proof” so to speak be on a requirement to show why such technology is *not* within the embrace of § 101?

In its now famous pronouncement in *Chakrabarty* concerning the role of § 101, the Supreme Court stated that Congress intended that section to embrace “anything under the sun that is made by man.”<sup>27</sup> Section 101 is thus, *for reasons rooted in policy*, primarily intended to be *inclusive*, not *exclusive*, of subject matter. The Supreme Court has made it clear that subject matter that is excluded from consideration for patenting is to be narrowly circumscribed. It is limited to “laws of nature, natural phenomena, and abstract ideas.”<sup>28</sup> As aptly explained by Judge Newman in her concurring opinion in *Alappat*:<sup>29</sup>

Phenomena of nature and abstract scientific and mathematical principles have always been excluded from the patent system. Some have justified this exclusion simply on the ground of lack of “utility”; some on the ground of lack of “novelty”; and some on the ground that laws of nature, albeit newly discovered, are the heritage of humankind. On whatever theory, the unpatentability of the principle does not defeat patentability of its practical application. (emphasis added).

In other words, § 101 is to be construed in way which presumes in the first instance, inclusion, not exclusion. This in turn leads to the conclusion that a broad category of new technology, such as Internet and e-commerce technology, or other kinds of software-related inventions, should not be treated differently than other technologies and should not be *per se* excluded from patent eligibility absent *compelling* policy reasons for doing so.

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<sup>27</sup> *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

<sup>28</sup> *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

<sup>29</sup> 33 F.3d at 1543.

In terms of patent policy, this is both preferable and appropriate. A statutory section that is as deeply founded on policy considerations as § 101 is ill suited to serve as a “gatekeeper” to the grant of patent protection. That role is best left to considerations of the inventive merits (e.g., novelty and non-obviousness under §§ 102 and 103) of a particular invention in the given technological field. As noted by Judge Newman in *Alappat*:<sup>30</sup>

[G]iving § 101 the narrowest possible reading – even were that ever a valid administrative policy – is out of place in a world that has become totally dependent on technology, and in which the laws governing technological innovation have direct consequences for industrial growth. *Governmental timidity* in the face of scientific and technologic change is not only unnecessary: it is unsupportable.

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An inquiring and receptive attitude by the PTO to new technologies finds a mandate in the statute. The text of section 101 has not changed since 1793, other than to change the word “art” to “process”. This simple text served the industrial revolution and the atomic age; surely it can serve modern electronics.

## B. Competition Policy

### 1. Concerns Stemming from Perceptions of Increasing Numbers of Patents: The So-Called “Patent Thicket” Problem

There is little question, as noted by Chairman Muris in his remarks on competition and intellectual policy of Nov. 15, 2001 before the ABA Antitrust Section, that in “recent years, the number of patents issued annually by the Patent and Trademark Office has increased substantially.” However, in terms of competition policy, the question this raises is whether the increased number of patents issuing is producing an anticompetitive effect. More specifically, in the context of so-called “business method”

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<sup>30</sup> 33 F.3d at 1569-70.

patents, or more accurately, e-commerce and Internet technology patents, is the effect of the increasing number of patents issuing for this type of technology a hindrance to competition?

First, in the context of the subject matter of this hearing, it well to place this question in a proper perspective. According to the most recent statistics of the USPTO, the number of patents issuing in class 705 (“Data Processing: Financial, Business Practice, Management or Cost/Price Determination,” *e.g.*, “business method” patents) represented only about ½ of 1% and ¼ of 1%, of all patents issued for fiscal years 2000 and 2001, respectively. Further, the rate of applications allowed in class 705 was 55% and 45% for fiscal years 2000 and 2001, respectively, as compared to an allowance rate of 69% for all classes in fiscal year 2001.

These statistics reflect the seriousness with which the USPTO is attempting to responsibly discharge its statutory obligation to issue only those patents which meet the statutory levels of novelty and non-obviousness. Indeed, in response to concerns that have been voiced since *State Street*, the USPTO has implemented procedures (*see, e.g.*, the USPTO “Business Method Initiative: An Action Plan” announced on Mar. 29, 2000,<sup>31</sup> which describes the measures undertaken to insure improved quality of examination for “business method” applications, including, improvement of search expertise and scope, greater supervision of younger examiners, and increased second or “peer” review activity) that go well beyond the measures employed in other technology areas of the USPTO.

Second, there can be little doubt that proliferation of new technology is playing a major role in the increasing number of patents being issued and the number of new

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<sup>31</sup> USPTO Web site at [www.uspto.gov/web/offices/com/sol/actionplan.html](http://www.uspto.gov/web/offices/com/sol/actionplan.html).

applications being filed. Inventors and corporations are seeking protection today for inventions for which there was no corollary twenty years, or even a decade ago. Advancements in genomics, medical procedures and devices, pharmaceuticals and Internet and e-commerce technologies continue to rapidly advance the frontiers of human knowledge.

Lastly, there is no empirical evidence that “patent thickets” are impeding the entry of new Internet and e-commerce technologies. Indeed, quite to the contrary, patents continue to be a source for providing increased competition by permitting start-ups to attract investment capital through the protection of their innovations from unwarranted “takings” by larger, dominant firms. Even in the case of larger firms, patents more often than not are looked to as a mechanism for insuring “design freedom” in the sense of providing continued access to new technology through cross-license arrangements when challenged with infringement by a major competitor.

#### 1. Concerns Stemming from Perceptions of Patent Scope and Patent “Quality”

The above comments notwithstanding, that is not to say that there is not room for continued improvement in the quality of the patents issued by the USPTO, in the “business method” or Internet and e-commerce technology area, as well as others.<sup>32</sup> The AIPLA and other professional and user communities are committed to supporting the USPTO in that objective. The AIPLA has convened a task force to undertake study and

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<sup>32</sup> Last year Chairman Coble together with Mr. Conyers and Mr. Berman introduced H.R. 2047, the “Patent and Trademark Office Authorization Act of 2002,” calling for the Director of the PTO to develop a five-year strategic plan that would “(1) enhance patent and trademark quality; (2) reduce patent and trademark pendency; and (3) develop and implement an effective electronic system for use by the Patent and Trademark Office and the public for all aspects of the patent and trademark processes ...”

consideration of the measures that might be looked to in helping to assess the effectiveness in reaching that goal, as well as practical ways that the USPTO can change its operation to more effectively achieve that critical objective.

In this respect, in testimony recently presented at the House of Representatives' oversight hearing on "The U.S. Patent and Trademark Office: Operations and Fiscal Year 2003 Budget," the AIPLA, through its Executive Director, Mike Kirk, went on record as stating that

"Quality of the patents and trademark registrations granted by the USPTO must be at the forefront of efforts to strengthen and improve the operation of the Patent and Trademark Office. Granting patents . . . that cannot withstand the rigors of a court challenge does not serve the interests of the USPTO users community. It is costly and wasteful of valuable resources that could be put to better use in other endeavors. Moreover, the existence of patents . . . that grant unwarranted rights of exclusivity may deter otherwise lawful activity by others in technical and marketing endeavors. On the other hand, the ability to protect investment in research through the grant of strong patent rights . . . is equally critical. The AIPLA believes that efforts to strengthen and improve USPTO operations should therefore be governed in every instance by a concern, first and foremost, for improving quality of the ultimate rights granted under patents . . . ."

However, this is a concern that affects *all* technology areas, and that should *not* be limited in its focus to a single "type" of patent. Indeed, many of the "business method" initiatives pioneered in class 705 warrant further study and consideration in terms of whether they should be implemented on a much broader scale across all classes of applications under consideration by the USPTO in order to achieve improvement in patent "quality" overall as opposed to a single narrow class.

Lastly, as to concerns arising out of patent "quality," it must be observed that the USPTO has gone through twelve consecutive years during which it has failed to receive all of the fee revenues it collected. During this same period, we have seen the services the

USPTO provides gradually deteriorate. Admittedly, concerns about patent quality are higher now than anytime in memory. Yet, at the same time, while the appropriators criticize users and the USPTO for complaining about the diversion of fee revenues, they exclaim proudly how well they have treated the USPTO by giving it increases in funding that are barely 1% or 2% above inflation when patent and trademark application filings are increasing by 10% or more. Over the last ten to twelve years, Congress and the Administration have diverted over \$700,000,000 in user fees for uses other than funding USPTO operations, as intended by those fees. It is little wonder that patent quality is at an all time crisis level. There are few, if any, major corporations that could continue to meet rising demand for products and services without adequate levels of reinvestment. And in that sense, it is worth noting that the USPTO cannot control or limit “demand.” By statute, it must handle all applications filed, irrespective of the resources allocated to it by Congress and the Administration to keep pace with that growing demand.

### C. Defining the Boundary Between Competition and IP Policy

Notwithstanding the present concerns for patent quality and increasing numbers of patents issued, or for expanding the kinds of new technologies which the courts have determined are appropriate for consideration of their ultimate inventive merit, the question remains as to where the boundary between these concerns crosses over from considerations rooted primarily in “patent policy” to considerations that draw into play “competition policy.” Returning again to the remarks of Chairman Muris:

The tensions between the doctrines tend to obscure the fact that, properly understood, IP law and antitrust law both seek to promote innovation and enhance

consumer welfare. The goal of patent and copyright law, as enunciated in Article I section 8 of the Constitution, is “To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” IP law, properly applied, preserves the incentives for scientific and technological progress – i.e., for innovation. . . . Similarly, antitrust law, properly applied, promotes innovation and economic growth by combating restraints on vigorous competitive activity.

The comment of Chairman Muris provides the proper guidance in this respect. The antitrust/IP interface has historically only been concerned with identifying, setting and enforcing antitrust policy where patents are *abused* as such (e.g., use by a dominant firm in, or one seeking to monopolize, a relevant market to use (or perhaps more accurately, “abuse”) its patents through unlawful tying arrangements which attempt to expand the scope of a patent to unpatented products, unlawful extension of the duration of a patent, by “sham” claims of infringement, or through other similar kinds of “abusive” conduct).

Questions of patent “quality,” numbers of patents issuing (which is closely tied to the question of patent quality, e.g., why should policy be concerned over increasing numbers of patents if they are in fact “quality” patents?), or interpretations of patent statutes, such as section 101, are principally questions rooted in patent, not competition, policy. As such those questions are best left for the agency tasked with those responsibilities, the USPTO, together with Congress, the Courts, and the USPTO user community.

#### IV. CONCLUSION

As stated by James E. Rogan, newly appointed Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office, in his remarks before the FTC and Antitrust Division in these hearing on Feb. 6 of this year, “The supposed tension between intellectual property law and antitrust law arises, I suspect, from a misunderstanding of patents as a form of monopoly. Although a patent allows an inventor to exclude others from using or selling the invention without permission, it is not a monopoly in the antitrust sense.” Indeed, consistent with that observation, the AIPLA has gone on record in these hearing and previously as supporting legislation to remove the presumption appearing in some court decisions that an intellectual property right, without more, provides market power that is of a level sufficient to result in liability under the antitrust laws. Such a presumption is unwarranted because an intellectual property right, if subjected to the normal antitrust analysis used in non-intellectual property cases, rarely yields such economic power.

Accordingly, the AIPLA is in full support of the comments of Undersecretary Rogan in these hearings, in which he stated that

“To the extent that the Patent Act and antitrust laws are based on dissimilar policies, competition regulators are rightfully cautious in assuming that Congress automatically intends the distinctive policies of antitrust laws to trump those underlying the intellectual property system. This is especially so when one contemplates that the foundations for intellectual property protections are found directly in the United States Constitution.”