

## **PRESS RELEASE**

### ***To Whom It May Concern:***

You just received this highly topical press release as you or your organization is interested – at least up to my pertinent email list – in the current development of the US patent precedents.

This PR deals with this actual evolution of the US patent precedents driven by the increasing significance of emerging technologies inventions. Classical patent precedents has shown to be unable of handling them in a consistent and predictable way – hence it must be refined for terminating the series of respective judicial debacles encountered. More precisely, this PR offers:

- a strategic view on the most recent activities of both Highest US Courts, the Supreme Court and the CAFC, aiming at achieving this refinement appropriately. I.e.: It is not another comment on a single decision in this series, but outlines the recent trend in both Highest US Courts' pertinent decisions.
- by its end an outline of this refined patent precedents' dramatic impacts on any patent practitioner's professional life, as it enabled developing "patent technology" of hitherto unthinkable power.

Comments on this PR are highly appreciated on the FSTP blog quoted therein – which is managed by my coworkers Dr. Stefan Leppelman, Dr. Susanne Pettelkau, and me.

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***US Highest Courts' Patent Precedents in Mayo/Myriad/CLS/Ultramercial/LBC:  
"Inventive Concepts" Accepted – "Abstract Idea" Next?  
Emerging Technology Patents: Intricacies Overcome***

Emerging technology inventions drive a paradigm shift in the US national patent system (NPS)<sup>1</sup>, caused by the current US Highest Courts' patent precedents – as seen by Knowledge Representation (KR)<sup>2</sup>. It is evolving just as historically all important knowledge areas evolved, e.g. agriculture, mathematics, architecture, medicine, physics, ..., "advanced IT": often controversial. This PR comments on the recent evolution of the US patent precedents and on its landslide kind of impact on developing "patent technology". The latter facilitates any kind of working on claimed inventions by enabling partial but substantial systematization and automation of testing their patentability and patent-eligibility. Thus, this evolution will dramatically increase the productivity of all patent practitioners – be they inventors, research managers, examiners, lawyers, licensors/-sees, investors, or judges<sup>3,4,5</sup>.

**The Recent Evolution of the US Highest Courts' Patent Precedents – at a Glance**

In the international arena of patent systems, the US Highest Courts' patent jurisdiction just proved its leading role in adjusting the US NPS to the needs of emerging technologies – being one of the sources of the wealth of economically highly developed societies – by accordingly refining the interpretation of 35 USC §§ 112/102/103/101.

This adjustment had started in 2007 with the Supreme Court's interpretation of § 103 in the *KSR* case and then seemed to be, for many patent experts, the start of a US internal administrative law dispute about the responsibility distribution in patent jurisdiction between the Supreme Court and the CAFC. Today it arrived at refining the interpretation of 35 USC §§ 101 and 112, according to the Supreme Court's *Bilski/Mayo/Myriad* decisions and the CAFC's *Intuit/CLS/Ultramercial* decisions. During this time it turned out that this dispute between the Highest US Courts is much more than a question of US administrative law: Namely, that it is an internationally big step forward in getting under control the fundamental problems inevitably arising in classical patent precedents with purely "model based" inventions – being totally mental, i.e. of intangible and invisible subject matter, i.e. no longer of "machine-or-transformation" (MoT) type – specific of all emerging technologies<sup>4</sup>. Hence, these problems arise not only in the US but sooner or later in any high tech depending nation, putting the consistency and predictability of its NPS into jeopardy – as it first happened in the US. The US Highest Courts reacted by taking, by the above quoted decisions, US patent precedents to a higher level of development, enabling consistent and predictable patent precedents again, comprising also emerging technology inventions – as the first NPS, worldwide.

This refined US patent precedents embodies a significant increase of awareness of the intricacies in patenting e.g. business, human genome, or pharmaceuticals based inventions. Hence, its paradigm is notionally more precise and complete than the classical one, "refined" for short. I.e.: The US Highest Courts recognized the necessity of refining the paradigm underlying these 4 §§'s interpretations and refined both accordingly.

<sup>1</sup> "THE FSTP EXPERT SYSTEM", [www.FSTP-Expert-System.com](http://www.FSTP-Expert-System.com).

<sup>2</sup> "advanced IT" is a generic term denoting IT research areas such as AI, Semantics, KR, Description Logic, Natural Language, ...

<sup>3</sup> "AN INNOVATION EXPERT SYSTEM, IES, AND ITS DATA STRUCTURE, PTR-DS", [www.FSTP-Expert-System.com](http://www.FSTP-Expert-System.com), e.g. ftn\*\*".

<sup>4</sup> "INVENTIVE CONCEPTS ENABLED SEMI-AUTOMATIC TESTS OF PATENTS", [www.FSTP-Expert-System.com](http://www.FSTP-Expert-System.com).

<sup>5</sup> "Patent Business – Before Shake-up", Extended marketing brochure, to be ordered by [www.FSTP-Expert-System.com](http://www.FSTP-Expert-System.com).

The landmark *Mayo* decision refined the classical paradigm underlying patent precedents in particular by the 3 terms “inventive concept”, “preemptive”, and “abstract idea” – but only outlined their meanings. Though, advanced IT is familiar with the first term’s notion (here used in only a strongly simplified version<sup>4</sup>). And the meanings of the other two terms are implied by the first one, as shown in detail earlier<sup>4</sup>. The Supreme Courts’ request to use “inventive concepts” for presenting a claimed invention in increased clarity – its patent-eligible inventive concepts separated from its patent-noneligible ones, for enabling testing it under 35 USC §§ 101 and 102/103 in an unambiguous way – namely implies two important clarifications from which these two meanings follow<sup>4</sup>:

- The hitherto sufficient “classical claim construction” for a claimed invention must be expanded to a significantly more careful and hence “refined claim construction” for it, requiring a refined interpretation of § 112, first of all.
- A claimed invention resp. its claim is preemptive if and only if it is an abstract idea only – being simply testable.

The massive practical impacts of these 3 clarifications on the everyday patent business, i.e. its amazing simplification – enabled by their exclusion of logically obscure and incomplete arguing, as hitherto possible and hence often practiced, intentionally or not – is summarized by this PR’s final section (details presented earlier<sup>1-5</sup>). Instead, the next paragraphs show: This refined US patent precedents is irreversible. This confirm the most recent decisions of the Supreme Court in the *Myriad* case (on 13.06.2013) and of the CAFC in the cases *CLS* (on 10.05.2013), *Ultramercial* (on 21.06.2013), and *LBC* (on 15.03.2013, the oral hearing scheduled for 13.09.2013). Note: In the light of *Mayo*, the *LBC* case now addresses the most basic questions about the US patent precedents.

The above quoted “*Mayo* terms/notions” of this paradigm refinement initially caused broad and often controversial discussions, e.g. via the Internet. But, the trend of these 4 decisions clearly indicates that on the Highest Courts level this initial uncertainty is now vastly overcome – notwithstanding many still adversarial patent lawyers in the Internet. They evidently consider this more elaborate thinking as threatening their established status, while it implies a significant increase of their professional qualification and hence of their business opportunities. The summary is: The Highest Courts’ consent on interpreting these 4 §§ of 35 USC is still “in status nascendi”. The *Mayo* terms are not yet used in some Highest Court decisions, but they all are already based on the *Mayo* notions.

- The **CLS decision’s** inconsistent opinions clearly reflect the CAFC’s initial feeling, these new terms/notions – unmistakably requested by the Supreme Court in *Mayo* to be applied when testing a model based claimed invention under 35 USC § 101<sup>4</sup>) – are too vague. This was also expressed, prior to *CLS*, by the CACF’s invitation of amicus briefs in the *LBC* case, with its fundamental claim construction questions.

The principle reason was: In *Mayo* the Supreme Court had clearly hinted, for such a claimed invention, at the tight dependency of its § 101 test on its refined § 112 test (identifying its patent-eligible and patent-non-eligible “inventive concepts”), and at this § 101 test’s impact on the claimed invention’s § 102/103 test (determining its patentability by only patent-eligible ones). But most of the opinions in this case ignored these hints vastly, i.e. still considered this § 101 test of the claimed invention as not tightly related to its §§ 112 and 102/103 tests. Thus, all opinions don’t proceed as requested by the Supreme Court for such § 101 tests, and hence cannot get under control the Supreme Court’s “abstract idea”/“preemptivity” concerns, i.e. none of them fully applies the Supreme Court’s interpretation of § 101. But this has substantially changed since then.

- In *Myriad*, 5 weeks later, the Supreme Court came up with a unanimous analog to its *Mayo* decision clarifying that a naturally occurring inventive concept of the claimed inventions, such as that of an isolated DNA segment – defined<sup>4)</sup> as: “the molecule is just extracted from a natural molecule” – is patent-noneligible<sup>6)</sup>, while another one – defined as: “the molecule is new and totally manmade” – is patent-eligible<sup>6)</sup>, making any claimed invention based on it patent-eligible, i.e. passing the § 101 test (here: also passing the § 102 test).

KR may put this quite simple<sup>6)</sup>: A “cDNA product(ion)” protecting claimed invention solves a problem – its claim protects a cDNA specific application defined by using the “human genome DNA model”<sup>7)</sup>, i.e. just referring to this model – quite different from a “human cancer locus identification” protecting problem to be solved by a claimed invention by protecting a (isolated) part of the human genome DNA model. Patenting the latter invention implies patenting part of this model vastly unknown – while the former only refers to it where known.

The Supreme Court’s decision does not explicitly use the term “inventive concept”: In this context suffices that it identifies, for both kinds of them, information in the specification disclosing them<sup>6)</sup>. The Highest Courts, in their opinions, need not put them into more precise definitions – such as indicated by the above exemplary ones – as *Mayo* requests from patentees for clarifying they are part of their claimed inventions.

- The *Ultramercial* decision only a week later, is unanimous in its result and addresses all *Mayo* terms.

Notwithstanding this unanimity in result, its two opinions preserve the different views at how to approach interpreting § 101 in testing a claimed invention’s patent-eligibility: Either by leveraging on its breadth<sup>8)</sup> or on the test’s few lawful reasons for denying the invention’s patent-eligibility as *Mayo* induces<sup>8)</sup>, yet solely due to its being “an abstract idea only” or its claim being “preemptive”.

Both views could theoretically imply two different results. This could happen only if there is a “not-an-abstract-idea-only” claimed invention excluded from patent-eligibility by the *Mayo* view, i.e. the *Mayo* § 101 interpretation, which is not excluded by the classical view<sup>8)</sup>, i.e. by the “total breadth” § 101 interpretation. Then testing this claimed invention’s claim under *Mayo* yields: It is preemptive. But this conclusion leads to a contradiction, as mathematical KR shows<sup>4)</sup> that for any such claimed invention – due to *Mayo* necessarily described by its refined claim construction (see the *LBC* case below) – its being “preemptive” is equivalent to its claim being an “abstract-idea-only”<sup>4)</sup>. Thus, both interpretations of § 101 are the same, under *Mayo*.

As to “inventive concepts” an almost complete consent exists between both opinions: The CAFC majority opinion just identifies and uses them<sup>8),4)</sup> without terming them so (see *Myriad* above), the only difference being that the minority opinion notes that the CAFC, as reacting on the Supreme Court’s *Mayo* remand, should apply also its terminology – and that this should be practiced also for the preceding § 101 issue<sup>8)</sup>.

Thus, in total, the *Ultramercial* decision signals increasing consent, confirming the headline of this PR.

<sup>6</sup> SUPREME COURT, *Myriad*, DECISION (June 13, 2013): Sects. IIB and IIC describe the inventive concepts (= properties) of molecules defined by means of the human genome DNA model<sup>4)</sup>, rendering them patent-noneligible resp. patent-eligible. The separate opinion induces the question for simplification of emerging technology patents by using their underlying models, www.SupremeCourt.gov.

<sup>7</sup> *Myriad* Amicus Brief of SSBG and *CLS* Amicus Brief of SSBG, www.FSTP-Expert-System.com.

<sup>8</sup> CAFC, *Ultramercial*, DECISION (June 21, 2013): Sect. III is an invulnerable presentation of the breadth of § 101. Sect. IV elaborates on the *Mayo* terms/’notions’ kernel problems of a claimed invention being an “abstract idea only” resp. its claim being “preemptive”. Though, it complicates their clarification as it associates both terms with their broad and blurring colloquial meanings – while interpreting them in the context, in which the Supreme Court used them, allows considerably limiting their meanings, which also substantially limits the exemptions to patent-eligibility the Supreme Court allegedly might have suggested, as shown by KR earlier already<sup>7),4)</sup> and briefly summarized above. As to patent-eligible “inventive concepts” Sect. V identifies/outlines 10 independent ones (p. 27). By its comment on them the separate opinion confirms their double role as to patent-eligibility and patentability hinted at by *Mayo*. www.cafc.uscourts.gov

- In the **LBC § 112.6 case**, in its invitation of amicus briefs, the question put forward asked for “aspects” of the classical claim construction, i.e. of the interpretation of § 112 – for finding out which of these aspects are to be taken care of by the District Court and which by the CAFC<sup>9</sup>). But trying to identify these aspects – for consistency reasons in the light of the *Mayo* decision being binding also in this § 112.6 case as having shown the impacts of the § 101 interpretation on the § 112 (and also the §§ 102/103) interpretation – shows the main deficiency of the classical claim construction: It is impossible to derive from it the answers to the questions asked by the Supreme Court, in *Mayo*, for recognizing a claimed invention’s patent-eligibility and patentability (in particular if model based) – simply as it knows no “inventive concepts”. I.e., trying to answer these questions in the light of *Mayo* implies using the “refined claim construction” based on the claimed invention’s inventive concepts: Answering them without it is inconsistent to the Supreme Court’s interpretation of § 101.

**Dramatic Support for the Everyday Work on Patents: Enabled by this Refined Claim Construction**

The inventive concepts of a claimed invention enabled developing 10 “FSTP tests”<sup>4</sup>). Which “aspects” of a claimed invention’s refined claim construction they check – in IT language: what “requirements” alias “concerns” stated by these 4 §§ of 35 USC they may state as met by the claimed invention (being patent-eligible and patentable iff it passes all 10 FSTP tests<sup>4</sup>) – is described, first, prior to outlining below their amazing advantages.

For a claimed invention its tests under these 4 §§ are refined by the 10 FSTP tests, namely into tests of

- § 112 for the well-definedness of this claimed invention’s inventive concepts, i.e. of their all 1) disaggregation into elementary ones, and their 2) lawful disclosures, 3) definitiveness, and 4) enablement;
- §§ 102/103 for the novelty and nonobviousness of this claimed invention, i.e. of its 7) novelty and nonobviousness by its “NANO test”, based on its 5) independent and 6) non-equivalent inventive concepts;
- § 101 for the patent-eligibility of this claimed invention, i.e. of its being 8) not a natural law only, 9) not idempotent, and 10) not an abstract idea only by its “NAIO test”, i.e. of its claim being nonpreemptive.

The dramatic support of a patent professional working on a patent and its claimed invention – provided by an Innovation Expert System (IES) leveraging on these 10 FSTP tests – comprises, firstly, automatically prompting him/her through all steps of exploratively checking both, whether they meet these 4 §§’s resp. requirements/concerns by having him/her interactively input or by automatically computing these statements (= facts screening), and secondly, their automatic real-time affirmative execution (= facts transforming). The latter provides to him/her controls for •access to all information existing in any FSTP test of the claimed invention, and •crossover from any one item in its patent to its peer in each document and to any one of their relations, tests resp. their single steps, multiple presentations thereof, ... (and back), and •all these services instantly, anytime, in “dialog real-time”.

I.e.: The increased preciseness and completeness of the refined US patent precedents and advanced IT enabled developing unexpected, far reaching, and hitherto unthinkable “patent technology” and IESes, which automate most of the complete test of any claimed invention under 35 USC §§ 112/102/103/101 and may track, comment on, and stimulate arbitrary disputes about it in real-time<sup>4</sup>).

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<sup>9</sup> CAFC, LBC, ORDER (March 15, 2013): Issues (3)b./c., www.CAFC.uscourts.gov