No. 13-298

IN THE

Supreme Court of the United States

ALICE CORPORATION PTY. LTD,
Petitioner,
v.
CLS BANK INTERNATIONAL, et al.
Respondents.

On Petition for Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

BRIEF OF AMICUS CURIAE SIGRAM SCHINDLER BETEILIGUNGSGESELLSCHAFT mbH, IN SUPPORT OF PETITIONER

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STATEMENT OF IDENTITY AND INTEREST

Sigram Schindler Beteiligungsgesellschaft mbH and its subsidiaries (collectively "SSBG") are research-based high technology companies located in Berlin, Germany, developing and selling products also in the US, via TELES AG. SSBG is a majority shareholder of TELES AG, founded 1983 by Sigram Schindler[1)].

SSBG's business is dependent upon patent protection, in particular in the United States and Europe. Strong patent systems require that the patents issued are consistently interpreted. Thus, SSGB has a vested interest in supporting the US patent system in its on-going development in adjusting itself to the needs of emerging technologies. By the groundbreaking *KSR/Bilski/Mayo* decisions this Court undertook big respective steps.

This brief, in support of neither party, is filed on behalf of *Amicus Curiae* SSBG – which has no financial interest in either side.

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[1] Pursuant to Supreme Court Rule 37.6, amicus curiae states, that no counsel for a party authored this brief in whole or in part, and no entity or person other than amicus curiae, its members, and its counsel, made any monetary contribution toward the preparation or submission of this brief. Letters from the parties consenting to the filing of this brief are on file with the Clerk.

SUMMARY OF THE ARGUMENTS

This Amicus Brief in support of *Alice*'s Petition is a continuation of SSBG's Amicus Brief in support of *WildTangent's* equivalent Petition [19].

Both Petitions basically ask the Supreme Court for clarification of the question, what requirements § 101 states – as interpreted by the *Mayo* decision, but also the Bilski decision, both by means of claimed "emerging technology inventions" – to be met for a claimed such invention for being patent-eligible. Thereby both Petitioners assume this interpretation is reducible to that of the term "abstract idea" in both decisions' interpretations.

SSBG's *WildTangent* Amicus Brief ("WTAB") just as this one state – guided by the Supreme Court's *KSR/Bilski/Mayo* decisions – the point of view of advanced IT [2]. Namely: This question's answer, if it is supposed to enforce consistency in patent precedents also for claimed such inventions, would not exist at all, if the Supreme Court had not refined – by these decisions – the classical paradigm Substantive Patent Law ("SPL") precedents is based on, established by the Markman/Phillips/Noah decisions, to a refined paradigm, which does enforce the consistency of interpreting all 4 §§ 101/102/103/112.

This refined paradigm of SPL, as required by the *Mayo* decision and retraced by the WTAG [19], leads to two scientific insights into SPL precedents of highest practical significance for any SPL test of claimed such inventions. These insights are, as to a claimed such invention's "whole" and hence compound SPL test:

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A) It is totally inseparable as to its 4 also compound as "§-wise" SPL sub-tests, and

B) it is totally separable as to its 10 elementary as "requirement-wise" SPL sub-tests.

Both these scientific insights are of high practical significance:

A) The inseparability of a § 101 test is lingering in SPL precedents since ever. It questions, whether it is at all legally relevant if it ignores this claimed invention's sub-test(s) under § 112 or even §§ 102/103, too – i.e., the interpretation of § 101 is independent of that of the other 3 §§.

The Supreme Court's *Mayo* decision clarifies this evergreen issue of SPL precedents quite unmistakably: By showing, by a claimed emerging technology invention, that there is no such independency – as all these 4 §§ are logically tightly enmeshed in each other. I.e.: Testing its patent-eligibility without testing its meeting all §§ 112/102/103 requirements, is legally flawed.

As a side issue, the *Mayo* decision states also the inseparability of any claimed invention's whole SPL test as to its inventive concepts.

This inseparability is often harmless when dealing with MoT-type inventions. With claimed emerging technology inventions – the WTAB explains their new problems [5, 19] – the need increases of being aware, of both inseparability issues: Failing as to only one of the SPL requirements/concerns or inventive concepts devalues the whole SPL test, while this failure has absolutely no tangible or visually exact representation.

B) These inseparability problems of the whole §-wise SPL test are eliminated by its complete separability, enabling its complete "disaggregation"/"refinement" into a whole requirement-wise SPL test – being the logical conjunction of 10 "requirement-wise" alias "refined" alias "elementary" SPL sub-tests.

Thereby any refined SPL sub-test checks the claimed such invention for meeting exactly 1 of the 10 – today known and changeable by the Highest Courts' precedents, interpreting the 4 §§ 101/102/103/112. Hence, this invention's passing all 10 refined SPL tests is necessary and sufficient for its patent-eligibility and patentability.

A), B), and the subsequent arguments are focused on the following. A claimed invention's "self-contained" § 101 test does not exist. But, any § 101 test of it comprises testing, for a set of inventive concepts defining it, whether it meets – as to all its inventive concepts – all 10 elementary requirements stated by these 4 §§, as interpreted by the Highest Courts.

Pre-Mayo this scientific thinking – in terms of requirements to be met by a claimed invention and its claim, as required by the *Mayo* decision, disregarding where these 10 requirements are stated in these 4 §§ – was totally unknown. *Post-Mayo* it is mandatory, as required by the Supreme Court. And science bars any way back to ante quo, if attempted.

ARGUMENTS

The WTAB explained the all overarching significance of the notion of "inventive concept" introduced by the *Mayo* decision into the US SPL precedents. Concepts are apt for "disaggregation into their elementary concepts" and for the "separation of concerns", here: "separation of the requirements stated by SPL" [5]. The WTAB terminated by stating that proceeding in any claimed invention's § 101 test, as required by the *Mayo* decision, enforces the future consistency of SPL precedents, also if dealing with claimed emerging technology inventions.

But, WTAB did not yet address the inseparability problem inevitably encountered in a claimed invention's SPL test starting with using *Markman/ Phillips* first and only then considering *Mayo*. Then this inseparability namely implies: A claimed invention's test under § 101 is decided [11]

a) by SPL as a whole (I.e.: There is no test for a claimed invention's patent-eligibility that does not involve all 3 remaining §§ 112/102/103, too), and

b) by this claimed invention as a whole (I.e.: There is no test for its patent-eligibility not involving all inventive concepts making-up this invention),

both together being intellectually unmanageable.

Yet, it turns out that this problem a), caused by the total inseparability of the claimed invention's "whole compound as §-wise SPL test", is avoided by replacing the latter by its equivalent but completely separable "whole elementary/refined as requirement-wise SPL test", which also enables solving the inseparability problem b) as to its inventive concepts – explained in Section VII.

[16] addressed part of this § 101 phenomenon and called it the "… double-dipping approach to the patentable subject matter test …". But in total, this phenomenon – arising in testing the patent-eligibility of a claimed invention, yet in truth being a SPL precedents problem – embodies

- not only approaching to the patentable subject matter being key to § 101, as seen by [16],
- but also checking 1.) the lawfulness of the definition of what at all is claimed by the claim (§ 112), 2.) the exclusion that the claim comprises an invention not claimed by the inventor in its specification and potentially still unknown (§ 112), and 3.) the nonidempotence of the invention (§§ 102/102/101).

These two bullet points indicate a "10-dipping approach", i.e. a "10 checks approach", to any legally relevant feature of the claimed invention. I.e.: The outcomes of these 10 dips/checks/refined-SPL-tests depend •on all inventive concepts of the claimed invention being lawful, •on its claim's well-definedness (= nonpreemptiveness), •on the claimed invention's patent-eligible creativity, and •on its nonidempotence.

Explaining this phenomenon – i.e. the preceding paragraphs – precisely and completely will establish the bulk of the subsequent argument. It will also explain the inevitably high but easily and completely controllable complexity of testing a claimed invention under § 101 – precisely: under the whole SPL – according to the *Mayo* decision.

Without meeting the *Mayo* decision's requirements, the interpretation of § 101, and hence testing a claimed emerging technology invention under it, is just an invitation of controversial though often well-

founded opinions, as they just culminated within the CAFC – after several softer predecessors, already indicating this culmination. Of them here only WildTangent's question as to CAFC's *Ultramercial* decision[2)] is discussed, as it exposes several "*Mayo* misunderstandings" of common interest.

Hence two remarks i) and ii) are in place: i) clarifying these 3 misunderstandings in *WildTangent's* interpretation of this CAFC decision, and ii) outlining the structure of the arguments in favor of *Alice's* Petition.

i) WildTangent's question in its Petition for Certiorari – and the criticism it embodies as to the *Ultramercial* decision – are based on two erroneous assumptions addressed below[2)], and a third one nowhere else falsified, but being crucial for interpreting *Mayo* and an issue as to this CAFC decision.

WildTangent's third erroneous assumption is that the CAFC's decision had recognized only a single, initially non-patent-eligible inventive concept of a claimed Ultramercial method invention

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[2] Let's ignore that an "abstract inventive concept" does not exist at all [19, p. 20, ftn 5] – rendering WildTangent's question obsolete, a priori. What then remains is, first of all, that the inseparability of a claimed invention under any SPL test, as explained in the Summary section, bars any answer to WildTangent's question: It has no answer, the finding of which would not involve testing this claimed invention also under all the other 3 §§ of 35 USC. I.e.: A thus separated § 101 test does not exist.

and it then "notionally upgraded" to a patent-eligible inventive concept of a claimed Ultramercial system invention, i.e. had changed this allegedly single inventive concept's "pragmatics" from being patent-noneligible to patent-eligible.

But – by contrast to WildTangent's assumption – any Ultramercial's claimed method invention comprises a whole series of "*Mayo*-type" inventive concepts (independent of its computer implementation). And, these are also clearly recognized as such by the CAFC's decision [1].

Nevertheless, WildTangent's Petition for Certiorari here also touches the above "double ditching" question [16]: The CAFC decision indeed confirmed the patent-eligibility of Ultramercial's claimed method invention only in conjunction with its implementation on a computer system.

According to the *Mayo* decision this indisputably means that the CAFC considered – without explicitly explaining this in its decision – these method inventive concepts as either a) being patent-noneligible or b) being not sufficing for its patentability. In both cases the inventive concept representing that this method is implemented on a computer system actually represents a powerful patent-eligible inventive concept, as it renders the system claim at issue either a) patent-eligible or b) patentable. The CAFC decision, self-identifying as being a § 101 decision, excludes b).

Yet, this view a) also is problematic – in a sense supporting WildTangent's as well as CLS's Petitions – due to the following consideration. The claimed system invention's property "is computer

implemented" is modeled by a concept of this invention's, being independent of its method's inventive concepts – the CAFC recognized (implicitly).

The CAFC just as the claimed invention's specification are mute as to the question, what this additional concept adds to the claimed method's patent-eligible inventivity/creativity – as the *Mayo* decision requires to be evaluated. Nothing alike is presented by this CAFC decision.

This does not mean that the CAFC decision is inconsistent in itself or to the *Mayo* decision. It has only a presentation weakness, as the patent-eligible inventivity/creativity contribution of this "computer implemented system" concept is pretty evident – just as in this CLS case [1].

In case of granting these Petitions, it will be elaborated in more detail, in both cases, why this "computer system implemented" concept often, and in particular here, is indeed an inventive concept – as seen by advanced IT, interpreting the Supreme Court's *KSR/Bilski/Mayo* line of decisions, breaking new ground in SPL precedents. Though, it would also argue in favor of the patent-eligibility of their methods (of not-computer implemented inventive concepts) as they are useful, new, and no abstract ideas only, i.e. well-defined.

ii) The WildTangent aspects addressed in **i)** arise with any computer-system implemented and even any model based invention. They all are clarified by the below arguments – as seen by advanced IT interpreting the *Mayo* decision.

As the Supreme Court requires achieving this clarification on top of the *Mayo*-type inventive concepts based SPL construct of thoughts – i.e. construing a refined claim construction for it, as explained by the WTAB – all its elaborations are invoked, first, by quoting its Section numbers I-V, to some adding explanations carried over from it.

Thereafter, these elaborations are complemented by Sections VI-VII of this brief. They will show in more detail than provided above •) that the *Mayo* decision had to require – due to the 4 §§ of SPL and their logical interpretation – a claimed invention's whole "requirement-/aspect-/concern-wise" SPL test and •) what is checked by its 10 completely separated SPL sub-tests.

Section VIII invites all interested parties to communications about the advanced IT arguments presented here as to the present § 101 and more generally the SPL problem. While these advanced IT arguments retrace and light the scientific way, which the *Mayo* decision requires to be taken in emerging technology inventions' tests under SPL – here shown that on it consistency in SPL precedents inevitably is enforced – e.g. the 7 Amicus Briefs of the WildTangent case don't strive for this consistency enforcement but believe the Supreme Court's clarification of the notion "abstract idea" would establish it already.

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I. see the WTAB [19]

II. see the WTAB [19]

III. see the WTAB [19]

IV. THE BEING OF INVENTIVE CONCEPTS

Due to the WTAB's word count limitations, some basic features of *Mayo*-type inventive concepts were not presented there, but here:

- An inventive concept of a claimed invention is not only one of its "technical facts", as disclosed by its patent(application)'s specification, but also the "legal fact" logically underlying it [19, p. 23]. Thus, an inventive concept is a claimed invention's legal fact establishing/embodying its respective technical fact, i.e. it represents a nested notional tupel.

  Inventive concepts hence are artificial notions representing the mental, jointly legal as well as technical building blocks of any patent. Every patent business practitioner actually does practically use them every day, when thinking about a patent – also if not being aware of them.
- Another issue is the relation of terms [19, ftn[5)]] to inventive concepts in patent(application)s, as terms are explicitly used in patent specifications' wordings, but inventive concepts hitherto usually not. But the *Mayo* decision's requirement statement for them implies that inventive concepts need not literally be quoted by patent specifications' wordings. *Mayo* implies even more: The names of inventive concepts may be freely chosen by the person analyzing the patent at issue, in particular such that it is self-descriptive in natural language (of the person of ordinary skill/creativity).
- Inventive concepts may be compound or elemen-

tary. Using a claimed invention's compound inventive concepts when testing it under the SPL of 35 USC is often misleading if not impossible [5]. Then disaggregating them into elementary inventive concepts is indispensable, which also greatly facilitates their checks under the SPL's different requirements/concerns (explained in the introductory remarks and leveraged on in Sections VI/VII).

But, there are several reasons, why for many claimed inventions – especially model based ones – also not all their (subject matter) creative elementary concepts are suitable for its inventive concepts (e.g. as not being independent and/or the sequence of discussing their disclosures may matter [5]).

[5] also shows that there are several additional logical, systematical, and psychological reasons, which would be felt by the average patent law practitioner as making a refined claim construction – based on *Mayo*-type inventive concepts – much more conclusive, purposeful, and natural than a classical claim construction.

The psychological meanings of the notions of "inventive concept as such" and in particular of "inventivity as such" of a claimed invention – the notion of inventivity being embedded by the notion of inventive concepts describing it and exceeding in its semantics the a posteriori formal definition provided in the WTAB and [5] – is not elaborated on, here. But its tight relation to SPL has been clarified in [6,7], based on a German Highest Court's decision, i.e. induced by the BGH. It in principle counts this inventivity (of a claimed invention) by the number of independent ideas its inventor must have created prior to finding it over prior art and skill. This notion of the BGH – it does not yet embody the legalistic

aspects represented by the *Mayo*-type inventive concepts, too – in principle coincides with the *KSR*'s notion of creativity and with *Mayo's* creative concept embodied by any one inventive concept. This creative concept then basically is nothing else but the solid representative of an independent creative flighty idea, i.e. models the latter precisely by an even property of the element it refers to – to be taken with sufficient caution [5,6,7,11,19].

V. *MAYO* ENFORCES CONSISTENCY AND PREDICTABILITY IN SPL PRECEDENTS

While much of this issue has been discussed in the WTAB, two more implications may be of interest.

- Having learned the lesson provided by the *Mayo* decision, looking at the "classical claim construction" with a minimum of scrutiny, it turns out to be fragmental and not goal-oriented, i.e. just antiquated in its today by advanced IT avoidable lack of conciseness – not at all apt to enforcing this consistency, in particular as to claimed emerging technology inventions.
- There is quite another achievement implied by the Supreme Court's *Mayo* decision: Eclectic efforts, such as the *KSR/Bilski* cases' TSM/MoT tests or other AI alikes, is obsolete – just as the USPTO's strange BRI of claims [14,21,5,9,15]. They namely do not enforce consistent/predictable SPL precedents, as the *Mayo* decision does – not to speak of its inducing semi-/fully-automatically construing a claimed invention's refined claim construction, when exploratively resp. conformatively testing it under SPL [11,5].

  These deficiencies apply especially to the evergreen "threshold" test as patent-eligibility test

for a claimed emerging technology invention: With such inventions it represents the end of any rationality in deciding their patent-eligibility. Consistency – here just another word for the rationality of science – is hence not achievable in SPL precedents deprived of rationality.

VI. *MAYO* IMPLIES DISAGGREGATING THE 4 COMPOUND SPL REQUIREMENTS INTO TODAY'S 10 ELEMENTARY ONES, AND: ALL THESE ELEMENTARY SPL CONCERNS ARE CHECKED BY THE 10 SPL TESTS

The Supreme Court's decisions clearly require that patent precedents cater to needs of the sectors of economy based on innovations, i.e. on emerging technologies. In *Mayo* it hence required warranting – as part of testing under 35 USC's SPL a claimed emerging technology invention – that

i.) its claim is not preemptive[3)], which is equivalent[4)] to warranting that its claimed invention represents not an "abstract idea" only – here suggested to check its meeting this requirement by the NAIO test[10)] – and

ii.) its claimed invention does embody an amount of patent-eligible creativity deserving patentability, due to at least one patent-eligible inventive concept disclosed by its specification, i.e. one or several such inventive concepts – here suggested to check its meeting this requirement by the NANO test[7)], assessing its patentability unless being idempotent[9)]).

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[3] For the mathematical definition of "preemptivity" see [5, Def 5]; see also WTAB [19, ftn.4].

[4] This equivalence is warranted by [5, Theorem 3].

In particular **i.)** means: The *Mayo* decision requires in testing such a claimed invention as to its meeting the 10 SPL requirements (= the 10 legal concerns of §§ 101/102/103) does comprise testing it as to SPL requirements hitherto partially ignored or unknown. I.e.: Such tests, too, are to be comprised by construing the refined claim construction for it.

Seen historically, the Supreme Court's line of KSR/Bilski/Mayo decisions – being of increasing scientificity, as any insight of them builds on top of its predecessor – took the "SPL know how" to a much higher level of development, not only in the US but internationally, than that it was on before *Mayo*.

This higher level of development is characterized by the *Mayo* decision's now unmistakable requirement – only seemingly being new but in truth embodied already by the 10 concerns of the 4 §§ 101/102/103/112 – to check within the patent-eligibility test of a claimed such invention alias a complete set of its inventive concepts[5)]), whether • its claim/claimed invention is "nonpreemptive" (requiring checking all its inventive concepts, their patent-eligible and non-patent-eligible ones, i.e. its "total" creativity[5)] – the legal requirement of this check is clarified by the end of Section VII), and • its patent-eligible inventive concepts are sufficient for qualifying it patentable, whereby the Supreme Court

- by its *Bilski* decision already required that such a claimed invention must not be an "abstract idea" only, by not having developed or disclosed or defined the claimed invention to a degree that also the scope of the claim claiming it is precisely defined, i.e. its preemptivity is excluded (see VII[5)]);
- by its *KSR* decision hinted already at the potential idempotence[9)] of a so identified amount of paten-

table creativity, identified by this set's patent-eligible inventive concepts.

Therefore, for a claimed invention, this line of Supreme Court decisions required in increasing clarity to refine the classical § 112 claim construction – at least for model based claimed inventions, such as *Bilski* and *Mayo* – by identifying a set of inventive concepts and assessing their lawful disclosures by § 112, its completeness[5)] and nonpreemptivity[10)] by § 101, their patent-eligible creativity[7)] by §§ 102/103, and their nonidempotence[9)] by § 101.

Accordingly, the CAFC made a move, by questioning the § 112 classical claim construction as to its "aspects" in the light of the *Mayo* decision. Such aspects, the CAFC asked for [10], are exactly the impacts of these *Mayo*-type inventive concepts on this invention's tests under these 3 §§ – though in [17] the CAFC did not discuss these aspects, unfortunately. Nevertheless one may assume that, by its aspects the CAFC, too, took notice of the SPL's "elementary concerns" to be taken care of in a claimed inventions patent-eligibility and patentability test – as the Supreme Court identified/described them by its § 101 interpretation in its *Mayo* decision.

Anyway, the claimed invention is patentable and patent-eligible if and only if all these 10 "CAFC aspects" alias the "Supreme Court's elementary 35 USC SPL concerns/requirements" are met by the claimed invention – whereby it actually needs clarification whether all 10 aspects/concerns/requirements indeed represent both Highest Courts' views at SPL precedents. It is evident that these aspects/requirements are the same for all claimed inventions, while the tests whether they are met by it are depending

on its (complete set of independent) inventive concepts, which are(is) not necessarily unique for it.

For a claimed invention, these 10 "CACF aspects" alias "Supreme Court's elementary SPL concerns" – in regard of which its refined claim construction is to be construed under their respective 10 refined SPL (sub-)tests, tests 2-10 being executable iteratively and in arbitrary sequences, but all 10 test eventually to be passed one complete set of inventive concepts – are (keeping in mind the just mentioned missing confirmations): With

- § 112, the "well-definedness of these inventive concepts", i.e. their being 1) disaggregated into elementary inventive concepts, and their uses in §§ 102/103/102 are being disclosed 2) lawfully, 3) definitively, and 4) enablingly;
- §§ 102/103, the "novelty/nonobviousness of the invention", i.e. their 5) independence, and 6) non-equivalence, and its 7) sufficient amount of patent-eligible inventivity;
- § 101, the "patent-eligibility of this invention", i.e. its not being 8) only one or several natural phenomenons, or 9) idempotent, or 10) an abstract idea only alias its claim being preemptive.

For these 10 "CAFC-aspects" [10] holds: Construing a classical claim construction ignores of aspects 2)-4) of the claimed invention's inventive concepts that these must meet also the "§§ 102/103/101 aspects", i.e. the aspects 5)-10) – while a refined claim construction warrants that these inventive concepts meet, in addition to aspects 2)-4), also the aspects 5)-10), i.e. they meet the limitations imposed on its test under §§ 102/103/101, too. Warranting this is easily (semi-)automatically possible iff testing aspect 1) also delivers "true", i.e. all these inventive

concepts are disaggregations of original compound ones into elementary ones [19,11,5,15].

VII. THE 10 SPL SUB-TESTS *MAYO* INDUCES

The preceding Section showed the *Mayo* decision's insights – and their historic development – into the requirements stated by the 4 §§ 101/102/103/112 and to be met also by a claimed emerging technology invention for being granted patent law protection. Thus, the *Mayo* decision had to require, by logical reasons and the SPL of 35 USC, for this invention its "10 requirements-/aspects-/concerns-wise" SPL sub-tests just identified – whereby the first part of this brief showed that they are separable, i.e. straightforward executable [11].

The below sequence of 7 explanatory steps now becomes specific about what must be checked by the 10 separate refined SPL tests. It only touches solely the key *Mayo*-notion of an "abstract idea" [5].

These 10 checks may be executed highly iteratively and in arbitrary order, for meeting the *Mayo* decision's requirement that a below set S and its elements (not necessarily unique) pass them all. Note: This sequence shows the amazing interrelations between these "CAFC-aspects" [10] – clarified therein.

1) Test 1 ("T1") checks the disaggregation of any inventive concepts into conjunctions of elementary/concern-separated ones, explained above [19,5].

2) The T2-T4 assess that these inventive concepts meet the requirements stated by the *Markman/Phillips/Noah* decisions.

3) The T5-T6 assess that the remaining 4 tests T7-T10 are performed by using a set S of inven-

tive concepts passing T1-T4 and comprising only independent[5)] and non-equivalent[6)] elements.

4) T10 assesses that S passes the NAIO test[10)], i.e. that the claimed invention is "not an abstract idea only". The claimed invention resp. its claim – then defined by S – is "nonpreemptive"[3)].

   Mathematical KR shows the nonpreemptivity of it resp. its claim is an invariant over all existing sets S – for nonpathological claimed inventions with First Order Logic inventive concepts [5], i.e. for probably all inventions hitherto.

5) Then T8 assesses[8)] that the set S^{pe} of S'es patent-eligible inventive concepts is $\neq\Phi$. Then the claimed invention is "principally patent-eligible".

6) Then T7 assesses that S^{pe} passes the NANO test, i.e. that the claimed invention is patentable[7)].

7) Then T9 assesses[9)] that the claimed invention is nonidempotent – it then is patent-eligible, too.

These very short descriptions of the semantics alias CAFC-aspects [10] of the sub-tests T5-T10 need at least the explanations provided by[5),6),7),8),9),10)] and

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5 The notion of "independency" means: None of the inventive concepts is implied by the other ones [5]. A set of inventive concepts is called "complete", if it passes step 2 of the NAIO test[10)].

6 The notion of "equivalence" of inventive concepts means they are different from each other but only in a legally irrelevant sense as – almost? – useless (and is scientifically not yet completely clarified as to its relations to "idempotence", the definition of a claim's scope, and "equivalent inventions").

the below bullet points, before clarifying the ubiquitous "abstract idea" uncertainty in interpreting § 101 – in Section VIII discussed in its principle significance as compared to the advanced IT arguments provided here.

- All these considerations are indispensable in an unquestionable SPL test of a claimed emerging technology invention[8),9)].

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[7] The "NANO test" basically comprises 4 steps, checking all "anticipation combinations, ACs" of S derivable from any prior art documents' invention:
1) generating the ANC matrix, its lines representing for any prior art document its invention, and its columns representing the elements of S;
2) generating, for any entry in the ANC matrix, its "Anticipates/Nonants/Contradicts" relation;
3) automatically deriving from the ANC matrix the {AC} with the minimal number Q^{plcs} of NC-entries;
4) automatically delivering $<Q^{plcs},\{AC\}>$ as the indication of the claimed inventions patent-eligible creativity over the prior art docs.

[8] T8 does not yet decide by assessing $S^{pe} \neq \Phi$ that the claimed invention is patent-eligible, as it still may be idempotent. This is assessable only after its NANO test – determining $Q^{plcs}>0$, otherwise it is not novel – delivered its {AC} for this check.

[9] T9 deals with the phenomenon that – although the NANO test determines $Q^{plcs} \gg 0$ for the claimed invention – due to "near equivalences" or "near exceptional pragmatics" or "lack of problem specificity or 20-year-solvability or self-existence" or other exceptional conditions. See bracket in ftn[6)].

- By hinting into their direction the *Mayo* decision has not opened a Pandora's Box, but has shut it: All these legal aspects and all their puzzling and dizzying interrelation now are stereotypic and simple and hence apt to be taken care of automatically, requiring Highest Courts' decisions refining the *Mayo* decision as to some issues in[5)-10)].
- While hitherto some of these issues have not even been thought of, the *Mayo* decision provides – especially by its notion of "inventive concept", as explained in WTAB [5] – the fundamental guidance for how to elaborate on them. The *Mayo* decision's other clear guidance providing key notion – qualifying a claimed invention as "abstract idea" – is explained next.

Firstly: Many inventions/innovations undergo a "status nascendi". Two famous examples from mathematics/physics are "complex functions" and the "energy operator", which both could not get out from this blurring state for years – during this period causing many controversies among scientists – until Gauss resp. Hilbert saw the deficiencies to be removed from them: In both cases incomplete definitions of what these inventions were thought to be.

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[10] The "NAIO test" basically comprises 4 steps [5]:

1) verifying that the specification of the claimed invention discloses a problem, P.0, described to be solved by it, the latter being described by S;
2) verifying, using the inventive concepts of S, that the claimed invention solves P.0;
3) verifying that P.0 is not solved by the claimed invention, if therein an inventive concept of S is removed or relaxed;
4) if all verifications 1)-3) apply, then this claimed invention is "not an abstract idea only".

Secondly: The Supreme Court replaced "status nascendi" by – in the patenting context – better term "abstract idea" for this blurring as incompletely defined invention in this state. Indeed then just an "abstract idea" exists of this invention. I.e.: The term "abstract idea" precisely describes its state. A patent granted to such an abstract idea would be "preemptive": Its scope of monopoly definitively comprises inventions not thought of by the inventor – as not disclosed by the resp. inventive concept in its specification[10)] – which he/she therefore does not deserve.

Thirdly: The NAIO test[10)] assesses a claimed invention is nonpreemptive – i.e. is not an "abstract idea" only – by checking the problem is identified it is invented to solve and all inventive concepts are indispensable. It thus impedes its creation in no way.

VIII. 7 AMICUS BRIEFS' APPROACH TO PATENT-ELIGIBILITY IN WILDTANGENT

As to the Mayo decision's interpretation of § 101, hitherto no notice has been taken publicly – by the community of patent law firms interested in this interpretation – of the advanced IT arguments presented here, which retrace/light the scientific way the *Mayo* decision requires to be taken in testing emerging technology inventions under § 101.

The WildTangent Petition's 7 Amicus Briefs are exemplary: Anyone tells right from its outset that it clings to misunderstandings of the *Mayo* decision (as identified in [19], yet here even worse). These misunderstandings bar it from thinking twice about the clear requirement statements comprised by the *Mayo* decision and their implications as to the interpretation of § 101. They even made it immediately jump onto exactly one of the *Mayo* decision's

crucial but secondary terms, namely "abstract idea", thereby completely ignoring that the *Mayo* decision's crucial primary term is "inventive concept" and that it uses further new key terms, such as "preemptive".

None of these three terms has any meaning in classical SPL precedents – and uneasiness about the latter has repeatedly been conveyed by the Supreme Court's *KSR/Bilski/Mayo* decisions. Hence the meanings of these new *Mayo* terms got to be determined in a generic sense such that the *Mayo* decision's wording identifies a clean way out from the current SPL dilemma, which the Supreme Court surely both had in mind when "word-smithing" this decision. But this kind of determining these terms' meanings didn't happen!

Not because this is a farfetched idea. Quite the contrary: It is nearby – by just looking into one of the presently most popular areas of research, namely advanced IT [2], where the term/notion of "concept", as used by the Mayo decision, is known since decades [3,4,19,5]. Then advanced IT may derive from the *Mayo* decision – and in view of the common knowledge that most inventions undergo the evolutionary process (as outlined by the end of Section VII) – the meaning also of the term "abstract idea" (as also outlined in VII) and that of "preemptive", as shown in the WTAB [5,19] and elaborated on here. Hence, broadly interpreting the *Mayo* terms by these established meanings should have been obvious.

Instead, the untenable belief prevails in great breadth – also with these 7 Amicus Briefs, if their uncertainties are ignored – that the Supreme Court and/or the CAFC could reestablish the missing consistency in SPL precedents by a simpler alternative to the *Mayo* way.

- The theoretical alleged such alternative were the *Mayo* decision's interpretation within the classical pre-*Mayo* SPL paradigm. But this is logically impossible, as noticed already by WTAB [5,15,19].
- The practical alleged option were to achieve consistency the administrative way by imposing on all judges some absolutely binding directive waving rationality therein and also in their freedom to decide. This option is constitutionally impossible.

Thus, the only viable way to consistency in SPL precedents is the basically scientific one suggested by the Mayo decision, as interpreted by advanced IT.

Unperturbed by such very basic thoughts, inevitably induced by the Supreme Court's *KSR/Bilski/Mayo* line of decisions: Hitherto the classical SPL doctrine remains undisputed, though untenable in the future – namely that consistency in SPL precedents, also as to claimed emerging technology inventions, is achievable without taking the classical SPL doctrine/paradigm to a higher level of evolution, as required by the *Mayo* decision to this end.

Consequently, the 7 Amicus Briefs – full of excellent ideas about the reasons of the current patent-eligibility dilemma and about its detrimental impacts on economy – suggest solutions for its resolution by coming forward with their individual opinions on the meaning of the term "abstract idea", though not explaining why these should enforce consistency of SPL precedents.

Due to this tunnel vision on the today's problem of § 101 precedents, it is logically impossible to recognize that – whatever their notions of "abstract idea" are – there is no way of testing a claimed invention under § 101 without also testing it under §

112/102/103, as shown above. I.e., that no "self-contained" patent-eligibility test exists, at all.

It may well be that a broader awareness of the big step forward in SPL precedents, achieved by the Supreme Court's *Mayo* decision, will emerge only when an Internet server will provide a so enabled "Patent Technology" service – to begin with: "SPL Technology" service – and thus demonstrate its by *Mayo* enabled amazing practical as well as legal power [5,9].

CONCLUSION

The WTAB [19] already stated that the Supreme Court's *Mayo* decision managed to overcome – by proceeding exactly as advanced IT would do – by its (implied) refined claim construction the deficiencies of the classical claim construction and in its wake the dilemma of inconsistency of SPL precedents as to claimed emerging technology inventions.

This Amicus Brief supports CLS's basically concurring Petition to WildTangent's one. It hence continues in providing advanced IT evidence that the Mayo decision required way of avoiding such dilemmas is not only by Constitution indispensable, but also that Mayo puts US SPL precedents on a solid as scientific basis and being future proof as economically sound in any regard – thus clearly promoting innovations in emerging technologies [20].

This would rapidly impact on all national/regional patent systems worldwide, as today beneficial advanced IT based progress spreads internationally – reminding where it came from.

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