Mayo / Alice – The Supreme Court’s Requirement Statement as to Semiotics in Substantive Patent Law (“SPL”) & Emerging Technology Claimed Inventions (“ET CI”s)

Sigrum Schindler
TU Berlin & TELES Patent Rights International GmbH
Berlin
Germany
s.schindler@teles.de

Abstract—The patent law community should be familiar, in principle at least, with what is reported here, as expected and guided to by the Supreme Court: By its Mayo/Alice decisions, it semiotically expanded SPL by a series of new SPL terms/meanings and required their use in testing ET CIs for satisfying SPL – for adjusting SPL precedents to the needs of ET CIs, caused by their invisibility/intangibility/fictionality, their R&D being extremely expensive, and their exclusive/unique potential to preserve the society’s wealth.

Former publications already partially achieved this ET CI semiotics driven scientification of SPL: By first defining the meanings of the established SPL terms by their absolutely unquestionable mathematical representation (using solely “Finite First Order Logic, “FFOL” and basics of Set Theory). Hitherto, these established SPL terms’ meanings have never anywhere been precisely defined, i.e. rationalized – instead, the patent community since ever simply (and erroneously) assumed to precisely and completely understand them. Thus, the PTO, the District Courts, and even the CAFC interpreted them inconsistently (as proven e.g. by the multiple clashes in the CAFC). The Mayo-based FSTP-Test (see below) (FSTP = Facts Screening/Transforming/Presenting) enabled this rationalization, first time – and the hitherto unknown mathematical definitions of the established SPL key terms’ meanings. This scientized the pre-Mayo/Alice SPL.

This paper additionally deals with the much more complex new terms’ meanings semiotically introduced into SPL by Mayo/Alice – yet still in natural language syntax/semantics. This invites sloppiness, here excluded by providing for them mathematical definitions, too. This hence scientizes also the post-Mayo/Alice SPL.

Keywords—Semiotics, Mathematization, Preemptivity, Abstract Idea, Patent-eligible, Claim construction

I. RECENT SPL RESULTS ACHIEVED BY MATHEMATICAL SEMIOTICS AND KNOWLEDGE REPRESENTATION

The patent law community should be familiar, in principle at least, with what is reported here, as expected and guided to by the Supreme Court1: By its Mayo/Alice decisions, it semiotically expanded SPL by a series of new SPL terms/meanings and required their use in testing ET CIs for satisfying SPL – for adjusting SPL precedents to the needs of ET CIs, caused by their invisibility/intangibility/fictionality, their R&D being extremely expensive, and their exclusive/unique potential to preserve the society’s wealth.

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tionality, their R&D being extremely expensive, and their exclusive/unique potential to preserve the society’s wealth. [171,175,194] already partially achieved this ET CI semiotics driven scientification of SPL: By first defining the meanings of the established SPL terms by their absolutely unquestionable mathematical representation (using solely “Finite First Order Logic, “FFOL” and basics of Set Theory). Hitherto, these established SPL terms’ meanings have never anywhere been precisely defined, i.e. rationalized – instead, the patent community since ever simply (and erroneously) assumed to precisely and completely understand them. Thus, the PTO, the District Courts, and even the CAFC interpreted them inconsistently (as proven e.g. by the multiple clashes in the CAFC). The Mayo-based FSTP-Test (FSTP = Facts Screening/Transforming/Presenting) of FIGs 1-2 enabled this rationalization, first time – and the hitherto unknown mathematical definitions of the established SPL key terms’ meanings, see D.1-D.6 in FIG 0. This scientized the pre-Mayo/Alice SPL.

The Definitions D.7-D.12 in FIG 0 then deal with the much more complex new terms’ meanings semiotically introduced into SPL by Mayo/Alice – yet still in natural language syntax/semantics. This invites sloppiness, here excluded by providing for them mathematical definitions, too – as shown by FIG 3. This hence scientizes also the post-Mayo/Alice SPL<sup>1</sup>.

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**Legend to FIG 0:**

- Mayo axiomatically introduced – by its Mayo-AD<sup>2</sup> into SPL the new meaning “inventive concept, inC<sub>1</sub>” potentially of category “ip-inc”, or its subcategory “tp/ip-inc”, see FIG 3.
- Yellow mark-ups show, what in FIG 3 is axiomized and mathematized – i.e. scientized – SPL.
- D.1-6 are already mathematized, using “natural language glue”, as usual in Mathematics.<sup>3</sup>

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<sup>1</sup> The FIGs 0-2 are replica from [194,198], whereby some changes were made in FIG 0 by rearranging “Mathematical Definitions, MDs” into the fn 2<sup>nd</sup>-<sup>4th</sup>, for here focussing on “Axiomatic Definitions, ADs” and “Legal Definitions, LDs”, as elaborated on in FIG 3.

By the “use-hierarchy” [194<sup>5</sup>] between these definitions holds: Post-Mayo/Alice-LDs use Mayo/Alice-ADs and pre-Mayo/Alice-LDs (and by them required Mayo/Alice-MDs resp. pre-Mayo/Alice-MDs, both not at issue here).

<sup>2</sup> Its meaning is a dramatic simplification of the “concept” notion today in common use in KR, DL, … [2], in database modeling since the 70s, and in detail explained as to its “invention” dedication earlier. I.e., here its intuitive understanding vastly suffices, as used within the Mayo/Alice framework – see the point “D.0 in” [194].

<sup>3</sup> Two such MDs are: ∀s<sub>Σ</sub> and an s let denote the meaning of the relation □ “s≡s” if dom(domain)=domain(s)×TS(s)\TS(s)≠Φ, and s “≡" is an ipskip tp/ip-inc". Worderings of ADs/LDs are here also slightly changed for clarity<sup>4</sup>.

For a tp/ip-CL, let “scope(tp/ip-CL)” be, of the original CI, the modification of its S<sub>θ</sub> resulting from modifying its DOMs and/or TSes, first by its ip-incS, assessing ip-CL is preemptive, and then by its tp-incS, potentially assessing this tp/ip-CL is a non-preemptive user-application – whereby the original CI may be preemptive or not.

<sup>4</sup> necessary for consistent and predictable SPL precedents on ET CI, just as sufficient, as far as currently recognizable.
- D.8-10 and D.12 are fully mathematized, once the yellow sections in D.7 and D.11 are.
- Yet, the Supreme Court nowhere tells, what exactly within an ip-Cl – a “downstream application comprising an ip-inC, hence per se patent-noneligible as preemptive” [194^6] – “transforms” it into a (user) application of this ip-Cl, being patent-eligible by Alice as non-preemptive [194^6], though not using the qualifier ‘user’.
- Instead, Alice explicates, what Mayo had already hinted at: This transformation is performed by “combining” CI’s elements, i.e. it comprises its one/several transforming element(s). The in Alice allegedly missing item/s thus is/are this/these one/several transforming element/s, thus modeling the Mayo/Alice framework by a subcategory of ip-inCs/elements – (potentially) warranting ip-Cl’s transformation into patent-eligibility, i.e. neutralizing its preemptivity.

FIG 3 shows in detail that Mayo/Alice induced mathematical D.17/11 axioms, enabling scientifically defining 1) for the first time “all classic SPL notions”, 1) in SPL hitherto unknown new semantics – “inventive concept, inC”/“ip-inC”/“tp-inC”^2,e – and 2) the then unavoidable new legal notions: “preemptivity”/“abstract idea”/“user-/downstream application”.

Figure 1. Bold lines show the classical claim construction’s test.i’s, dashed ones what Mayo/Biosig/Alice additionally require (refined claim construction). 

ε) show a “use hierarchy” of test.i’s, θ) expand it to total dependency.

FIG 1 provides an outline of the philosophy carrying the FSTP-Test, shown and discussed by FIG 2.

Legend to FIG 1:
- The SPL box, on top, shows the 4 Sections of 35 USC SPL, the requirements of which – they encode the society’s concerns about granting temporary monopolies on innovations immediately after their creation for providing an incentive for publishing and marketing them quickly – must be met by the ET CI under SPL test.
- The FSTP-Test box, at the bottom, shows these 10 concerns of the society as to SPL: These concerns are encoded by the 4 SPL Sections as their requirement statements – which hence must be met alias satisfied by the ET CI under SPL test.
- The bold lines show what is tested by the classical claim construction for an ET CI.
- The dashed lines show what indispensably must additionally be tested for an ET CI for its preciseness and completeness in its refined claim construction – due to an ET CI’s invisibility/intangibility/fictionality.
- All tests must be executed for any “Generative Set, GS(ET CI)” of inventive concepts generating this ET CI – of which only a finite number of versions exist, as the problem is of “Finite First Order Logic, FFOL” (see FIG 2).
- Here is assumed, for simplicity and w.l.o.g., that just 1 GS exists, i.e. just 1 interpretation of the ET CI under FSTP-Test. Even for a single GS alias “Technical Teaching 0, TT0” – for brevity often called just “S” – there may be several “Realization Sets, S^R” of this single TT0 for the FSTP-Test (see D.1 above) [45]. S^R exists only if its TT0’ has passed the FSTP-Test. If |S^R|>1, no S^R alone may decide TT0’s passing the FSTP-Test.
- If this ET CI had several S/interpretations, only one or none TT0 may satisfy SPL.
- 1) An ET CI passing the FSTP-Test is legally absolutely robust. ■) Its alleged infringement by or infringing an ET CI is easily, exactly, and non-deniably determinable.
The **FSTP** test is a computer implemented method – defining also a system – for testing
- under a given Finite First Order Logic Legal Invention Norm, FFOLLIN, a given Claimed Invention, CFFOLLIN, which has a given interpretation T0FFOLLIN represented by its Generative Set of TT0FFOLLIN $S_{\text{FFOLLIN}}$,
- $TT0_{\text{FFOLLIN}}$ – defined by $S_{\text{BADFFOLLIN}} := \{\text{BAD-crC0n}_{\text{FFOLLIN}} | 1 \leq n \leq N\}$ & $S_{\text{FFOLLIN}} := \{\text{BED-crC0k}_{\text{FFOLLIN}} | 1 \leq n \leq N : \text{BAD-crC0n}_{\text{FFOLLIN}} \land \text{1}^{\text{st}}\text{skN}_{\text{K0n}} \text{BED-crC0k}_{\text{FFOLLIN}}\}$, whether this FFOLLIN is satisfied by $TT0_{\text{FFOLLIN}}$ alias $S_{\text{FFOLLIN}}$,
- whereby FFOLLIN is defined to comprise a conjunction of 10 given $\text{FSTP}_{\text{test.o}}$ of $TT0_{\text{FFOLLIN}}$ alias $S_{\text{FFOLLIN}}$, i.e. $\land_{1 \leq o \leq 10} \text{STP}_{\text{test.o}}$ – for brevity in the sequel the index $\text{FFOLLIN}$ being omitted, any FSTP-test.o abbr. by just "o", $1 \leq o \leq 10$, and for $6 \leq o \leq 10$ the stereotypic “over model and posc” omitted – whereby the claimed invention for any TT0 prompts the CI’s user to input to it
- the given information $\forall TT0\text{-elements X0n of TT0}, 1 \leq n \leq N, \land \forall$ binary abstract and elementary disclosed creative concepts of all X0n, BAD-crC0n resp. BED-crC0n $\forall$ for $\forall$T0-(dummy-)elements Xin peer to X0n, $1 \leq i \leq |N| \land 1 \leq n \leq N, \land \forall$ binary abstract and elementary disclosed (dummy-)creative concepts, crCin, of all (dummy-)elements Xin, called BAD-crCin resp. BED-crCin, as well as $\forall$ below justifications, by stepwise prompting, i.e., for testing the CI input to it as follows:
  1) (a) $S_{\text{BAD}} := \{\text{BAD-crC0n} | 1 \leq n \leq N : \text{BAD-crC0n} = \text{1}^{\text{st}}\text{skN}_{\text{K0n}} \text{BED-crC0k}\}$
     (b) justo\(1 \leq n \leq N\):
       BAD-crC0n is **definite**,
    (c) justo\(1 \leq n \leq N\) & justo\(1 \leq k \leq K\):
       BED-crC0k is **definite** & $\forall$ patent-neligible BED-crC0k* are identified;
    (d) justo\(\forall S_{\text{BAD}}\):
       BED-crC0k = $\land_{1 \leq n \leq N\text{skN}_{\text{K0n}}} \text{BED-crC0k}$;
    2) justo\(\forall S_{\text{BAD}}\):
       $\text{S} \land \text{BAD-crC0k} \in C_{\text{BAD}}$ are **lawfully disclosed**;
    3) justo\(\forall S_{\text{BAD}}\):
       **Independence-test passed** S is well-defined&independent over model;
    4) justo\(\forall S_{\text{BAD}}\):
       **KSR-test passed** S is well-defined over posc;
    5) justo\(\forall S_{\text{BAD}}\):
       TT0’s implementation by S is enableingly lawfully disclosed;
    6) justo\(\forall S_{\text{BAD}}\):
       **Bilski-test passed** TT0 is non-preemptive;
    7) justo\(\forall S_{\text{BAD}}\):
       **Alice-test passed** TT0 is patent-eligible;
    8) justo\(\forall S_{\text{BAD}}\):
       **Biosig-test passed** TT0 is definite;
    9) justo\(\forall S_{\text{BAD}}\):
       RS-Definiteness-test passed RS is well-defined over TT0;
  10) justo\(\forall S_{\text{BAD}}\):
       **Graham-test passed** TT0 is patentable.

_Figure 2._ The FSTP test, the passing of which is necessary and sufficient for a CI’s TT0 satisfying SPL
At a first glance, the below FSTP-Test seems tough, but at a second one it is easy to grasp.

**Legend to FIG 2:**
- The FSTP-Test comprises the 10 FSTP-test’s, in total checking a CI for its satisfying SPL. This is the case iff CI meets all 10 concerns legally encoded by SPL, i.e. by 35 USC §§101/102/103/112 – as outlined by FIG 1.
- It prompts the user to input, for this CI from dc0, first its elements X0n and their modeled compound inventive concepts BAD-X0n and as many elementary inventive concepts BED-crC0k as it is able to identify, $1 \leq n \leq N, 1 \leq k \leq K\ast$, which defines CI’s S (see FIG 1) – whereby the user also identifies all BAD-X0n* and BED-crC0k* subject to a patent-eligibility exemption.
- The FSTP-test1 is the **Mayo** test, though refined – as often required for being meaningful, see [6,7] – by disaggregating TT0’s BAD-inCs into equivalent joint compositions of BED-inCs.
- Also the other FSTP-testi, i>1, not named by Supreme Court decisions are not yet noticed by SPL precedents, though indispensable for exactly analyzing ET Ci’s – i.e. consistent SPL precedents on them. KSR-test4 is only indicative – its definition impacts on the Graham-test10 – and both of them avoid the logical glitches tolerated by their classical versions.
- RS-Definiteness-test9 must in principle take for any prior art document.i/TTi, if there is any, peer steps to those taken for doc0/TT0 in test1. Practically, this may vastly be simplified [6,7].
- The FSTP-Test is the logically indispensable and most flexible procedure for acquiring and evaluating all technically and legally relevant information, based on user input, about a CI. I.e.: The FSTP-Test evidently is not an algorithm/program but an algorithm/program “scheme” – as it comprises any operational implementation of a necessary & sufficient Mayo/Alice test.
- Papers in preparation will show that the FSTP-Test also can be used for improving as to an ET CI, the creativity of its inventor (as indicated by the final conclusion in the legend of FIG1 [137]), as well as in a legal way a “soft-scope (ET CI)”, potentially much larger than “scope (ET CI)” [202].
II. TWO ADVANTAGES OF SCIENTIZING ALL SPL NOTIONS

This first advantage is to show: There is no chance to understand all the intricacies of SPL applied to ET CIs (i.e. implied by the Mayo/Alice framework) without getting familiar with the scientific fundament the Supreme Court’s interpretations of SPL rests on⁹ – otherwise uncertainties occur. Even the excellent IEG project run by the USPTO and its dozens of exemplary interpretations of this framework provide just starters’ know-how about SPL applied to ET CIs: The most recent event covering this know-how transfer problem ahead [201], just as all the other qualification initiatives recently launched by the USPTO [e.g. 183-195], unintentionally but univocally confirmed this problem³ab. Though: Help is coming up [182] – even reaching much further than just facilitating this know-how transfer [e.g. 198].

This second advantage is to complete the partial SPL scientification of FIG 0 by providing the axiomized mathematical definitions⁸b of also those Mayo/Alice notions it left informal and to present them by FIG 3 – i.e. “preemptivity”/“abstract idea”/“substantially more than” and the 3 mathematized axioms indispensable to this end. While this rigor never has been heard before as to SPL precedents on ET CIs, this scientification is yet easily grasped once is understood: The Supreme Court itself⁵ indeed eventually had to put forward these new meanings. Namely, deciding by SPL on ET CIs on the basis of the established meanings only – i.e. without refining them for meeting the ET CIs’ robustness/predictability requirements – evidently got courts into serious confusions, as massively encountered by the CAFC. By contrast, using these fully scientized semiotic meanings in SPL tests of ET CIs, even induced and enabled developing totally unexpected and extremely strong results, such as:

**THEOREM:** “Any non-pathologic ET CI may be upgraded, by the FSTP-Test, to become legally absolutely robust. Depending on the creativity effort invested, the scope(ET CI) would thereby controllably shrink or grow”.

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⁹.a The intricacies explained here are not Mathematics caused, i.e. no academic frills. For ET CIs these booby traps really exist! Only an exact Patent Technology is capable of providing the dependable way on which they are avoided, i.e. leading to consistent SPL precedents on ET CIs. Refusing to accept this level of refined thinking puts the whole SPL into jeopardy.

⁹.b Any axiom in Mathematics performs, for a part of the non-rational context of some mathematical context, the former’s transformation into this context’s rationality, i.e. is “rationality-making” in this mathematical context, i.e. need not be a semiotic instrument as it may not yet be “meaning-making” (meaning as understood in linguistics and semiotics). In Physics, its axioms gravity and time immediately perform meaning-making – here an AD may serve both purposes, as in Maths⁵ab.

Riemann discovered a today famous kind of mathematical axioms dealing with Euclid’s parallelism problem: May two parallel straight lines cut each other? Known to exist for 2000+ years, during all that time parallels were assumed to stretch on a plane in a 3-dimensional space as known since ever – establishing the known mathematical context of this problem. A part of the non-rational in this context then is: May this plane be embedded in a then totally unknown as bunched space, or the space spanned by this plane internally bunched in a totally unknown way? During all these 2000+ years, both questions would have addressed metaphysics, i.e. the irrational (Actually, in both cases parallels may cut).

In other words: Adding one/several axiom/s to a mathematical space may be rationality-making for this mathematical context (e.g. enforcing the one or the other above answer), but need per se evidently not yet enable nonpreemptive meaning-making (as a mathematical space still may be inseparable). Though, adding axiom/s to a mathematical space may also model a user application enabling nonpreemptive meaning-making, too (e.g., a person on earth watching the color of light coming from an object in outer space, while the sun is crossing the way of light from this object to the earth, would observe a red-shift in this light as this interference is arising, due the sun’s ‘gravity impact on space’ axiom, which thus evidently enables nonpreemptive meaning-making).

Thus, while for many ET CIs the distinction between their being user- or downstream-applications (of their invented usefulness they embody) indeed determines whether they represent nonpreemptive semiotic meaning-making, as suggested by Alice, this distinction need not always lead to this end – requiring further considerations, i.e. a refined Alice interpretation.

⁹.c The post-Mayo/Alice higher semiotic SPL level is much more than just a higher abstraction level – as in System Design defined by hiding lower level known semantics and adding higher level a priori known semantics [156,182]. By contrast: The post-Mayo/Alice higher semiotic SPL level ■ defines, by mathematical axioms, hitherto totally unknown SPL semantics, and ■ mathematically derives, from them and a priori known SPL semantics, additional hitherto totally unknown SPL semantics. This applies to the Supreme Court’s semiotic SPL level of notional development just as to any ET CI’s such level.
AD.1: “TT0-REALIZATION SET”;

\[ S^R := \{ \forall s_0 \forall v_0 : \exists s_0 r_0 \forall c_T (s_0) \ldots \forall s_0 r_0 k_T (s_0 k) \} \land (a,b) \land (e). \]

LD.2: “SCOPE(TT0)”:

S is called “scope(TT0)” resp. “scope(CD)”.

LD.3: “TT0′ = TT0”:

A TT0′ is called to be “equal,” “=” to TT0 if \( S^R = S^R \).

LD.4: “TT0′ = SCOPE(TT0)”:

A TT0′ is called to “belong to scope(TT0)” if \( S^R \subseteq S^R \).

LD.5: “TT0′ VIOLATES TT0”:

A TT0′ to SCOPE(TT0) is called to “violate” TT0 if \( S^R \not\subseteq S^R \).

LD.6: “TT0 IS DEFINITE”:

A TT0′ is called to be “definite” if it passes the FSTP-Test.

AD.7: “inc = ip-inc”:

“An inC with its TS being too large resp. becoming larger” \( \text{4.b} \).

This inC category is called “improvement prone, ip-inC”.

LD.8: “PREEMPTIVITY”:

A TT0 is called “preemptive” if \( \exists TT0 \neq TT0 \) passing the FSTP-Test: \( \text{scope(TT0)} \neq \emptyset \land \exists k \in [1, k]: (s_k \neq s_k) \lor (s_k = s_k) \).

LD.9: “ABSTRACT IDEA”:

A TT0 is called an “abstract idea” if \( \exists TT0 \neq TT0 \) passing the FSTP-Test: \( \text{scope(TT0)} \neq \emptyset \land \exists k \in [1, k]: (s_k \neq s_k) \lor (s_k = s_k) \).

LD.10: “PATENT-ELIGIBILITY”:

A TT0 is called “patent-eligible” if it is nonpreemptive.

AD.11: “ip-inC = tp/ip-inC” \( \text{4.b} \):

“A tp/ip-inC tdds its inC into disclosed user-applications of CI”.

This ip-inC subcategory is called “transformation-prone, tp”.

LD.12: “SUBSTAN. MORE, ‘>>’”:

A TT0 is called “substantially more than” TT0′ if \( TT0' := \forall k(\text{Bk)} \land \text{Bk} \neq \text{ip} \land \exists k' \in [1, k]: (s_k = s_k) \land \text{Bk} \neq \text{ip} \land (TT0' := \forall k(\text{Bk)} \land \text{Bk} \neq \text{ip} \land \exists k' \in [1, k]: (s_k = s_k) \land \text{Bk} \neq \text{ip} \).

Figure 3. The Scientized Mayo/Alice SPL Notions Enable Objective Decisions on ET CIs’ Patent-Eligibility

Legend to FIG 3:

- Sec2.3x4 for ADs, LDs, and the semiotic use hierarchy between them, indicated by line spacing.
- LD 2-6 are not independent of Mayo/Bilski, as [194] explains in detail – without the FSTP-Test, induced by Mayo, these 5 legal definitions don’t exist, as \( S^R \) cannot be defined. I.e.: The classical, non-refined claim interpretation & construction is logically totally obscure, right from its outset \( [4.a] \).
- For the axiomatic definitions AD.1/7/11 only “atomic semiotic meanings” are used, as told by Analytic Philosophy \( [1.b] \).
- This “atomicity requirement” is, just as “quantification”, universal in scientizing a whatsoever knowledge area and has been encountered within FSTP-Technology already when disaggregating compound creative concepts into elementary ones, discussed earlier.
- All mathematical LDs, in FIG 3, are mathematical expressions right of their “if and only if”s.
- All mathematical ADs of a TT0’s inCs \( [4.e] \), ip-inCs, and tp/ip-inCs in AD.1/7/11 are unconditionally provided within the right side quotient marks. Thereby, AD.1 is already a mathematical expression defining its semiotic meaning, and AD.7/11 may be put as mathematical expressions, too:

- for AD.7 by “3ip-inC cS --> TT0' # TT0 : \forall s \in S^R / [S^R \not\subseteq S^R] \lor (s_0 = s_0)" – making TT0 preemptive, and
- for AD.11 by “if TT0 = user-application then \forall ip-inC = ip else \exists ip-inC = ip” \( [2.c] \).
- ADs’ final sentences serve for naming, just as in LDs, not for their semiotic definitions by mathematical expressions (unlike natural language expressions evidently of unique meaning).
- The semiotic SPL meanings are “ip-inCs” and “tp/ip-inCs”. The Supreme Court termed them “natural phenomenon”/”abstract idea”/”transforming into an application”, i.e. closer to “natural language thinking” than to “mathematical semiotics thinking” here actually at issue – though in vain.

THIS COMPLETES THE SCIENTIFICATION OF SPL PRECEDENTS \( [4.e] \)

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(a) TT0 assumed to have passed the FSTP-Test \( \land \forall s^R \) is an “\( s^R \)-embodiment, TT0^\\( s^R \)’” disclosed by TT0’s specification. Note \( [4.e] \) the importance of this notional restriction imposed on a TT0’s \( S^R \) \( [202] \) will show in detail: It is decisive for all the mathematical definitions provided here – i.e. all pre/post-Mayo/Alice SPL notions – as briefly touched below.\( [4.e] \). This notional restriction causes a first group of subtle intricacies coming along with SPL precedents on ET CIs, hinted at the beginning of Section II \( [202] \).

(b) More precisely: “... with its mirror predicates TS ...”.

(c) as recognized by the “person of ordinary skill and creativity, pose”, whose technical creativity is focused on and limited to FSTP-test1/4/9 – as required by the Supreme Court’s KSR decision.

(d) The mathematical definition of the semiotic meaning of the term “inc” has been provided earlier, just as a TT0’s generative S. Here, instead, the mathematical AD.1 of the semiotic meaning of the term “TT0-realization set, S^R” derived from S is directly taken, i.e. the scope(TT0) – its prefix \( \text{pref} \) or \( \text{pref} \)” denoting S’s definition at the CI priority or a later point in time \( [202] \).

(e) subject to change of its SPL interpretation by the Supreme Court – and trivially to fault fixing, if any should have occurred.
REFERENCES

THE FSTP-PROJECT’S REFERENCE LIST

FSTP = FACTS SCREENING/TRANSFORMING/PRESENTING

VERSION 05.06.2015


[2] AIT, “Advanced Information Tech.”, denotes cutting edge IT areas, e.g. Techs of Artificial Intelligence/ Knowledge Representation/Description Logic/Natural Language& Semantics &Semiotics/System Design/…


[58] SSBG’s Amicus Brief to the Supreme Court as to its (In)Definiteness Quest’s, 03.03.2014.


[69] Transcript of the oral argument in Supreme Court, Alice Corp. v. CLS Bank, 31.03.2014.


www.zeit.de/2013/33/multiple-sklerose-medikament-tecfidera/seite-2


[150] S. Schindler: “Alice-Tests Enable “Quantifying” Their Inventive Concepts and thus Vastly Increase the Robustness” of ET Patents – A Tutorial about this Key to Increasing a Patent’s Robustness – “”, USPTO&GWU, 06.02.2015, also ABSTRACT, see also [175].


[196] See the resp. prominent panel at the IPBCGlobal’2015, San Francisco, 14-16.06.2015.


[201] Conclusions from the discussions during the “Patent Prosecution Session” at the AIPLA 2015 Meeting, LA., 31.04.2015.