

High-Level Tutorial I to Claimed Inventions' post-*Alice* SPL Testing.

S. Schindler,
Technical University of Berlin, TELES Patent Rights International,
www.fstp-project.com

Abstract

This high-level tutorial provides a short but coherent/consistent overview about basic aspects of System Design Technology as inherent to all post-*Mayo* alias post-*Alice* SPL testing of CIs, especially ET CIs*). These aspects make post-*Mayo* SPL testing of CIs far superior to their incomplete and imprecise pre-*Mayo*/classical SPL testing – causing its lack of any scientific/technological support.

It thoroughly clarifies the key “*Alice* terms/notions” recently introduced into SPL precedents by the Supreme Court’s resp. decision. As an example for this clarification, this tutorial takes an representative ET CI, the FSTP-Test, for showing by means of it, what an abstract idea is of this exemplary CI, what its elements and their ordered combination – as of *Alice* – are on what level of notional resolution, why some of these *Alice* elements may not be patent-eligible (as they are building blocks of human ingenuity) but their combined instantiations by the FSTP-Test’s inventive concepts are (as they are data objects representing certain meanings no longer these meanings), thus transforming this CI’s patent-noneligible building block(s) of human ingenuity (having created the abstract idea of “*Alice* decision’s test requirements”) – based on *Alice*’s only partial knowledge representation about a CI – into its(their) patent-eligible application.

But, first of all – as the basis for the painstaking clarifications of the preceding paragraph (requiring a continuation in a second tutorial to this issue) – this high-level tutorial proves that the rationalities in ET CIs’ post-*Mayo* SPL testing and in System Design are identical. It thus establishes the certainty that there is absolutely no risk in changing over, in construing for an ET CI its claim construction, from the classical one to the post-*Mayo/Alice* one – just the advantages mentioned here (and discussed in [121,92,137]).

*) SPL = Substantive Patent Law, ET CI = Emerging Technology Claimed Invention

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I. INTRODUCTION

This high-level tutorial explains ■) why the rationality³⁾ of an ET CI's post-*Mayo/Alice* SPL test¹⁾ is that of an IT system's clean design, and ■) how this common rationality enables clearly defining the terms/notions that the Supreme Court by its *Alice* decision recently introduced into SPL precedents. It starts with outlining what this rationality³⁾ is, of a system design resp. an SPL test, and clarifies by this rationality the *Alice* terms/notions, the main issue of this tutorial.

This rationality³⁾ enables in SPL testing the same enormous advantages as in clean designs of complex IT systems. In the latter case, these enormous advantages are well known since half a century. In SPL testing, they hitherto were unknown but vastly presented in [92]: As increases of the ●) legal quality of a CI and ●) professional efficiency by using a CI's SPL test; their ●) stimulations/inspirations of the legal/technical inventivity around this CI shows [137]²⁾.

The necessity of such “simply structured” thinking in virtually any complex endeavor has not been recognized over the millennia, until a phenomenon occurred, in the early 70s: Most then designed software systems flopped – in total being a multi-billion disaster, called the “software crisis”. Among several others, especially [122,123] clearly recognized its cause: The then common misbelief that a successful endeavor/system design can be performed just intuitively, i.e. without first undergoing the scrutiny of rationality in describing the concerns, the endeavor/system at issue eventually shall care for, and in developing this system's design such that showing this system actually will satisfy these concerns comes down to applying such rational thinking³⁾. Their, by System Design Technology broadly accepted, recognition was: For avoiding with a system design another “software crisis” flop, often first this logically totally clear structure of simple thinking about the system and its design must be developed – rationality³⁾ must be established, up-front, about 1.) the concerns the system must satisfy and about 2.) its design warranting all so derived requirements are met.

¹ Here: SPL = Substantive Patent Law, and ET CI = “Emerging Technology Claimed Invention”.

² This aspect of post-*Mayo* SPL tests would have belonged into [92], too, but could not be included there, due to word count and timing limitation – shortening also this high-level tutorial, due to its deadline on 20.10.2014 [136]. [140,137] will fix this here residual deficit.

³ These advantages are possible only as both areas – system design resp. CIs' SPL testing – are subject to finite first order logic (FFOL), enabling a logically absolutely clear structure of stereotypic/orderly/systematic/straightforward thinking, here called “**rationality**”, excluding “meta-physical” notions' use, i.e. excluding using any notion, an aspect of which is not exactly definable – by today's SPL precedents totally ignored. In Analytic Philosophy [130, 131] this thinking is called: “atomistic thinking / atomism”. Here “elementary inventive concepts” must be atomic notions, often being mathematically definable, also for ET CIs [121³⁾].

By contrast to System Design Technology

- designing an ET CI's SPL test provides the simplification as to 1.) that there is only a single set of concerns this design must meet for all CIs, namely the set of all requirements stated by SPL¹⁾, as interpreted by the Supreme Court^{4.a)},
- but the patent community, influenced by these voices^{4.a)}, nevertheless has not yet recognized the necessity of the 2.) part of the just outlined peer insight from System Design Technology: That the design of this SPL test – due to its actual complexity⁸⁾, and for terminating further flopping of ET CIs' SPL tests – must be designed such that its proof of CI's actual satisfying the SPL (or not) comes down to this rationality³⁾. I.e.: The patent community is still caught in practicing the above outlined misbelief, 40 years ago plaguing Software System Design Technology, within 10 years having matured to IT System Design Technology and to System Design Technology – a blueprint for banning this misbelief.

Replacing this misbelief by rationality³⁾ – only in hindsight a triviality – will warrant the consistency and hence predictability of SPL precedents on ET CIs, too, as it is nothing else but the scientification of SPL precedents, implying the latter's such objectives. These to achieve has been enabled by the Supreme Court's line of *Graham/Markman/KSR/Bilski/Mayo/Myriad/Biosig/Alice* decisions.

In total this tutorial shows, in Section II, the identity of both these rationalities, though in SPL testing having different flavors⁹⁾ from those in System Design. Thereby, it provides a short and incomplete²⁾ but coherent/consistent overview^{4.b)} about basic aspects of System Design Technology [124,125] embodied by the philosophy of post-*Mayo* SPL testing of ET CIs, which make it superior to the incomplete and imprecise philosophy of classic/pre-*Mayo* SPL testing of ET CIs – hence in lack of any such scientific/technological support^{4.c)}. Insofar this tutorial, first of all, establishes certainty that there is absolutely no risk in changing over, in construing for an ET CI its claim construction, from the classical one to the post-*Mayo* one. This overview in particular clarifies – by means of an exemplary ET CI, the FSTP-Test – key terms/notions of *Alice*, e.g. what *Alice*'s elements and their ordered combination are and their relations to *Alice*'s inventive concepts – and on what level of notional resolution, a question often not noticed and then confusing – which being patent-eligible/-noneligible, what CI's abstract idea is, and what transforms it into a patent-eligible application of building blocks of human ingenuity.

⁴ .a) Since its *Mayo* decision this set of SPL requirement statements implies refining the classical claim construction for the CI to be SPL tested, as confirmed by its *Alice* decisions (see ii)). Nevertheless, these 3 decisions of the Supreme Court, *Mayo/Biosig/Alice*, are massively attacked by politically powerful – as of high public profile – voices [92^{S.III}, 113^{Prolog}, 121^{S.VII}].

.b) Such a coherent/consistent view has hitherto not been available, as its various aspects were scattered on several and also very early FSTP papers. While most of these much earlier discussed aspects is repeated – and complemented – here, i.e. in i)-iii), several Sects/ftns/... of the more recent presentations are simply referred to by [Ref^{S/ftn/...}], e.g. [92^{3.a}]. [121^{7.a}],

.c) The ordinary member of the patent community would not need to know about such subtleties of post-*Mayo* SPL testing – but take these advantages as granted and practically use them.

II. THE RATIONALITY³⁾ OF A CI's post-ALICE SPL-TEST

The inventivity stimulations/inspirations²⁾ as to a CI, inherent to its post-*Mayo* SPL test^{5.a)} alias SPL^{Alice} test alias FSTP-Test, is not evident. For grasping it, in [137], here first certainty is established that the FSTP-Test – modeling any SPL test [927.a)] – represents/has the rationality of a clean system design^{5.b)} (see Section I). Hence, the FSTP-Test is considered as realizing the maximal transparency of the total CI knowledge (including all its potentially several interpretations) used and usable in a CI's SPL test – the maximal transparency on basis of a “knowledge representation, KR” about the CI close to that inherent to SPL.

This FSTP-Test's KR – of all information about a CI, the 3 decisions and SPL require to be derived from CI's specification and managed as defined by them – thus provides the least unnecessarily limited insight into how to overcome by this “SPL rationality”³⁾ the evident limits of reliable human thinking, when it comes to evaluating all legal and technical interrelations existing for the inventive concepts embodies by an ET CI and to identifying options of altering both – e.g. for creating another “near by” ET CI. This is elaborated on in [137,140].

For proving that e.g. \forall KR^{Alice} are abstract ideas only of the FSTP-Test – i.e. *Mayo/Biosig/Alice* are abstract ideas of the FSTP-Test^{5.b)} – here being a “special insight” gained when analyzing the above much broader phenomenon, Subsection

- i) outlines the 4 basic structuring principles of System Design applied to the *Alice* decision, showing why they in total are an abstract idea only of an SPL^{Alice} test [121^{S.III}]. *Alice's* elements and their ordered combination only make this idea less abstract (than that of \forall KR^{Mayo} \forall CIs), but not yet being an invention of an SPL^{Alice} test, just its abstract specification. For its implementation, i.e. the “application of CI's building blocks of human ingenuity, comprised by these elements and their ordered combination”, *Mayo/Alice* embody no patent-eligible (“additional”) inventive concepts – while the FSTP-Test does.
- ii) discusses “inventive concepts” in their relation to CIs' patent-(non)eligibility.

For an “only SPL background” reader: i)/ii) use solely broadly known terms/notions from System Design^{6.a)} and their *KSR/Mayo/Biosig/Alice* aliases^{6.b)} – he/she would intuitively grasp, even when skipping the backward references [...] therein, as their presentations are often really tutorial (not meaning: next-to-trivial).

⁵ .a) – definitively making obsolete any SPL testing based on the classical claim interpretation as it contradicts the Constitution, by the Supreme Court's *Biosig* decision [121^{S.III}] –

.b) By *Alice's* requirement statements as to SPL testing, the Supreme Court not only explicitly confirmed its *Mayo* decision's implicit ones, but it also thereby evidently refined them – and thereby proceeded as taught by System Design Technique [122,123], i.e. applied the System Design structuring principles to structuring any ET CIs' SPL test.

⁶ .a) Thereby, he/she may easily grasp the meanings of IT terms/notions intuitively by just checking, where they appear in the FSTP-Test⁸⁾, thus familiarizing with it – and recognizing where it must be left “open” due to lack of pertinent SPL precedents [921⁹].

.b) Any element in a “computer implemented invention” [45] alias IT system may be an inventive concept. I.e., by *Mayo/Alice*, any IT system is patent-eligible and patentable, provided it passes the FSTP-Test. This implies questions, SPL precedents has not yet recognized.

As to i): The 4 Basic Structuring Principles of System Design – Applied to Structuring an SPL Test Design as Required by *Alice*.

These 4 (highlighted) structuring principles – *Mayo/Alice* require to be used for structuring a CIs’ SPL tests and here presented in *Alice* terms/notions – are:

- a) “**separation of concerns**” of SPL, i.e. the logical conjunction of the so separated concerns is to be satisfied by an abstract CI, as only eventually to be tested.
- b) “**separation of modules/processes**” being this CI’s abstract “elements” and an “ordered combination of them” to be separated – comprising building blocks of human ingenuity and/or patent-eligible inventive concepts – the logical conjunction of which is to satisfy that of the in a) separated SPL concerns
- y) “**reduction of the level of abstraction**” of the b) combination of abstract elements. Here *Alice* is mute – while by the FSTP-Test y) transforms therein the abstract a)/b) items into their application. Its inventive concepts are data object realizations of a)/b)’s wishes: elements by BED-inCs, their combinations by BAD-inCs.
- δ) “**well-definedness establishment**”. Here, too, *Alice* is mute, while the FSTP-Test decides CI’s not being indefinite, an abstract idea, or a natural phenomenon⁷⁾.

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- 7) The FSTN-Test⁸⁾ scheme [92¹⁹⁾], quoted from [121^{8,b)},92⁸⁾], identifies by “<...>” “lacking precedents” and changes probably resulting from them in the future – as its systematically/mathematically correct limitations took on safest positions, hence likely too tight practically.
- 8) The FSTP-Test is the conjunction of its FSTP-test.o, $1 \leq o \leq 10$, abbr. below by 1)-10):
- 1) The FSTP-Test prompts the user to input <no “**multi-interpretable CI**” until [137]>
 - (a) $\forall TT.i \wedge 0 \leq i \leq I = |RS| \wedge 1 \leq n \leq N = N(TT.0) : \text{the pair } (X_{in}, \text{BAD-crC}_{in}) :$
 - (b) $\forall 1 \leq n \leq N \text{ justof: } (X_{0n}, \text{BAD-crC}_{0n}) \text{ is } \underline{\text{definite}};$
 - (c) $S ::= \{\text{BED-crC}_{0nk} \mid 1 \leq k \leq K^n, 1 \leq n \leq N\};$
 $\text{BAD-crC}_{0n} = \bigwedge_{1 \leq k \leq K^n} \text{BED-crC}_{0nk} \wedge K ::= \sum_{1 \leq n \leq N} K^n;$
 - (d) $\forall 1 \leq k \leq K^n \wedge 1 \leq n \leq N \text{ justof: } \text{BED-crC}_{0nk} \text{ is } \underline{\text{definite}};$
 - 2) $\wedge \forall \epsilon \in S \text{ for justof: their } \underline{\text{lawful disclosure}};$
 - 3) $\wedge \forall \epsilon \in S \text{ for justof: their } \underline{\text{definiteness}} \text{ under } \S 112.6;$
 - 4) $\wedge \forall \epsilon \in S \text{ for justof: their } \underline{\text{joint enablement of TT.0}};$
 - 5) $\wedge \forall \epsilon \in S \text{ for justof: their } \underline{\text{joint independence}};$
 - 6) $\wedge \forall \epsilon \in S \text{ for justof: their } \underline{\text{joint KSR/posc-nonequivalence}} \wedge \text{define the BED*-AN matrix by}$

$$\text{BED}^* \text{-inC}_{ik} ::= N \quad \forall 1 \leq k \leq K^n \wedge 0 \leq i \leq I;$$

$$\text{BED}^* \text{-inC}_{0k} ::= A \quad \text{if } \text{BED-inC}_{0k} \in \text{KSR posc};$$

$$\text{BED}^* \text{-inC}_{ik} ::= A \quad \text{BED-inC}_{ik} = \text{KSR BED-inC}_{0k}, 1 \leq i \leq I;$$
 - 7) $\wedge \text{for justof: by NAIIO}^*) S \text{ is } \underline{\text{not an abstract idea only}};$ <see [140]>
 - 8) $\wedge \text{for justof: } S \underline{\text{contains a patent-eligible BED-crC}_{0nk}};$ <see [140]>
 - 9) $\wedge \text{for justof: } S \underline{\text{is a patent-eligible combination}};$ <see [140]>
 - 10) $\wedge \text{for justof: by NANO}^{**}) S \text{ is } \underline{\text{patentable}} \text{ on } S^{\text{pat-el}} \subseteq S.$ <see [140]>
- *) The “**Not Abstract Idea Only, NAIIO**” test prompts the user
- 1) for input&justof: the CI specification discloses a problem, P, to be solved by TT.0 of CI;
 - 2) for input&justof: S alias TT.0 solves P;
 - 3) for input&justof: P is not solved, if in S a BED-inC_{0k} is relaxed (i.e. the truth set of a BED-inC_{0k} is enlarged);
- If 1)-3) apply, then <CI,S> is “not an abstract idea only”.
- **) The “**Not Anticipated And Not Obvious, NANO**” test checks of RS all its “anticipation combinations, ACs” as to S [5,6]:
- 1) It starts from the “anticipation/non-anticipation, AN” matrix of FSTP-test.6, any one of the I+1 lines of which shows, by its K column entries, for $i = 1, 2, \dots, I$, which of the peer TT.0 entries is anticipated/non-anticipated by a former one, and for $i=0$ is anticipated/non-anticipated by posc.
 - 2) It automatically derives from the AN matrix the set of all {AC} with the minimal number, Q^{plcs} , of “N” entries.

This shows: A CI's post-*Mayo/Alice* SPL test – i.e. an interpretation of the FSTP-Test [927.a)] – is rational, i.e. has a logically totally clear structure of stereotypic/orderly/systematic/straightforward thinking. It nevertheless may be felt as being so complex, though only at least at the first glance at it, that one may wonder whether the FSTP-Test really is structured by these 4 basic structuring principles of System Design – as this ought to achieve the best existing transparency of the KR of exactly all information for a CI's SPL test.

Based on α)- δ), the paragraphs α)- δ) show this is indeed true.

- α) The System Design principle “**separation of [SPL] concerns**” separates testing the 10 plcs/pmgp⁹⁾ concerns represented by 35 U.S.C. §§ 101/102/103/112 as interpreted by the 3 decisions of the Supreme Court. This separation is achieved, in the FSTP-Test, by having anyone of its 10 test.o, $1 \leq o \leq 10$, check one of these 10 concerns for being satisfied by CI, i.e. satisfied by the resp. Generative Set S of creative/inventive concepts allegedly making-up this CI. Thus:
- test.1 checks the definitiveness of $\forall \text{BAD-inCs}$ and $\forall \text{BED-inCs}$ ¹⁰⁾
 - test.2 checks whether $\forall \epsilon \in S$ have the property 2),
 - test.3 checks whether $\forall \epsilon \in S$ have the property 3),
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 - test.7 checks whether S has the property 7).
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 - test.10 checks whether $S^{\text{pat-el}}$ has the property 10).
- β)/ γ) The System Design principles “**separation of modules/processes**”¹¹⁾ and “**reduction of the level of abstraction**” have been described already, as to both their main functionalities, under \mathbf{i}) in the introduction to Section II and under β)/ γ . In addition, the structuring principle β) implies, in the FSTP-Test, separating the $|\{\text{TT.0}\}|$ interpretations/TT.0s/Ses of CI.

⁹ see [1218.b)]

¹⁰ In detail, test.1 checks, whether holds

- $\forall 1 \leq n \leq N$ justof: **BAD-crC0n** is **definite** \wedge
- $\forall \text{BAD-crC0n}$ holds the relation **1)(c)** (input by the user for use in γ) \wedge
- $\forall 1 \leq k \leq K \wedge 1 \leq n \leq N$ justof: **BED-crC0nk** is **definite**,

whereby the fact that this disaggregation indeed represents the principle γ) is due to a short cut taken by the FSTP-Test. Without it, i.e. when preserving the separation of the principles α)- γ), the FSTP-Test would first process all N BAD-crCs, then trivially consider them separated, and then – in executing γ) – had to jump K times back to α) (not meaning α)/ γ) were inseparable).

¹¹ The notion of “separation” of in some kind alike issues in a CI's KR – needed for its refined claim construction – does not imply that any SPL test would enable testing one of the items, its FSTP-Test deals with, may reasonably be tested separately, i.e. without checking all the other such items, too. The contrary holds: Any such hypothetical (i.e. non-all-KR-embracing) test of such an item is incapable of any generally dependable statement about it.

- 8') The System Design principle of “**well-definedness establishment**”¹²⁾ is assessed by the FSTP-Test testing as to all the items it deals with. It implicitly applies to all user (decisions) input in any one of the 10 FSTP-test.o, as explained in detail in [58], explicitly is shown twice in test.1, and as to CI's abstract idea and natural phenomenon embodiments it is encapsulated into the separate test.7 and test.9 – more transparency is not achievable by a CI's SPL test.

From the common assumption about the ultimate structuring potential of the basic System Design structuring principles **α)-δ)** therefore follows: No better transparency exists for the KR of the FSTP-Test, if all relations of the items it deals with are taken into account, which the Supreme Court's 3 decisions require, and if technology area independency of its KR and its CI uniformity shall be preserved – what the FSTP-Test does achieve.

As to ii): Inventive Concepts and Their Patent-(Non)Eligibility

Up-front three remarks having little to do with patent-(non)eligibility:

- The mathematical definition of the notion “inventive concept”, discussed in detail in [5-7], is a simplification of the powerful notion of "concept" in DL/KR [2-4]. The former is customized for modeling Highest Courts' SPL precedents, nothing else, while the DL/KR notion of “concept” serves for general purpose recursive modeling compound concepts by means of simpler ones.

By contrast to DL/KR, SPL precedents proceeds the opposite way for achieving these *Mayo/Alice* elements [121¹⁾²⁾] of a CI are disclosed, definite, useful, independent, KSR/posc-nonequivalent⁸⁾ – logically impossible with compound inventive concepts, by SPL precedents today not yet really noticed [92¹⁹⁾].

- The *Mayo/Biosig/Alice* framework is, as to ET CIs needs, logically complete – unlike the classical claim construction [64,74,90, 91] – and it requires that several of its key notions are scalable [5-7,95]. By using Kant/Russell/Wittgenstein-like thinking [7^{**)-4)}], the German BGH *Demonstrationsschrank* decision¹³⁾ (an obviousness case), and the US Supreme Court's *KSR/Bilski/Mayo* decisions, lead to defining by the author a rational³⁾ metric (based on 0 and the natural numbers [5]) on “inventivity” – for measuring a CI's semantic and also

¹²⁾ This quite fundamental principle – representing an inherent, non-functional requirement/concern of most complex systems – is often overlooked or taken too easy in IT system design, potentially having disastrous consequences, as reported e.g. by [122] on security issues with an A weapon release push-button in a military aircraft many years ago, or repeatedly with resilience issues of nuclear power plant systems.

Also in SPL precedents, a CI's well-definedness – CI's property not to be indefinite, an abstract idea, or a natural phenomenon – has long time not been noticed as a property, the absence of which is lethal for its protection by SPL. CI's “indefiniteness” was longtime just feared [61], and its being an abstract idea only or representing a natural phenomenon (almost) completely unknown pre-*Bilski/Mayo*. By now, this problem is theoretically/mathematically clarified in [58] – except that further SPL precedents is needed for getting it complete [92¹⁹⁾].

its pragmatic “height over” alias “distance from” posc and a “prior art reference set, RS”, also applicable for measuring the amount of patent-eligible inventivity the CI embodies [18,19]. It determines and counts the number of “independent thoughts” necessarily to be created by the inventor for finding the CI, mathematically definable/describable¹³, fitting into the *Mayo* framework, by the number of relevant binary elementary disclosed (“BED”) crCs resp. inCs⁸) [6,7].

- This just mentioned rational³) cognition of separable independent thoughts increases the scientability of SPL precedents, as it enables replacing indefinite terms, e.g. “enough” or “obvious”, by numbers – as any metric does, here in indicating a CI’s patent-eligibility [18,19] and patentability⁸). Thus, for a CI’s TT.0 – defined over posc and a RS by a “generative set, GS” of inCs (in the FSTP-Test⁸) abbreviated by S) – any court could decide objectively, based on this unquestionable quantification by this metric based on BED-inCs¹⁴).

E.g.: Using this “independent thought” thinking¹⁶), the Highest Courts could provide a guideline, by deciding e.g.: A TT.0 normally is to be seen as **a) not an abstract idea, b) patent-eligible, and c) patentable** iff of S holds **a) the whole S passes FSTP-test.1-7, b) $2 \in S$ are patent-eligible, and c) if (TT.0’s is challenged as being non-novel) then $S \neq \Phi$ else $|S| \geq 2$ ¹⁴).**

Now basic remarks, which have to do with a TT.0’s patent-(non)eligibility:

- *Alice* also confirms *Mayo/Bilski* as to the 3 disjoint “categories” of patent-noneligibility of a CI’s TT0: the “indefinite” category, the “abstract idea”/“preemptive” category, and the “natural phenomenon” category – whereby this TT.0 may be of any one of these categories caused by a BED-inC in TT.0’s S. But evidently a TT0 may also be of one of the first two categories although none of its BED-inC in TT.0’s S belong to this category. And both may apply to a TT0, too, and this even for more than 1 category.
- Just as in *Alice*, here is skipped, what the “contours” of the concepts of these three categories are [74,91].
- A TT.0 patent-noneligible does not render a CI patent-noneligible iff CI comprises a patent-eligible TT.0 [58].
- A TT.0’s generative set $\text{GS}(\text{TT.0})$ [58] may comprise a patent-noneligible inC. Thereby an $\text{inC} \in \text{GS}(\text{TT.0})$ is always recognizable, if it is of the category “indefinite” or “natural phenomenon”, while this need not hold for the third one (e.g. as not defined). I.e., here only “natural phenomenon” category inCs make sense.
- If a patent-noneligible inCs $\in \text{GS}(\text{TT.0})$ is of the “natural phenomenon” category, then it need not render TT.0 patent-noneligible, otherwise it does.

¹³ Practiced in variations for several years in several cases under the preceding Chief Judge of the X. Senat of the BGH, but under its current Chief Judge evidently ignored – without notice.

In these German decisions nonobviousness always has been stated for $|S| \geq 2$. The development of physics indicates: The scientification of SPL precedents will take this way, too.

¹⁴ Note that the FSTP-Test by test.1, test.2, test.5, and test.6 internally verifies, whether the application of this – independent thoughts based – metric is rationally³) justified.

- Vice versa: The patent-eligibility of TT.0 excludes that an ϵ GS(TT.0) is of category “indefinite” or “abstract idea”.
- TT.0 may be indefinite or preemptive although none of the ϵ GS(TT.0) has this property, while this does not hold for the ‘natural phenomenon’ category.

A few final remarks are in place, which draw important conclusions from the preceding elaborations:

- The Supreme Court’s *Mayo/Alice* decisions comprise, as to any single SPL test, requirement statements all CIs got to meet (for being protected by SPL) – in addition to those stated by SPL explicitly – hence also as to the “scheme of FSTP-Tests” [927.a)]. This scheme completely exhausts by all its interpretations the set of all SPL tests (as shown in [121s.ⅢⅢⅢ]).
- Any CI and its specification comprise, as to any single one of its inventions, requirement statements all inventions got to meet (for being protected by SPL) – in addition to those stated by SPL explicitly – hence also as to the “scheme of CI inventions”. This scheme completely exhausts by all its interpretations the set of all CI inventions (as the Supreme Court’s *Biosig* decision determines).
- While, in both these preceding cases, these requirement statements are abstract ideas of the FSTP-Test scheme resp. of the CI invention scheme and hence are not patent-eligible, both schemes themselves are not abstract ideas, but the resp. sets of all FSTP-Tests and all CI inventions. The reason being that SPL does not protect claims’ requirement statements but claims’ scopes defined by CIs, the inventions of which meet these requirements. I.e.: SPL does not apply on the high level of notional abstraction, on which requirements are located, but on the (often much) lower level of notional abstraction, on which the inventions meeting these requirements are located.
- This is good news for all inventors suffering from the wave of excitement currently raging through the PTO, to reject many ET CIs as allegedly being abstract ideas: The true causes of such rejections may well be the unavoidable problems the examiners would encounter initially (unless unusually gifted or appropriately trained), when starting taking *KSR/Bilski/Mayo/Myriad/Biosig/Alice* serious – due to the need then to distinguish between these levels of notional resolution in examining an ET patent/application. Such causes ought to be fixable. It is unlikely that the Congress – and only then the Supreme Court – will prefer the alternative and limit SPL to MoT technologies (though backbenchers will keep trying, erroneously assuming this would suffice).
- Finally: The elaborations in this high-level tutorial outlined *Alice*’s “contour” of the noneligibility category “abstract idea”. They do not apply to the category “natural phenomenon”, the contour of which seems to be harder to determine with a similar broad range of preciseness⁷⁾ as for the former category – though some more insights seem to be achievable, also here, than available today.

Reference List (V_18.10.2014)

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