The Supreme Court's Guidance to Robust Patents on ET CIs

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I. ON INCREASING THE ROBUSTNESS OF PATENTs ON ET CIs

The Supreme Court's groundbreaking *KSR/Bilski/Mayo/Myriad/Biosig/Alice* decisions introduced into **SPL[1)] precedents** fundamental notions indispensable for therein establishing, also for "**ET CIs**"[1)], consistency and predictability. It thus induced creating the FSTP project for developing "Patent Technology", which achieves for ET CIs an "SPL transparency" hitherto impossible, as it vastly reduces their known obviousness/non-patenteligibility/indefiniteness obscurities, thus greatly facilitating ET CIs' tests for their satisfying SPL. Especially its "FSTP-Test"[1)] is indispensable for developing ET CIs [137] and drafting their specifications such that they are protected by absolutely robust patents, which enables designing an "Innovation Expert System, IES" of initially unexpected capabilities [7,59,152].

For facilitating an understanding of this dramatic progress in SPL precedents for ET CIs – hence of developing and drafting legally invulnerable patents on ET CIs – in-depth tutorials [136,150,151,155] open an access to this innovative thinking about SPL precedents, based on its scientification[2.a)]. This paper supports these tutorials by explaining – by the 2 here key Supreme Court decisions (*Alice & Biosig*), 6 topical CAFC decisions/hearings dealing with ET CIs (*Interval & Biosig & DDR & Ultramercial* & *Myriad* & the author's *'902/'453* case), and the new PTO guideline – that/why
● any one of their 6+ patents would (probably) have survived unquestioned – at the CAFC and/or PTO – if its ET CI would have undergone the FSTP-Test, potentially improved appropriately, and its outcome been disclosed by its specification[2.b)], whereby
● the 6 CAFC panels dealing with them, if proceeding in their 6+ specific ET CIs tests as required by these two Supreme Court decisions, indeed have (at least partially)
1.) overcome the CAFC's former SPL difficulties as to ET CIs (identified below) – by the FSTP-Test today unquestionably[2.a)] identi-/specifiable – and moreover clearly
2.) proven that these Supreme Court decisions provide practically excellent guidance.

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1 "SPL" = Substantive Patent Law, "E/CT CI" = Emerging/Classic Technology Claim(ed Invention). "FSTP" = Facts Screening/Transforming/Presenting. "posc" stands, by *KSR*, for "pertinent ordinary skill and creativity" – leaving away the often leading but notionally outdated term "person of". That the "FSTP-Test", as to any given (ET) CI, embodies all minimal but complete necessary and sufficient SPL satisfiable tests by it – provided its user's input is correct (to be confirmed by the posc) – is here not repeated for the n^{th} time, $n \geq 5$. In spite of that, this paper is still very redundant as to several earlier FSTP publications – though it tries to avoid such redundancies. "Reference List items" may identify S./p./ftn./..., e.g. [121[S.II/III]], [92[8)]]. ....

2 **.a)** This "scientification of SPL precedents" [7[*)p.32-34]] indeed establishes the fundament of patent technology developed by the FSTP project. It is fully Mathematics/AIT based [2] – guaranteeing its well-definedness – and enables supporting IPR business by FSTP Technology, just as MRT Technology supports brain surgery, or differential equation systems since centuries support Architecture.

In SPL precedents, currently the same happens. Those parts of the patent community dealing with CT CIs can get along for years with their today SPL understanding. Also when dealing with ET CIs, ordinary IPR practitioners would use FSTP Technology without caring for its scientification, though they currently are familiarized with the practically indispensable refinement of the Supreme Court's *Mayo/Biosig/Alice* terms/notions used in this paper and making-up FSTP Technology, sufficing for using the IES. By contrast, truly top patent lawyers will acquire also some of the scientific fundament of FSTP/Patent Technology. **.b)** until 2012 unfortunately impossible, as only thereafter FSTP Technology came into existence

II. THE *Alice/Biosig* GUIDANCE TO ROBUST PATENTs ON ET CIs

Alice expands *Mayo*'s description of an ET CI for its patent-eligibility testing by basic *Mayo* application rules. The Supreme Court thus clearly states its requirement to apply *Alice*'s "two step test"[3.a)] for determining an ET CI's (non)patent-eligibility.

Biosig equally clearly states that the Supreme Court requires to apply *Biosig*'s "definiteness test"[3.a)] for determining an ET CI's (in)definiteness.

The Supreme Court's evident objective thereby is to enable all courts to make their patent-eligibility and definiteness decisions congruent to these two decisions and to refining them [121[7.a)]]: Not just by courts' and patent lawyers' lip-services, but such as to foster especially the R&D and PTO communities unfolding ETs' potentials.

The author is convinced: For rapidly achieving this objective with all of them, the messages conveyed to them by these two decisions, must be broken down into an unquestionable and hence scientific[2)] systematic. That the guidance to this end, provided by these two Supreme Court decisions indeed is ideal – and technically viable[2)] – will become broadly acknowledged by academia, eventually [113,146].

Section III shows that there may be a short cut to this end, as there is a trend in the 5 above ET CI cases run by the 5 CAFC panels, comprising 8 CAFC Judges. For evaluating this expectation, the author's perception of both above Supreme Court decisions is required. As to *Biosig*, his perception is provided as part of the comment on the CAFC's *Interval* & *DDR* decisions in Subsection III.1, while the following 2 paragraphs provide his *Alice* interpretation, completed in Subsection III.2, when again commenting on *DDR* – in both cases repeating their earlier explanations in [150,151].

As to the *Alice* patent**,** the Supreme Court criticizes that nothing new and useful is specified for this ET CI's claim terms (1)-(4) (opinion on p.14-15), separately or as a whole – just their a priori known functions. I.e., the patent fails to specify, how providing these functions in a distributed, open, convenient transaction settling system solves its concurrency/deadlock/confidentiality problems such that the ET CI is robust/trustworthy/resilient/…, hence **new and useful**. Indeed, in its specification such disclosures are lacking – ignoring these two § 101 requirements and assuming clearly describing the ET CI's general working were enough. It is not! This patent nowhere specifies new usefulness embodied by this ET CI, i.e. its inventive concept transforming its building blocks of human ingenuity (as to transaction settling) into their patent-eligible application, which is more than just these known such building blocks.

Thus, the Supreme Court's *Alice* decision doesn't threaten patents on Software or other ETs' CIs. It just requires from them to expose their patent-eligibility by their ET CIs' inventive concepts, by *Alice* testing[3.a)] [150]. Otherwise ET CIs were patented without completely understanding the being of their new usefulness, driving ET CIs' SPL precedents into inconsistency, and SPL into ruin. I.e.: *Alice* guides to robustness of patents as to their patent-eligibility – just as *Biosig* does as to their definiteness.

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[3] **.a)** Achieving this tests applicability, i.e. make it operational, explained the in-depth tutorials [150,151].
.b) In *Biosig* its test is called "standard" – both terms having the same meaning [155] – and these synonyms are often used also in discussions of other SPL issues.

III. THIS SUPREME COURT GUIDANCE USE BY 6 CAFC PANELS

This Section III comprises 4 subsections, commenting on 6+ decisions and a hearing by 6 CAFC panels. Subsections III.1-3 all deal with these 6 CAFC panels' use of the Supreme Court's guidance in determining for 6+ patents and their ET CIs their (in)definiteness, patent-(in)eligibility, and claim construction. III.4 – with aftermath as to CAFC's and PTO's decision making – is now empty as going into[160].

As to the use of this Supreme Court guidance by these 6 CAFC panels, these 3 subsections show that recently a clear trend evolves: While in the first half of 2014 no impact of this guidance on the CAFC's SPL precedents was observable – see III.3 – the recent CAFC indefiniteness and patent-eligibility decisions by 5 different panels show that this Supreme Court's guidance has exerted fundamental impacts on them. These impacts ought to be sustainable – but this is not quite clear, yet [92].

These impacts made the CAFC for ET CIs ●ending their established but untenable claim interpretation, ●starting with applying more scrutiny in their claim constructions, and – as part of this increased scrutiny – ●focusing on their inventive concepts[4.a)]. I.e., CAFC panels made a huge step forward, towards reconciling CAFC's SPL precedents on ET CIs with that required by the Supreme Court.

Yet, all these CAFC decisions still suffer from the CAFC not yet having further developed this Supreme Court guidance as indispensably needed for its broad practical use – also in pre-court situations, e.g. examinations. In particular, they show partial misunderstandings of this Supreme Court guidance, avoidable uncertainties, much incompleteness. This is explained by the comments on them in III.1/2.

These current deficiencies are indicated here already, before below pretending to go already into precise detail – which must create confusion. The truth namely is: The below presentations are vastly located solely on the level of notional resolution, on which *Mayo/Biosig/Alice* and their "**compound notions**" (especially: "**compound**" inventive concepts) also are located. Hence, details of ET CIs simply are often not precisely describable – namely if their features are not clearly separable from each other. In System Design Technique this awkward phenomenon – well known since the early 70s – is eliminated by "separation of concerns", first, before a clearly structured design can be found, i.e. not being intolerably error prone [136,155,150,151]. This means that often the increased scrutiny, required when dealing with ET CIs, often simply is impossible, on this level of notional resolution[4.b)]. On this level, too, arguing is evidently possible – by also using hand-waving and alike, often much worse than just error prone – but no errors free reasoning. Hence the indispensability of a "refined level of notional resolution" for such ET CIs: Logically there is no way around.

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[4] **.a)** Hitherto the notion "inventive concept" had been completely ignored by the CAFC, in spite of logically being evident that "precisely thinking about resp. description of an invention without using the notion 'inventive concept'" (or a synonym thereto) is a clean antagonism per se.

.b) This is the BOD resp. BAD level of notional resolution, while logically clean arguing is often possible only on their refinement to the BED level of notional resolution – as explained e.g. in [150,151].

.c) *Alice* distinguishes – for the constituents/components of an ET CI's inventive concept – between elements, building blocks, …, while they here are simply called inventive concepts, too. For not changing the *Alice* framework by this simplification, here inventive concepts represent also constituents/elements/components of the total inventive concept of an ET CI, being patent-eligible or not [150,121,92], the patent-ineligible ones (abstract ideas, …) representing the patent-ineligible building blocks of human ingenuity.

III.1 The CAFC and Determining an ET CI's (In)Definiteness by the *Biosig* test

This subsection starts with commenting on the CAFC's *Interval* decision [154], then continues with its *Biosig* hearing – briefly, as there is no decision, yet – terminating with commenting on the definiteness part of the CAFC's *DDR* decision [156].

III.1.1 In the ***Interval*** opinion its ET CIs' (in)definiteness is analyzed by a first CAFC panel, thereby proceeding partially well substantiated as the Supreme Court's *Biosig* decision requires. It indeed provides thoughtful elaborations on two groundbreaking requirements stated in *Biosig* by the Supreme Court, both providing necessary prerequisites for a logically tenable clarification of an ET CI's (in)definiteness – thus potentially taking the CAFC two huge steps forward to consolidating its relation to the Supreme Court. But it then stumbles – non-determinative for the *Interval* decision – over a third and central issue: To finally determine this ET CI's (in)definiteness[5.a)]. It also misses a fourth aspect, important for removing uncertainties as to ET CIs' definiteness. These 4 aspects of this CAFC decision are now commented on.

Firstly: The all overarching message conveyed by this *Interval* decision is that the CAFC finally confirms that a CI's (in)definiteness test must start with its claim construction – just as the Supreme Court did in *Mayo/Alice* (without explicitly pointing out that it did what it evidently did). I.e.: The CAFC now confirms – here even ex-

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5 **.a)** The *Interval* decision is mute as to a fundamental aspect of the indefiniteness question – May an ET CI have different interpretations? – raised explicitly by several Amicus Briefs to the Supreme Court and implicitly by its criticism of the CAFC's "insoluble ambiguous" test resp. by its replacing the latter by its "*Biosig* test". Nevertheless it is not addressed at all by the CAFC, although it is totally controversial.

I.e., the CAFC's *Interval* decision up-front assumes that a claim must have only a single interpretation[5.c)] for the claim being definite, yet without explaining why this assumption should be tenable. Neither the SPL, nor any SPL precedents, nor AIT, in particular not the Supreme Court's *Biosig* decision, has ever postulated that a CI's scope is not uniquely defined – then this CI were indefinite, by *Biosig* – if this CI has several different interpretations (as [58] clearly shows). Thus, while this assumption about SPL is evidently simplifying a CI's (in)definiteness question, it is untenable – as contradicting 35 USC §101.

And the same applies as to a claim's terms: There may be claim terms not having only a single meaning[6.a)]. In any layered system design, some instructions of layer N (instructions of a processor executing the 'programs' on layer N) usually are data as seen from layer M>N, i.e. for a processor executing the 'programs' on layer M. No confusion can occur as long as a patent's specification establishes clarity (for the posc), what establishes the interpretation basis of the occurrence of any of its terms "instruction" or "data".

The *Interval* decision as to this aspect – here denoted as "**the CI enables different interpretations**" – seems to have misunderstood, what the specification tells the posc in System Design Technique [155]. But this here is immaterial, as result-determinative are only the undecidable claim terms quoted in its ftn[3)].

.b) What must be excluded, for preserving the definiteness of a CI, is not that it has several interpretations, but that its set of one or several interpretations is undecidable[5.c)] [121[5.d)],155]! This is the *Biosig* "standard's"/"test's"[3.b)]criterion of a CI's definiteness – the principally only "reasonable certain" criterion[4.b)].

.c) Since Turing this means: "Of one such interpretation it is not determinable whether it belongs to this set or not" Note: Most CIs of patents granted have different interpretations – e.g. all CIs enabling different implementations disclosed – as any such implementation is a CI interpretation. No such CI needs to be without "reasonable certainty" about its scope, i.e. undecidable, as this scope is uniquely determinable[7.d)].

"(Un)Decidability" of a whatsoever (e.g. CI, sentence, term, set, …) is a logical category, not a linguistic one. A CI with an (un)decidable set of interpretations (= scope [58]) is (in)definite, as defined by the Supreme Court's *Biosig* decision. The (in)definiteness/(un)decidability of a CI is an invariant over the set of all "context free" languages describing this CI and its interpretation system – which evidently does not hold for the set of all "context sensitive" languages, comprising all natural languages. But, any natural language can easily be stripped down (notionally and grammatically) to a (not uniquely determinable) subset being a context free language [28,155], often practiced in patents without being aware of it.

I.e., "reasonable certainty" is just another term for "decidability". The "reasonable certainty" phenomenon the *Biosig* decision addresses makes aware of the "undecidability booby trap" existing for ET CIs.

.d) The same holds for a CI's patent-eligibility and/or obviousness test, as known from the FSTP-Test[1)].

plicitly pointing out that it does what it evidently does – that there is no orderly (in)-definiteness test[5.d)] without first performing an orderly claim construction (see III.3).

Logically this is trivially true. Nevertheless has the CAFC in the past repeatedly repudiated this trivial truth, as criticized already in [92,121] (see III.3).

Secondly: The CAFC now also clearly follows the Supreme Court's statement in its *Biosig* decision that a court is not entitled to assign an interpretation to a claim, in particular not the "broadest reasonable interpretation, BRI^{pto}", which the Supreme Court's *Biosig* opinion explicitly qualifies (p. 12, l. 1-5) as inapplicable for claim interpretation. The CAFC thus ends the use of the BRI^{pto}, having been permanent with the PTO and frequent with the CAFC (even against its own *Philips* precedents, III.3).

Though absolutely unmistakable, the resp. reasoning in the *Interval* decision yet is covered: The CAFC hereby namely kills the favorite of the intellectually less interested patent users, i.e. their as convenient as nonsensical legal instrument [121].

Thirdly: Besides these two preceding CAFC clean-up actions concerning prerequisites of a CI's (in)definiteness determination – of much broader scope than just the (in)definiteness issue as such – the *Interval* decision alleges the genuine (in)definiteness determination for a CI were decidable by any one of two different criteria, by:

- The CI enables several interpretations[5.a)]. This alleged criterion is shown[5.b)/c)] to be legally erroneous. Hence its use in the *Interval* decision needs no further comment.
- The CI is described by a term with an undecidable meaning[6.a)]. The *Interval* decision quotes the term(s) "*unobtrusive manner*" (and "*does not distract a user*") and substantiates why from in- and/or extrinsic sources cannot be derived reasonable certainty[5.c)] about it(them), i.e. that its(their) meaning(s) is(are) decidable[5.c)/.d)6.b)].

Fourthly: Not identifying the ET CI's inventive concept required by *Mayo/Alice*, disables becoming that precise about this ET CI indefiniteness, as ftn[6.c)] shows.

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6 **.a)** Again [5)]: A term with a finite number of definite meanings is not indefinite, but leads – when used in a context-free language[5.c)] of a CI's wording – to the same number of interpretations of this CI, also holding if it has an infinite number of definite meanings and the definition of this set comprises no ∀ or ∃ quantor.

.b) In terms of the *Mayo* framework, i.e. FSTP thinking, both these terms are evidently supposed to be part of an ET CI of the *Interval* patent, i.e. part of this ET CI's total inventivity, i.e. part of this ET CI's inventive concept. The questions then to be clarified are: "Are these compound or elementary inventive concepts of this ET CI?"[4.c)] and "Are these inventive concepts of this ET CI independent?"[4.c)].

To the second question, ftn[3)] provides the *Biosig* conforming (as presumably inventor determined) answer "no, they both together are to be conceived as a single inventive concept[4.c)], as a redundancy", which hence is adopted by the *Interval* decision. This answers also the first question: "The only inventive concept is an elementary one", as – due to this redundancy – creating it by the inventor evidently requires creating only a single independent thought [150], which makes the independency question obsolete.

.c) The question then is whether the BED-crC modeling this thought is definite. It is iff in BED-crC's domain its truth-set, TS, is precisely defined (i.e. mathematically definable on top of a model [150], otherwise it is indefinite[5.b)/c)]) as a precisely defined subset TSSS or its posc confirmed subset PDTSSS of a precisely defined set S-BED-crC. If for BED-crC holds TS≠S-BED-crC, then BED-crC is called an "inventive concept of degree" [4.c)]. **This generalization, precision, and canonization of the hitherto vaguely defined notion of "term of degree" as used by the *Interval* opinion (p. 11) might mostly totally reduce the need of posc in definiteness issues – if confirmed by a Highest Court**. For a so defined inventive concept of degree BED-crC drafting a "BED-crC model" is easy, if BED-crC's domain may be limited accordingly, and vice versa[4.c)].

E.g.: The intuitive (incomplete/imprecise/ [150]) model underlying the (decidable/precise) definition of this (displaying property) BED-crC ::= "*unobtrusive manner not distracting a user*" here may be designed as felt appropriate by him/her, e.g. for identifying (by someone) all parameters of small display areas on the screen outside of the "main activity display area" and/or within the latter (by the provider of this main activity), and/or periodical display periods smoothly lightening up and dimming down display areas, …[7.b)].

.d) Note that by a second glance at the *Interval* ET CI it shows that it comprises also other BED-crCs[4.c)]!

III.1.2 In the ***Biosig*** hearing [147], a second CAFC panel discussed the (in)definiteness of this case's ET CI. A hearing is not a decision, yet it already conveys the uneasy feeling that this CAFC panel has in mind, as compared to the first panel, a substantially different guidance to the Supreme Court's notion of definiteness of a CI and also a substantially different notion of this definiteness than the Supreme Court's such notions – both clearly specified/required by its *Biosig* decision and elaborated on by the preceding 4 comments on the first panel's *Interval* decision.

The reasons of this unease basically are: This second CAFC panel

- addresses none of the 4 fundamental aspects of the Supreme Court's guidance resp. definiteness notions commented on in III.1.1, but
- focuses on 4 quite other notions: **i)** "ex-/intrinsic evidence", **ii)** "reasonable certainty", **iii)** "standard"[3)], and **iv)** "claim". Of these 4 notions, this second panel's questions **do NOT indicate** that it, as to **i)/iv)**, will change the CAFC's hitherto SPL precedents due to *Biosig* requirements, as to **iii)**, agrees with the definiteness test of a CI clearly defined by the Supreme Court in *Biosig,* but considers this test as non-existent/vague, and as to **ii)**, shares the Supreme Court's meaning[4)].

III.1.3 In the ***DDR*** opinion [156], the definiteness of *DDR*'s '399 ET CI is analyzed by a third CAFC panel, proceeding within the (in)definiteness framework established by the first panel, see III.1.1. Thus, here the Supreme Court's *Biosig* guidance straightforward leads to determining these ET CIs' definiteness, as explained next.

Section C. of the *DDR* opinion shows that the *DDR*'s '399 ET CIs are attacked for indefiniteness by the set of their allegedly indefinite building blocks[4.c)][7.a)] "*visually perceptible elements*" alias "*'look and feel' elements that can be seen*". The *DDR* opinion, due to[7.b).c)], correctly[7.d)] states (p.24-27) that "*the term had an established meaning in the art by the relevant time frame … [and] … informed those skilled in the art about the scope of the '399 claims*" – hence this look-and feel component of ET CI"s total inventive concept is definite, which defeats this attack[7.e)].

For the definiteness of the whole ET CI see ftn[17)].

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[7] **.a)** For simplicity differences between "terms" in *DDR/Interval* and "building blocks of human ingenuity (ohi) of an inventive concept" are here ignored[4.c)]. III.2 briefly outlines the distinctions between an ET CI"s "terms", "claim terms", "inventive concept", and its "building blocks ohi" of *Mayo/Alice*[4.c)].

.b) That any "*visually perceptible element*", i.e. building block ohi, is definite is easily proven as in[6.c)] for the crucial *Interval* inventive concept. This "inventive concepts (mathematically) modeling" approach[4.c)] to determining an inventive concept's definiteness guarantees that much more scrutiny is thereby applied than in the today established "arguing by word acrobatics" approach, practiced by the parties in the *Interval/DDR* cases. In FSTP Technology the definitions of BED-crCs and their models are part of FSTP test.1.

.c) That the definiteness of all inventive concepts[4.c)] of an ET CI is not only necessary for this ET CI being definite but also sufficient, is recognized at the first glance at the FSTP-Test. For here using "inventive concepts", especially BED-crCs[7.a)], see the final paragraph of the introductory remarks to III and III.2.

.d) The '399 patent nowhere tells, how voluminous or subtle the look and feel of a host application exactly may become and/or how many ≥1 corresponding *visually perceptible elements* to it a '399 ET CI's composite pages are supposed to have. Thus, e.g. claim 19 enables a broad range of interpretations[5)]. Note that this is even a rigorous proof of definiteness of the '399 ET CIs, not just a verbose argument – possible only, as it disaggregates the compound inventive concept "look and feel" into the set of its BED-crCs [150,151].

.e) The just commented way of determining an ET CI is definite, i.e. that it passes the *Biosig* test – as practiced by the *Interval* and now by the *DDR* opinion (here taking 3 pages) – is superfluous. The *Biosig* standard namely enables replacing this verbose determination by a theorem, saying[5)]: "An ET CI and its set of interpretations are definite, iff all their inventive concepts are and meet all § 112 requirements."[7.b).c)]

III.2 The CAFC and Determining an ET CI's Patent-(In)Eligibility by the *Alice* test

This subsection starts with commenting on the CAFC's *DDR* opinion [156] – comprising some explanation of its distinction from its prior *Ultramercial* decision by another CAFC panel – and terminates with the CAFC's recent *Myriad* decision [159].

The comment on the first opinion (in III.2.1) is much more elaborate than on the second one (in III.2.2), as it explains how the scrutiny in patent-eligibility testing may be substantially increased, i.e. eliminates the vagueness hitherto accepted thereby – by getting much more precise about an ET CI's inventive concept than usual. Thus, the comment on the latter opinion need not repeat explaining the shortcomings of the in *DDR* practiced thinking, which there are caused by its lack of scrutiny in identifying this inventive concept[4.c)] – which makes this thinking unnecessarily vague and thus invites controversies this increased scrutiny would definitively prevent.

III.2.1 In the ***DDR*** opinion the third CAFC panel shows that its ET CIs are patent-eligible, too – additionally to being definite, as determined in III.1.3 – again in principle well substantiated by using the Supreme Court's guidance provided by its *Alice* decision. This patent-eligibility determination is based on the notion of the '399 ET CIs' inventive concept[4.c)], exactly as *Mayo/Alice* explicitly require – whereby the CAFC now for the first time uses this notion by leveraging on its meaning's really groundbreaking sense, as defined by these two Supreme Court decisions.

Due to this potential further (see III.1.1) quite fundamental change of the CAFC's precedents on ET CIs, some "overall clarification" is needed and provided by two lengthy remarks (under the below two bullet points):

- The *DDR* opinion may take the CAFC a further huge step forward in reconciling the CAFC's SPL precedents on ET CIs with the respective guidance provided by the Supreme Court's *Mayo/Alice* decisions. Thereby the here discussed huge step of the CAFC then were to be seen in its now acknowledging that this guidance provided by the *Mayo/Alice* decisions explicitly requires to base an ET CI's patent-eligibility determination on its inventive concept – i.e. on a notion not self-explaining, by no means, as proven by the CAFC's and PTO's hitherto total reluctance to using it.

  I.e.: Since *Mayo* these intellectual steps – of apprehending the new difficulties for SPL precedents arising from ET CIs – are overdue, as not understood because of their mental size, i.e. that they were totally incomprehensible if seen from the established SPL precedents point of view. This Supreme Court guidance and its allegedly mysterious steps thus were erroneously felt, by virtually the whole patent community including the CAFC and PTO, to lead into the nirvana [82,112,129, 92[B]].

  This total refusal – to seriously try taking these steps – is no longer tenable, in particular not by Academia [113,146], since *Alice* recently enforced and also facilitated performing them. Consequently now the two CAFC panels of its *Interval/DDR* decisions clearly follow this Supreme Court guidance and thus prove that it is comprehensible and very reasonable – as very helpful in the determination of an ET CIs' definiteness and patent-eligibility – thus vastly reconciling the CAFC's relation to it.

- But, in spite of the huge mental size of these steps forward of two panels of the CAFC, here and in III.1.1 – they do not yet take the US patent system (CAFC, District Courts, PTO, ET investors, …) to where the Supreme Court wants it to be: In a position to efficiently foster ET CIs and their R&D, S&M, … crews. To this end these crews primarily need much clearer and much more robust patents on their ET CIs.

  For bringing the whole US patent system in its full breadth into this position, the Supreme Court's guidance – currently penetrating into the CAFC's thinking – must be translated into a small set of easily to grasp and apply tests [150], mirroring the quite concrete concerns of SPL, which must practically be applied when dealing with ET CIs[8]. The above Supreme Court guidance and the new CAFC thinking (just as the new PTO guideline [160]) are by far still too abstract for serving as a broadly usable standard – they evidently have the characteristics of any guideline: To abstract from its case specific peculiarities in favor of clarifying the principles to be obeyed when dealing with these peculiarities[9].

  Not performing – in an ET CI's SPL test – this translation of the Supreme Court's and/or now also CAFC's abstract and nonoperational "guideline type" tests into concrete and operational tests, e.g. into the FSTP-Test of FSTP Technology [150,151] or alike, inevitably puts the tester into legal limbo. This uncertainty also is left in any patent (application) on an ET CI, which has been drafted by sparing the FSTP-Test – just as it is inevitably encountered when examining this ET CI, or reading the respective PTO guideline [157] required by the Examiners to this end, without applying the FSTP-Test – whether this is noticed by the Examiner or not!

  I.e.: Just as in everybody's everyday life experience, also here any such abstract guideline/test is legally unreliable/trustless/unsound. This is clearly/correctly felt and reflected by the anew harsh pundits of this guidance [157,160], complaining it would again not reduce this uncertainty. The reason being: The transparency/reliability/trustworthiness in the result of an ET CI's SPL test – these critics are disparately in search of – often cannot be delivered by an abstract SPL test, simply as this transparency/reliability/trustworthiness is not achievable/existing on this abstract level of notional resolution, on which this SPL test is located/performed.

  This transparency/reliability/trustworthiness can be delivered about any doubt by the FSTP-Test, due to its (right in test.1) complete removal of any abstractness by refining any original/abstract, i.e. compound ET CI creative concept under SPL test, i.e. any BOD/BAD-crC[10], into a logically equivalent conjunction of elementary creative concepts[4.c)], BED-crCs, of this ET CI. Logically BOD/BAD-crCs namely often defeat transparency/reliability/trustworthiness, but BED-crCs enforce them.

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8 Only this small/simple/mandatory/unquestionably clear set of tests deserves to be called "standard"[3.b)].

9 By contrast, FSTP Technology performs this translation[10)] completely, as explained by the tutorials [150,151]. This technology now presents its subject matter – SPL precedents, as to CT as well as ET CIs – just as any other computer based technology presents its subject area. Thus, for the mass of members of the patent community (with a minimum of technical or nature science or …, background) its implementation by the IES [60,153,160] will be straightforward digestible, i.e. the translation of the Supreme Court's resp. guidance and both these CAFC decisions into "SPL standard tests", applicable especially to ET CIs.

10 Of the BED-inCs of the CI under SPL test, in FSTP-test.1 only their BED-crC components count, i.e. their BED-leCs components are on its original and abstract level of notional resolution initially still irrelevant, i.e. the BOD/BAD-leCs [150].

For getting much more precise about an ET CI's inventive concept[4.c)], the key notion of this translation[11)], i.e. the meaning of this term, must be better understood and hence is next briefly outlined as to some of its fundamental features (see the below bullet points). Thereafter two short paragraphs will show by means of the *DDR* decision that the Supreme Court's abstract *Mayo/Biosig/Alice* decisions – to this abstraction evidently only it is entitled by the Constitution[12)] – though guiding the CAFC to correctly determining of the '399 ET CIs their definiteness and patent-eligibility while thereby remaining with its inventive concept on this "BAD level" only, nevertheless often require this inventive concept's refinement to the BED level[13)].

The here in particular relevant features of this notion inventive concept[4.c)] are:

- It refines these determinations by usually representing further and more detailed and concise "invention minded" information about this CI than provided by the "technology minded" terms/notions used by its claim sentence (see the last bullet point). This more detailed/concise "invention minded" information is gained by "reengineering" the invention process as the CI's inventor created and disclosed it[14)].
- Only so applied scrutiny is capable of guaranteeing that this CI's interpretation really mirrors what the inventor considered, when inventing this CI, to be new and useful with it. In other words: This additional scrutiny is indispensable for dependably identifying this CI's inventive concept.
- Needless to say that this strong emphasis on retrieving/regenerating from the specification's disclosures, what the inventor considered – when inventing this CI – to be new and useful with it[14)], evidently reaches far beyond solely this CI's patent-(in)eligibility issue. By *Mayo/Alice*, the Supreme Court put ET CIs' SPL precedents by the notion of inventive concept on a paradigm, which impacts on all aspects of SPL precedents, especially as to patents dealing with ET CIs.
- The above distinction between terms vs claim terms vs inventive concept is crucial. SPL precedents is completely crippled by using ●) "terms" or ●) "claim terms" or ●) inventive concepts[4.c)] without being aware of the notional distinctions between the first two bullet items explained in the CAFC's "Phillips" decision, resp. between the last bullet item and the 2 preceding ones explained in *Mayo/Alice* [121].

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11 The only safe way of performing this just outlined indispensable translation, for thus getting the US patent system into this position – i.e. enabling it to foster ET CIs and their crews, as the Supreme Court's *Mayo* opinion clearly stated to be its concern – is the scientification of SPL precedents[2.a)], especially as to ET CIs. It eventually leads to a clean "SPL Technology" (what the author hoped when founding and financing the FSTP project and dedicated all his 24x7x365 hours time to it for the last 5 years) as described by the more recent publications listed in the Reference List by the end of this paper.

12 Hence, eventually neither the CAFC nor a District Court, nor the PTO's PTAB are entitled to making such legal decisions on the BAD level only, as then these are clearly un-, at least under-substantiated – conceded by the resp. decision maker or not – not applying for the guideline making Supreme Court.

13 Otherwise it often is impossible to remove any doubt or only uncertainty – often inevitably prevailing on this BAD level guidance to presenting an ET CI's inventive concept – about the so performed definiteness and patent-eligibility determinations, i.e. to increase these determinations' rigor by transferring the presentation of this inventive concept to the BED level of notional resolution. And being aware of the indispensability of applying this rigor of translating – already when designing and then drafting, for an ET CI, a patent application – this ET CI's inventive concept into its BED-crC presentation, is decisive for this patent(application)'s later robustness under its (re)examination by the PTO and/or a Court.

14 This mental reengineering of the CI's invention process by its inventor is done by identifying the independent thoughts he had to create to this end, described in detail in [150].

Now to the demonstration by means of the *DDR* decision that the refinement of its '399 ET CI's inventive concept, modeled by a BOD-crC, substantially increases the rigor of determining that this '399 ET CI is definite and patent-eligible. This requires first clarifying that the '399 ET CI's total inventivity, modeled by its BOD-crC – in principle being its $\wedge^{\forall BAD\text{-}crCs}$ BAD-crCs on the abstract level = $\wedge^{\forall BED\text{-}crCs}$ BED-crCs on the elementary level – comprises, in addition to the "look-and-feel"-BAD-crC discussed in III.1.3[15], also a "keep-hosting-your-customers"-BOD/BAD/BED-crC[16][17][18][19].

Once this simple and straightforward clarification about the '399 ET CI's total inventivity has been established – not only on the BOD/BAD-levels but also on the BED-level – the determining that this '399 ET CI is definite and patent-eligible is trivial and unquestionable, i.e. ultimately robust: It is •) definite (by *Biosig*), as all its BED-crCs are definite[15][16] and •) patent-eligible (by *Alice*), as its "keep-hosting-your-customers"-BOD/BAD/BED inventive concept[16] evidently transforms its not-patent-eligible look-and-feel inventive BAD/BED inventive concept(s) alias its building block(s) of human ingenuity into a patent-eligible application.

This Subsection III.2.1 is concluded by two important remarks:

- All this paper's footnotes are trivialities for a reader familiar with FSTP-Technology
- It is unlikely that a so loose anticipation statement, as the one in the *DDR* opinion, survived the rigor of the just (only partially) practiced refined claim construction.

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15 As the *DDR* decision explicitly states, the inventive concept "look and feel" is a compound alias abstract inventive concept as it is a set of elementary inventive concepts, representing properties of a web page such as "*logos, colors, page layout, …*" (*DDR* opinion, p.26)[15]. Becoming precise about what the compound inventive concept "look and feel" exactly is, by defining the exact[5.c][7.b] being of any one of these elementary inventive concepts is trivial[7.e].

16 The DDR opinion describes this "keep-hosting-your-customers"-BAD/BED-crC e.g. on p. 22(bottom line)/ 23(top lines). It may be defined more concisely as follows: It is new and useful in the '399 ET CI – which is integrated into an Internet application executed by an Internet host, which there over offers and sells third party products, and which to this end encounters over the Internet from some customers' browsers some requests concerning some of these products, which by normal operation of an Internet application would make the host application forward the customer to the said third party's Internet application system offering this product – as it makes the host application, on encountering such a customer request, not forwarding this customer this way, but instead (of this normal Internet operation) keeps hosting the customer and performs an operation making an outsource provider composing and sending to this customer a reply web page to its said request, whereby this reply web page presents the requested product information from the third party as well as the look-and-feel of the host's application.

Evidently, this BAD/BED-crC may be precisely defined as outlined by ftn[7.e] on top of an intuitive model of this constellation, yet enabling by the services it provides this precise definition[18].

17 The disaggregating/decomposing/quantifying of an ET CI's (usually compound) inventive concept, BAD-crC, into its equivalent conjunction of a set of elementary inventive concepts, BED-crCs, is not always as trivial as in the *DDR* case – but always evident, as shown in III.3 by means of the much more complex ET CI of the '902 and '453 patents. The crucial point with this disaggregation/decomposition/quantification of the ET CI's compound inventive concept, BOD-crC, is that these BED-crCs must be disclosed ex- or implicitly by the ET CI's specification – what did not happen in Alice's patents [150].

18 Once more, as implied already by[6.c][7.b], of the model(s) underlying the definitions of the BED-crCs needs to be known nothing, except that they provide a functionality enabling precisely describing the BED-crC, more precisely: the truth sets within their domains. This is exactly the way Mathematics defines (by means of limited/restricted/purified subsets of whatever natural language serving as its models) its elementary inventive concepts – in Mathematics called "Axioms". Mathematical Theorems then again are derived from underlying exactly defined Models, in this case these Models are so defined Axioms. This is the paradigm underlying any rigorous science – FSTP Technology has, induced primarily by *Mayo*, put SPL precedents on this paradigm.

Hence, on top of this paradigm may be mathematically proven for any ET CI – fulfilling certain mathematical requirements and also pragmatic requirements not elaborated on, here – by the FSTP-Test whether it satisfies SPL.

19 This is true only, as also the "keep-hosting-your-customers" BOD/BAD/BED-crC is definite[18][10].

III.2.2 In the ***DDR*** opinion this third CAFC panel includes short comments on other CAFC panels' decisions, primarily in the *Ultramercial* but also the *buySAFE, Accenture*, and *Bancorp* cases and finding their ET CIs patent-ineligible. As complained in detail earlier about the *Ultramercial* decision [150], none of these CAFC decisions, just as this *DDR* decision, really substantiated that the respective ET CIs had to be determined as non-patent-eligible – due to the *Alice* guideline – but they all just repeated some appropriate guideline wording as substantiation.

But for showing that any one of them is an instantiation alias concretization of the application of the guideline decision, its respective ET CI's deficiency also should have been concretized/instantiated (as done in [150] for *Ultramercial*) – just as the *DDR* decision concretizes/instantiates the reasons for its ET CI being patent-eligible.

This more informative/concise/transparent way of reasoning is indispensable for the self-verification of the correctness of the resp. decision and for showing to others its necessity/imperative – a principle known since the Old Greece.

III.2.3 In the *Myriad* opinion a fourth CAFC panel addresses for two kinds of ET CIs' – namely composition of matter and method kinds – patent-eligibility exemptions, ●) being significantly different from the above ones on grounds of dealing with the ET CIs' inventive concepts comprising natural phenomena (not computer implemented abstract ideas, as above), ●) whereby the Supreme Court nevertheless implicitly required, for both grounds of patent-eligibility and both kinds of ET CIs, to apply the same *Alice* test for determining their resp. patent-(non)eligibility. This panel determines all these ET CIs to be patent-ineligible, too, by reasons substantiated to be allegedly the same as in *Alice.*

Thus, by and large, this *Myriad* opinion clearly tries to apply the guidance provided by *Mayo/Alice*. But, as it considers only the *Myriad* ET CIs' compound inventive concepts, their BOD-crCs, i.e. reasons only on the BOD level of sometimes very coarse notional resolution, the below comments on them seem to be in place – in particular as they are questioning, whether the CAFC's substantiations of its using this Supreme Court guidance is not oversimplifying the latter. The *Alice* decision namely explicitly warned that it did not "*delimit the precise contour of the 'abstract ideas' category*", but just drew analogous conclusions from *Bilski* in such a way that its requirement became evident to become in ET CIs' specifications more specific (than practiced by the specification of the *Alice* ET CIs), about the new and useful inventivity the inventor embodied by his ET CI when creating it – but not to exempt computer implemented ET CIs comprising abstract ideas from patentability [150,151].

But exactly this over-interpretation of *Mayo/Alice* by their oversimplification – known from the public – as it is probably unavoidable, here, when not applying sufficient scrutiny into applying the guidelines (provided by *Mayo/Alice* when analyzing an ET CI) by using these guidelines only on the coarse BOD level of notional resolution, i.e. not refining their use to the BED level – may occur in this new Myriad opinion.

Due to momentarily not having the patents at issue and having run out of time for performing this analysis, its result will be published in the first days of 2015.

III.3 By *Mayo/Biosig/Alice* the CAFC's Earlier Claim Constructions are Legal Errors

Next this paper shows – by means of the author's '453 and '902 patents and [40,41] – that the CAFC until mid 2014 completely ignored the Supreme Court's guidance provided by its 3 just quoted decisions as to claim construction. As both patents have the same specification, the '902 patent and asserted claims are considered as representative also for the '453 case – although being a novelty resp. an obviousness one.

III.3.1 **The '902 Invention**: The '902 ET CI at issue is comprised by U.S. Patent No. 7,145,902, issued in 2005, and deals with Internet telephony.

In its infancy, early in the 90s, Internet telephony was not broadly accepted, despite cost advantages, as then suffering from "lack of quality" problems, which manifested itself in primarily two ways: i) establishing calls often totally failed and/or ii) established calls often encountered an unacceptably high rate of delays and jitters in the voice data transfer. As a consequence, the market did not buy such Internet telephony products, in spite of huge marketing investments into this then Internet telephony technique – apparently it was fading away.

The '902 patent's German root disclosed in '95 a then very innovative remedy against this lack of quality: Namely, to permanently monitor in some way, then known by the posc, the data transfer of an Internet telephone call's "communications connection" (stretching between caller and callee, as known by the posc) and to instantly change-over with exactly this communications connection to a line-switched network – either a Public Switched Telephone Network "PSTN" or an Integrated Services Digital Network "ISDN" – as soon as this monitoring whereso-ever in this communications connection detects that the bandwidth of its data transfer is understepping or exceeding a certain threshold and/or encounters a time delay when forwarding IP data packets. '902 patent at col.9, l.41-58.

The '902 invention thus substantially improved, by a compound inventive concept – as of *Mayo/Alice* – the then already known technique of change-over with a data transfer between networks. Yet, none of these known change-over techniques would ●) monitor this end-to-end-connection, or ●) derive the change-over signal from monitoring this and only this specific connection, or ●) change over with this and only this specific connection – while the '902 ET CIs perform all 3 of these functions. The '902 invention hence provides in a then totally unknown way a substantial improvement of the prior art Internet telephony technique, as it eliminated both the above quality problems **i) / ii)**.

By 2000 Cisco launched a range of new Internet telephony products based on exactly this '902 Internet telephony technique, and since then this the market started to increasingly accept such products. Today, this '902 technology is used by virtually all Internet telephony equipment for business use. The '902 invention hence was, at its priority date, a very innovative ET CI par excellence – being THE concern of the Supreme Court's *Mayo/Alice* decisions.

III.3.2 **The '902 Proceedings**: Cisco, when told in 2007 its new telephony products infringe TELES's '902 patent, requested its *inter partes* reexamination under 35 U.S.C. §§ 311-318 and 37 C.F.R. § 1.913. No amendments were made to the claims during the reexamination. The PTO's Central Examination Unit ("CRU") nullified all but two of the challenged claims. SSBG appealed all CRU's invalidations to the PTO's Board ("BPAI"), and Cisco cross-appealed because of the two preserved claims. The BPAI's decision on March 23, 2012 affirmed the decision of the CRU as to all claims.

SSBG filed an appeal against the BPAI's decision invalidating '902 claims. Cisco appealed the decision of the BPAI as to the two claims it determined to be patentable, and SSBG cross-appealed as to Cisco's attack on these two preserved claims. The CAFC's decision [62.a)] found **all** '902 claims at issue invalid, also the 2 preserved ones – as not novel. SSBG asked the CAFC for Rehearing en Banc [65], refused by it on May 27, 2014 [75]. SSBG asked the Supreme Court for a Writ of Certiorari [92], denied by it [158].

The Supreme Court is entitled to this denial without explanation. Thus the Subsection III.3.3 can explain only why the authors thinks, both CAFC decisions are legal errors, as they both evidently diametrically contradict the Supreme Court's 3 above quoted groundbreaking decisions.

III.3.3 ***Phillips/Biosig/Alice* – Each Ruins the CAFC's '902 Decision**: The '902 Opinion of a sixth panel of the CAFC [62] totally depends on its use of the BRI^{pto}. Its Opinion explicitly approves as correct •) the BPAI's use of the BRI^{pto} in finalizing a reexamination (p. 8, the two bottom lines; p. 13, five lines above headline B.) and •) its own use of the BRI^{pto} (p. 10, the two bottom lines).

Both statements of this panel – approving that applying the BRI^{pto} is correct – are result determinative legal errors, due to 3 reasons: They both contradict the

1.) CAFC's 2005 *Phillips* decision by applying and overstretching an earlier, 2004, decision which says: "*During reexaminations,* claims … *are to be given their broadest reasonable interpretation …*". The panel stretches the "*During reexaminations …*" to comprise the time of legally finalizing examination – while *Phillips* does not exempt any time already after examination from its rule, to determine the meanings of a CI's "claim terms" as exactly those clearly identified by it to be those of the inventor (which meanwhile is confirmed by the Supreme Court's *Biosig* decision, by vacating this very CAFC decision, see 2.) next).

2.) Supreme Court's *Biosig* decision, which explicitly forbids the use of the BRI^{pto}, as explained above in III.1.1, under "Secondly" (on pa.5).

3.) Supreme Court's *Alice* decision,

(a) firstly, by assuming it were no legal error to ignore in construing for an ET CI its claim construction the formal proceeding as *Alice* explicitly requires – the panel even assumes ('902 Opinion, ftn$^{12)}$) *Alice* had nothing to do with claim construction (though for what the *Alice* opinion does there is no other interpretation than that it performs, at the beginning of the patent-eligibility determina-

tion of an ET CI, the start of a then necessarily still incomplete claim construction). But only the Supreme Court is, by Constitution, entitled to overruling its own decisions without committing a legal error – not the CAFC.

(b) secondly, by its confirmed use of the BRI^{pto}, this panel logically explicitly excludes the paradigm, on which the formal proceeding addressed in **(a)** is based, namely the paradigm component that the search for the inventive concept embodied by the ET CI under *Alice* test is performed/controlled by the inventor and can be rejected or approved by a court but not replaced by a court.

In total, this panel's insistence at that time to be entitled to apply the BRI^{pto}, and the CAFC's rejection of the author's so structured Petition for Rehearing en Banc, shows that then no impact was observable on the CAFC precedents as to ET CIs – as evidently required by the Supreme Court's *Mayo/Biosig/Alice* decision.

That then the *Biosig/Alice* decisions have not yet been available does not change this result: Both decisions are just inevitable consequences of *Mayo* – for consistency/logical reasons.

III.3.4 Some Aftermath to the '902 and '453 Decisions

Everything said above about the '902 ET CI also holds for this CAFC panel's decision in the '453 case – i.e. all differences between both cases are legally marginal.

The CAFC would have instantly recognized all these legal errors if it had not applied the BRI^{pto} but at least its own BRI^{phi} – not to speak would have proceeded as required by *Mayo/Biosig/Alice*: Then the absurdity of its claim constructions would have become evident with any one of these legal errors, i.e. they were avoided.

Note: This is a convincing example showing that the *Mayo/Biosig/Alice* framework does not only increase the quality of patent(application)s, i.e. its robustness, but also of court decisions on them[20].

Finally: Ftn[21] is an amusing remark, sarcastically commenting on all non-novelty/obviousness findings concerning the '902 and '453 inventions.

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20 The '902 decision, in addition to this fundamental legal error – contradicting its own *Phillips* precedents, and even Circuit Judge K. O'Malley [21], emphasizing that *Phillips* is legally binding all courts, not to speak of contradicting *Mayo/Alice* – the CAFC commits further legal errors by ignoring e.g. that

●) the by it invented interpretation of the '902 ET CI, I* – claimed by nobody and nowhere – .) neither eliminates the problems i)/ii) described/disclosed (see III.3.1) to be the decisive property of the '902 ET CI, :) nor works, at all, with the CAFC's off-the-shelf multiplexers [41,62]

●) using the BRI^{pto} made the CAFC understanding the '902 claim 68 to be so broad that its scope('902 claim 68) comprises a data transfer technique explicitly excluded by the '902 specification as being prior art [41]; but, a claim interpretation evidently contradicting the claim's specification is excluded even by the BRI^{pto} (see [14], first sentence), and

●) packet-switching transmissions alias packet-switching "channels" through a network don't make it a packet-switching network, otherwise most PSTNs were packet-switching networks, absurdly.

21 The PTO granted SSBG 3 new patents, leveraging on the '902 invention in various mobile (i.e. non-PSTN/ISDN) environments, all these patents having the same specification – although their Examiners knew about the '902 patent's reexamination and litigation, as evidenced by their complete quotations on these new patents' cover pages. By [62,63], the CAFC thus pretends to know better than the PTO's BPAI/CRU/Examiners that the '902 invention(s) were non-novel/obvious in '95 – in particular the 2 "multiplexer '902 claims", which the PTO preserved as patentable! By granting said 3 new SSBG patents, their Examiners clearly expressed their view of this reexamination/judicial '902 hoax.

III.4 A Brief Aftermath to this Paper and the Current PTO Guideline

Due to the extension of this paper in the first days of 2015 to comment on the CAFC's very recent *Myriad* decision, this whole Section also goes into it. This holds, in particular, also to the PTO's new tentative guideline [157] – whereby a first comment on it is above already comprised by page 8.

Abbreviated Reference List of the FSTP-Project

FSTP = facts screening/transforming/presenting
(Version_of_23.12.2014, i.e. of this paper, see the complete actual list on)*

[1] S. Schindler: "US Highest Courts' Patent Precedents in Mayo/Myriad/ CLS/Ultramercial/LBC: 'Inventive Concepts' Accepted – 'Abstract Ideas' Next? Patenting Emerging Tech. Inventions Now without Intricacies"*).

[2] AIT, "Advanced Information Tech." or "Artificial Intelligence Tech.", denotes topical IT areas, e.g. AI, KR, DL, NL, Semantics, System Design Tech.

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[5] S. Schindler: "Math. Model. Substantive Patent Law (SPL) Top-Down vs. Bottom-Up", Yokohama, JURISIN 2013*).

[6] S. Schindler, "FSTP" pat. appl.: "THE FSTP EXPERT SYSTEM", 2012*).

[7] S. Schindler, "DS" pat. appl.: "AN INNO. EXP. SYS., IES, & ITS PTR-DS", 2013*).

[8] S. Schindler, J. Schulze: "Technical Report #1 on the '902 PTR", 2014*)(soon)

[9] S. Schindler: "Patent Business – Before Shake-up", 2013*)

[10] SSBG's AB to CAFC in LBC, 2013*).

[11] S. Schindler, "inC" pat. appl.: "inC ENABLED SEMI-AUTO. SPL TESTS", 2013*).

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[15] S. Schindler: "KR Support for SPL Precedents", Barcelona, eKNOW-2014*).

[16] J. Daily, S. Kieff: "Anything under the Sun Made by Humans SPL Doctrine as Endogenous Institutions for Commercial Innovation", Stanford / GWU*).

[17] CAFC En banc Hearing in LBC, 12.09.2013.

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[19] SSBG AB to the Supreme Court in WildTangent, 23.09.2013*).

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[21] K. O'Malley: Keynote Address, IPO, 2013*).

[22] S. Schindler, "The View of an Inventor at the Grace Period", Kiev, 2013*).

[23] S. Schindler, "The IES and its In-C Enabled SPL Tests", Munich, 2013*).

[24] S. Schindler, "Two Fundamental Theorems of 'Math. Innovation Science'", Hong Kong, ECM-2013*).

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[26] SSBG AB to the Supreme Court in Bilski, 06.08.2009*).

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[28] N. Fuchs, R. Schwitter. "Attempt to Controlled English", 1996.

[29] A. Paschke: "Rules / Logic Programming in the Web". 7. ISS, Galway, 2011.

[30] K. Ashley, V. Walker, "From Information Retrieval to Arg. Retrieval for Legal Cases: .....", Bologna, JURIX-2013*).

[31] Hearing in Oracle vs. Google, "As to Copyrightability of the Java Platform", CAFC, 06.12.2013.

[32] S. Schindler, "A KR Based Innovation Expert System (IES) for US SPL Precedents", Phuket, ICIM-2014*).

[33] S. Schindler, "Status Report about the FSTP Prototype", Hyderabat, GIPC-2014.

[34] S. Schindler, "Status Report about the FSTP Prototype", Moscow, LESI, 2014.

[35] S. Schindler, IPR-MEMO: "Substantive Trademark Law (STL), Substantive Copyright Law (SCL), and Substantive Patent Law (SPL) – STL Tests Are SCL Subtests, SCL Tests Are SPL Subtests", in prep.

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[37] D.-M. Bey, C. Cotropia, "The Unreasonableness of the BRI Standard", AIPLA, 2009*).

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[39] Transcript of the en banc Hearing in CLS vs. ALICE, CAFC, 08.02.2013*).

[40] SSBG's Brief to the CAFC in case '453*).

[41] SSBG's Brief to the CAFC in case '902*).

[42] SSBG's Amicus Brief to the CAFC in case CLS, 06.12.2012*).

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[44] R. Rader: "Patent on Life Sciences", Berlin, LESI, 2012.

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[51] BIOSIG, Respondent, 2013*)
[52] Public Knowledge et al., AB, 2013*).
[53] Amazon et al., AB, 2013*).
[54] White House, FACT SHEET - ... the President's Call to Strength. Our Patent System and Foster Innovation, 2014*).
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[62] .a) CAFC decision on reexamination of U.S. Pat. No. 7,145,902, 21.02.2014*).
[63] .b) CAFC decision on reexamination of U.S. Pat. No 6,954,453, 04.04.2014*).
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[65] SSBG's Petition to the CAFC for Rehearing En Banc in the '902 case, 18.04.2014*).
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