

To: USPTO, Docket No.: PTO-P-2018-0033: *This statement may help to comment on USPTO's Berkheimer PE-guideline (by 20.08.2018)*

## A Fresh Look at the USPTO's PE-Guidance – by Andrei Iancu before the AEI<sup>[478]</sup>.

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While the ANNEX repeats a very short comment on the *Berkheimer* PE-guideline, this comment is fundamental. But most of its shortcomings couldn't have been avoided by the drafters as they had to use the – until very recently<sup>[479]</sup> – mandatory BRI<sup>1)</sup>. Thereby this use of the BRI (or any other interpreter) clearly shows that this interpretation 'under-interprets' the specification of *Alice's* Solomonic PE-analysis, as it ignores/pseudo-/de-defines<sup>2.d)</sup> 'interpretation-outcome-determinative' notions (comprised by this PE-analysis specification<sup>2.b)</sup>). At the AEI meeting in DC on 21.06.2018, Andrei Iancu addressed these flaws of the PE-guidance by outlining the need to adjust it to the framework<sup>e)</sup>, for eliminating the PE-atrocities caused by it.

This ignoring/pseudo-/de-defining in the USPTO's §101-/PE-guidance is unquestionably clarified under **#1** of the below list of existing vast deviations of the USPTO's (& CAFC's) PE-understanding from what is required by the US Constitution and Supreme Court. **#2** reminds, without much comment, of the CAFC's occasional difficulties to decide SPL-cases as the Supreme Court by its framework required, whereby the USPTO closely watches the CAFC's decisions. The **#3** and **#4** touched by Andrei Iancu are equally briefly dealt with, only. All 4 problems with the PE-guidance disappear, if **#1** is resolved as by the framework required.

**#1: Under-Interpretation** A look back at the USPTO's various PE-guidelines and workshops shows that they caused by their very vague information the – under incentivization aspects – disastrous PE-misery of the US NPS, especially in the pharmaceutical/DNA area<sup>[415]</sup>. Yet, the AIPLA strongly feels<sup>[376]</sup> that there is solely a missing/mysterious "clou" for understanding what the Supreme Court's PE-criterion is, in reality. Since Kuhn such "clous" are known as the kernels of scientific paradigm shifts<sup>[335]</sup>, also called 'Shannon-events'<sup>[422,415fn2.d)]</sup> – by the way, beautifully fitting to Andrei Iancu's amazing historic views at the US inventivity<sup>[473,478]</sup>.

<sup>1</sup> – even after knowing what the Supreme Court ●expected also from the USPTO and the CAFC as to proceduralizing the declarative (i.e. non-procedural) opinions of the Supreme Court's unanimous framework decisions in *KSR/Bilski/Mayo/Myriad/Biosig/Alice* and ●thought about the BRI. This knowledge is evidenced under **a)-d)** in historical sequence.

In paradigm-shifting such confusion is a 'natural phenomenon' – as initially known from 'emerging technology claimed inventions, ETCis' – by Planck sarcastically commented as only by nature terminable, by Shannon (??) pragmatically called 'paradigm phobia'.

- a) The Supreme Court rejected several CAFC decisions, any indicating that the Supreme Court requires to take into account the new quality of inventions based on emerging technologies (ETs), hence requiring the corresponding refinement of patent precedent, in particular recognizing the existence of the upcoming ●risks that these increasingly embody by their inventions' hitherto unknown degrees of preemptivity (which today have become evident for anybody by the emergence of 'gene editing' techniques – by the way with all likelihood coming up pretty soon, in one of their versions, before the CAFC and the Supreme Court) in conjunction with the ●exceptional creative/inventive concepts (i.e. abstract ideas, natural phenomena, ...). The combination of both comprises a plethora of socioeconomic threats for the SPL, for the today's best reduction of which the framework's *Alice* decision provides a Solomonic analysis – by the patent community first confused and by now unfortunately grossly erroneously interpreted (see **#1** above).
- b) **Justice Breyer**<sup>[69]</sup>: "Different judges can have different interpretations. All you're getting is mine, ok? I think it's easy to say that Archimedes can't just go to a boat builder and say, apply my idea [i.e. the natural phenomenon of a boat's water displacement] ... Everybody agrees with that. But now we try to take that word "apply" and give content to it. And what I suspect, in my opinion, *Mayo* did and *Bilski* and the other cases, is to sketch an outer shell [i.e. framework] of the content, **hoping that the experts, you and the other lawyers and the CAFC, could fill in a little better than we had done the content of that shell...**" [highlights added]
- c) **Justice Ginsberg**<sup>[81,127]</sup> (as to the BRI's untenability): "It cannot be sufficient that a court can [always] ascribe some meaning to a patent's claims ... post hoc", as the Constitution authorized "...to inventors the exclusive right to **their** discoveries, ..." [highlights added]
- d) **Chief Justice Roberts**<sup>[279]</sup> (as to the coexistence of the BRI<sup>[USPTO]</sup> and the BRI<sup>[CAFC]</sup><sup>[56]</sup>): "...it's a very extraordinary animal in legal culture to have two different proceedings addressing the same question that lead to different results. .... I'm sorry. It just seems to me that's a **bizarre way to decide a legal question.**" [highlights added]
- e) The notion of 'framework' is in *Alice* defined as the notion/capability<sup>2.c)</sup> distinguishing patent(application)s that claim abstract ideas and laws of nature (modeled<sup>2.c)</sup> by exceptional = "PE concepts) from those that claim PE applications of those "PE concepts.

The PE-clou of the FSTP-Test is – as it is pretty intricate – postponed to<sup>#4</sup>. Here it is only explained that and how all these PE-guidelines under-interpret(ed) the *Alice* decision's PE-analysis specification.

There are two different qualities of reasons for the PE-guidelines' under-interpretation of the *Alice* decision's PE-analysis<sup>2.a)</sup>: ● The trivial under-interpretation<sup>[e.g.354, fn2.d)]</sup> that simply ignores/pseudo-/de-defines at least one key notion of the PE-analysis<sup>c)</sup>, below explained under **A**), and ● the principal/academic under-interpretation of the PE-analysis, outlined under **B**) thereafter<sup>[e.g.433,fn1.b)]</sup> – both basically comprising already this filigree of the PE-problem.<sup>b)</sup>

**A)**: The crucial notions<sup>c)</sup> used in *Alice*'s PE-analysis (specification) – crucial as being ignored or pseudo-defined or de-defined by the PE-guidance<sup>d)</sup> – are required by the Supreme Court to be correctly interpretable/interpreted<sup>#4</sup>, otherwise it would not have used them (frequently).

Some of these not commonly known and hence by the PE-guidance 'under-interpreted' key notions of the PE-analysis are: “**concept**” (5 X used alone in the PE-analysis specification on p.7, ignored), “**preemptivity**” (very often used in most framework-opinions of the Supreme Court, ignored), “**transform the nature of the claim**” (1 X used in the PE-analysis specification on p.7, ignored), “**the patent .... amounts to significantly more than a patent ...**” (1 X used in the PE-analysis specification on p.7, ignored<sup>d)</sup>), “**sufficient to ensure ...**” (1 X used in the PE-analysis specification on p.7, ignored<sup>d)</sup>), .... With that many (allegedly) missing or misleading sophisticated meanings in the PE-analysis specification it seems hard to guess its correct filigree meaning. In<sup>#4</sup> will be shown that it is easy, once the above “clou” is known.

**B)**: The fragmentary statement in **A**) may be completed as follows: By the Supreme Court's framework an ETCI's PE-criterion comprises 5 requirements: An ETCI is granted PE iff **1.)** at minimal invasivity into the pre-framework SPL is guaranteed that the ETCI is 'limited preemptive' (*Bilski/ Mayo/Myriad/Alice*), **2.)** construable by its 'inventive concepts' that are **3.)** modeled by metarational and rational (alias atomic alias elementary) notions<sup>[415fn3.d)]</sup> (*Mayo/Myriad/Alice*) and that are **4.)** derived by screening the ETCI's whole specification for finding them (*Markman/ Mayo/ Biosig/Alice*), such as **5.)** by *Biosig* required.

While the ANNEX states that the 3 *Berkheimer* notions are highly metaphysical, **A**) shows that the '2-step PE-test' of the PE-guidelines grossly fails to correctly interpret *Alice*'s PE-analysis, while **B**) reports the same (not elaborated on, here, but in many FSTP-publication dealing ), but by means of vastly other notions. This latter redundancy dramatically increases the probability that both, **A**) and **B**), are correct. More precisely: **B**) is by the FSTP-Test mathematically proven to be correct.

<sup>2.a)</sup> In its PE-analysis specification (in *Alice*) the Supreme Court clearly specifies the PE-problem, i.e. all its constituents & their basic interrelations. It thus definitely does not specify a solution of a not yet specified PE-problem!!! This is the fundamental misunderstanding of the USPTO & CAFC, induced to them by the BRI<sup>1.a)</sup> – encouraging them to under-interpret this PE-problem specification, here even by brute force.

The FSTP-Project grasped the PE-problem so by the Supreme Court specified – the latter thereby obeying its Constitutional socioeconomic responsibility in an absolutely evident way – and developed the FSTP-Test. It decides for any 'claimed invention, CI', whether it has the properties necessary and sufficient for meeting 35 USC §§ 101/102/103/112, i.e. for solving especially the PE-problem.

For enabling mathematically proving that this statement is correct, the FSTP-Project upfront showed by cutting edge Knowledge Representation<sup>[4]</sup> that all the notions<sup>c)</sup> of 35 USC §§ 101/102/103/112 (in its Supreme Court reinterpretation by its framework) and all 'Substantive Patent Law, SPL' precedents are rationalizable and mathematizable, also the Supreme Court's framework decisions. On this mathematical basis it is easy to show mathematically that the FSTP-Test is indeed correct<sup>[see the Ref.-List]</sup>.

<sup>b)</sup> Both under-interpretations by the PE-guidelines are evidently encouraged by the BRI – which by the PE-guidelines is denoted as indispensable – to interpret the wording of the *Alice*'s PE-analysis in the USPTO-developed way, not as required by the Supreme Court.

<sup>c)</sup> A 'term' or 'item' is an arbitrary 'identifier' alias 'name'/acronym/reference/.../wording'. A pair <term/..., its 'meaning'> is called 'notion'/'synonym', denoted by its name. A notion's meaning, assigned to its term/name/.../wording, is called the latter's 'semantics' – and semantics for a specific need, the latter's 'pragmatics', whereby the process of this meaning/pragmatics assigning and its notion are called 'interpreting'/'interpretation'. The notion of making/creating new meanings/semantics/pragmatics and/or their terms is called 'semiotics'. Due to the in the FSTP-Project used notion of AI<sup>[2]/[470, fn1.b)]</sup>, the necessary & sufficient requirement for 'modeling' an at least metarational natural language word is: For it there is no other meaning (under no condition) than the metarational one – by the 'person of pertinent ordinary skill and creativity, pposc' to be confirmed.

<sup>d)</sup> reciting a term or a notion or a meaning – as done in the famous figure explaining the USPTO's '2-step PE-test' in **2106 Patent Subject Matter Eligibility** – does not define it or an item close to it. If the contrary is assumed, or the references are false, or the statement is evidently contradictory in itself, the resp. item/term/... is considered as by the interpreter 'ignored' ::= pseudo-/de-defined.

**#2: Supreme Court Rejections** The above elaborations might be considered as based on the FSTP-Project's more complicated interpretation of the PE-analysis provided by the *Alice* decision than intended by the Supreme Court. That this assumption is wrong is clearly indicated by the Supreme Court's frequent & unusual public calls to attention, in its framework opinions and respective remands. These calls asked – in the face of the mighty emergence of ETCIs – for ●excluding issuing 'non-robust' patents on ETCIs, for ●excluding especially granting patents on 'totally preemptive' ETCIs<sup>1)</sup> (as these will cause the blockage of granting a patent on other ETCIs or the devaluation of such patents already issued), for ●excluding undue restrictions on ETCIs' PE due to such exclusions, for ●other courts to determine their ETCI decisions in the light of these calls, and for ●cooperation in searching such approaches to the PE-problem solution<sup>1.b)</sup>. Finally – after all these Supreme Court calls were in vain – the latter provided in its *Alice* decision its analysis of the PE-problem as a guidance to finding a procedure/algorithm that determines for any ETCI whether it is PE or nPE.

That this guidance has not been immediately understood by the patent community is not unusual: Paradigm refinements of the in<sup>#1</sup> outlined depth and subtlety – similar to cultural evolutionary steps – have historically taken human generations<sup>335]</sup>. Compared to such periods of time, the duration of 3-4 years for achieving this absolutely reliable understanding of the SPL-framework refinement required by the Supreme Court (even fully scientized/mathematized), is next to nothing. Insofar the SPL-scientification leads to the clou alias Shannon event of<sup>#4</sup> – although it is not trivial.

### **#3: Earlier Consistency/Predictability = Current Reliability/Robustness**

Without using the Supreme Court's framework based SPL refinement it is impossible to guarantee consistency and predictability in SPL precedents alias reliability and robustness of granted US patents – as by investors and inventors into patent business urgently needed – while using it properly does guarantee these advantages.

In addition to the fundamental Constitutional necessity to proceed in SPL-precedents as by the Supreme Court required, there is also the scientific desire to enable SPL-precedents/-reasoning about ETCIs to be predictable/consistent/reliable/robust (i.e. absolutely powerful<sup>453]</sup>) – which in turn prove to be at least as important for everyday patent business as the fundamental aspects of SPL. This is the reason, why the Supreme Court's framework decisions are considered to be Solomonic.

### **#4: Recognizing the Clou**

Any clou may be worded in different ways. The following one renders its basic idea trivial – seemingly.

Virtually all ET claimed inventions comprise an abstract idea or natural phenomenon – due to the nature of ETs to be always 'model'-based, as only partially understood<sup>3.a)</sup>. Such an ETCI<sup>0</sup> must not be granted a patent, as by definition of these exceptional creative concepts the scope(ETCI<sup>0</sup>) may grow autonomously. I.e., legally it then is monopolizing by its unlimited preemptivity all these applications and thus threatens to potentially put the entire US NPS into jeopardy by socioeconomic reasons.

The only way out from this PE-dilemma is to limit all ETCIs' PE to their limited preemptivity. The Supreme Court provided in its *Alice* decision by its PE-analysis an extremely smart cognition how to achieve this limitation of the preemptivity at minimal invasivity into the pre-framework SPL, i.e. which excludes practically no known application of ETCI<sup>0</sup> from PE.

The Supreme Court's idea to start eliminating the PE-dilemma by first creating/developing its analysis is by especially three reasons really Solomonic. It namely enables ●deriving from this PE-analysis a PE-test (the so-called FSTP-Test) being necessary and sufficient for any ETCI to satisfy the framework-based SPL, which comprises rationalizing and even mathematizing the framework-based SPL, vastly ●automating any ETCI's such SPL-testing, and hence ●drafting any ETCI such that it is absolute robust.

<sup>3.a)</sup> This non-understanding alias non-rationalizability applies as to the set of ETCI<sup>0</sup>'s present and its future potential applications. This phenomenon holds especially for DNA-based ETCIs, e.g. 'gene editing'.

**IN TOTAL:** In line with the Supreme Court's responsibility by the US Constitution for interpreting the 35 USC §§ 101, 102, 103, 112 and with Andrei Iancu's multiple explicitly concurring statements, this author suggests to replace in the USPTO's current PE-guideline all obscure notions (identified in **A**) by the corresponding notions based on the Supreme Court's framework decisions. The rest follows by itself.

## ANNEX:

### Excerpt from [470] Republished on 11.06.2018

The USPTO's recent *Berkheimer* PE-Guideline quite openly concedes that the USPTO may issue further PE-guidance in the future. The below very short Section II suffices to explain that this is indeed necessary as this version does not guide toward a PE-problem's solution – stated by Andrei Iancu, too – but teaches away from it.

### The USPTO's *Berkheimer* PE-Guideline Talks the US Patent Community onto a Wrong Track

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#### II. Why the USPTO's *Berkheimer* PE-Guideline Talks the US Patent Community onto a Wrong Track.

Andrei Iancu quoted the best example for why this guideline does not guide to certainty as to resolving the PE-problem: This guideline namely depends on unquestionably determining whether an ETCI at issue is a '*well-understood, routine, conventional activity*'. And he correctly stated that this unquestionability is often not establishable (evidently the case, if something with this ETCI is not *well-understood, e.g. an inC*).<sup>b)</sup>

His statement clearly implies critique. This alleged '*well-understood, routine, conventional activity*'-criterion has at least 3 absolutely untenable deficiencies – for a PE-guideline and a PE-court decision, at least:

- It is a vague legal concept, as it is unclear whether its 3 notions are to be 'anded' or 'ored'.
- Whatever such concatenation between them one would define, it still remains a vague legal concept, as the meaning of any of its 3 terms is indefinite (as long as they are not rationalized<sup>[270ftn4.h.3)]</sup>).
- It is for many ETCIs' PE not a necessary condition (see *DDR, TLI*) or it is necessary but not sufficient for PE, as it still may contradict the Supreme Court's "not-totally-preemptive" requirement, rendering it "PE<sup>b)</sup>).

In total: ●In its basic intention, this guideline is absolutely fine<sup>c)</sup>, but ●in its lack of notional scrutiny (just presented) there is no alternative to stating that it is still heavily confusing and/or misleading<sup>d)</sup>.

<sup>4.a</sup> At the USPTO/PPAC- and AIPLA-meetings in Alexandria & Seattle on 03. & 15.-17.05.2018. SPL = Substantive Patent Law.

<sup>b</sup> By contrast, the Supreme Court provided in its *Alice* decision a solely uniquely interpretable (under scrutiny<sup>[296]</sup>) specification of its PE-analysis<sup>[300,332,354,355,401,434,441,454,459]</sup>. It is correctly and completely interpreted by the FSTP-Test (see ANNEX\_2), being a necessary & sufficient condition for ETCIs' being PE – which is by its execution easily/clearly/unquestionably decidable in its lines 1)-7).

<sup>c</sup> – as it tries as hard as it can<sup>d)</sup> to stop the widely spread malpractice among examiners as well as judges of inflationarily qualifying an ETCI or one of its inventive concepts as '*well-understood, routine, conventional activity*' without providing any legitimation for this finding<sup>[6-g-441]</sup>, as clearly required by the Supreme Court and now also by the USPTO (besides its errors) –

<sup>d</sup> This guideline is not shy – for indoctrinating that this '*well-understood, routine, conventional activity*'-criterion is of universal PE-problem-solving capacity(???) – to stereotypically repeat this string of vague terms more than 30 times on only 4 pages. It thus concedes the non-understandability of this string's meaning, yet does not state this truth – as Andrei Iancu did. It hence is incapable of providing any PE-problem-solving guidance (as just shown by the quoted reasons), thus dragging its readers onto a wrong track – already proving to be disastrous<sup>[457,459]</sup>.

With the emergence of ETCIs, i.e. long before any §101-guideline, the §101-problem started fooling/discouraging many excellent inventors and investors – the two most important parties in patent business – through the unpredictability of ETCIs' SPL precedents, i.e. their felt inconsistency, more recently amplified by the outrageous BR<sup>[270ftn2a)]</sup>. It thus increased the 101-chaos to a by now really disastrous extent.<sup>[270ftn2c)]</sup>

The FSTP-Project's Reference List (Version of 17.07.2018)

Most of the FSTP-Project papers below are written in preparation of the textbook<sup>[182]</sup> – i.e. are not fully self-explanatory independent of their predecessors. WARNING: Some of the final entries in the FSTP-Project's Reference List are here slightly incorrect – the author is begging your pardon for any inconvenience!

[2] AIT: "Advanced Information Sciences & Technologies" or "Artificial Intelligence Technology", denotes cutting edge IT areas, e.g. Knowledge Representation(KR)/ Description Logic (DL)/ Natural Language (NL)/ Semantics/ System Design/... just as MAI & MKR: "Mathematical Artificial Intelligence & Mathematical Knowledge Representation", the resilient fundament of AIT and "Facts Screening/Transforming/Presenting, FSTP"-Technology, both developed here. — currently much of it still in a status nascendi<sup>[182]</sup>

[5] S. Schindler: "Math. Modeling SPL Top-Down vs. Bottom-Up", Yokohama, 2012<sup>1</sup>

[9] a. S. Schindler, "Patent Business – Before Shake-up", 2013<sup>1</sup>.  
b. S. Schindler, "Patent Business – Before Shake-up", 2015<sup>1</sup>.  
c. S. Schindler, "Patent Business – Before Shake-up", 2018, to be publ. in July 2018.

[64] B. Wegner, S. Schindler: "A Mathe. Structure Modeling Inventions", Coimbra, CIMC-2014<sup>1</sup>.

[69] USSC, Transcript of the oral argument in *Alice Corp. v. CLS Bank*, 31.03.2014<sup>1</sup>.

[91] B. Wegner, S. Schindler: "A Math. KR Mod. for Claim Inter. & Con.", in prep.

[113] S. Schindler: "The CAFC's Rebellion is Over – The USSC, by *MajorBiosig/Alice*, ...", publ. 07.08.2014<sup>1</sup>.

[130] G. Frege: "Funktion und Begriff", 1891.

[157] USPTO: "2014 Int. Guidance on Pat. Subj. M. Eli. & Examples: Abs. Ideas"<sup>1</sup>.

[160] S. Schindler: "The USSC *Myriad/Myriad Alice* Decisions, The PTO's Implementation by Its IEG, The CAFC's *DDR & Myriad* Recent Decisions", publ. 14.01.2015<sup>1</sup>, its short version<sup>1</sup>, and its PP presentation at USPTO, 21.01.2015<sup>1</sup>.

[182] S. Schindler: "Innovation Theory and Mathematical AI Based Patent Technology", Textbook, in prep.

[218] B. Russel: "Principles of Mathematics", see also Wikipedia.

[278] a.) D. Parnas: Personal Communications, Berlin, 1975.  
b.) D. Parnas: "Software Fundamentals", ADDISON-WESLEY, 2001.

[296] S. Schindler: "A Com. on the 2016 IEG Update – Suggesting More Scrutiny", publ. on 09.06.2016<sup>1</sup>.

[313] a.) Wikipedia: "First-order logic", b.) Wikipedia: "Prädikatenlogik", c.) Wikipedia: "Analytic Philosophy", d.) Wikipedia: "D. Parnas".

[314] J. Duffy: "Counterproductive Notice in Literalistic v. Peripheral Claiming", U. of Virginia, June 2016<sup>1</sup>.

[326] H. Burkhardt, B. Smith: "Handbook of Metaphysics and Ontology", Philosophia Verlag, Munich, 1991.

[332] S. Schindler: "The Notion of Claiming in SPL – pre&post Aufklärung", p. 10.10.2016<sup>1</sup>

[335] T. Kuhn: "The Structure of Scientific Revolutions", UCP, 1962, see also Wikipedia

[348] B. Wegner: Invited paper, "Innovation, knowledge representation, knowledge management and paper, "Math. Modelling class. math. thinking", Corfu, Ionian University, 22.11.2016<sup>1</sup>

[349] B. Wegner: Invited paper, "Robust Claim Interpretation and Claim Construction for an ETCI, - Steps of a "Mathematical Theory of Innovation", Bangkok, ICMA-MU, 17.-19.12.2016<sup>1</sup>

[350] S. Schindler: "The IES Qual. Machine: Prototype Demo", GIPC, New Delhi, 11.-13.01.2017.

[351] B. Wegner: "FSTP – Math. Assess. of ETCIs' Quality", GIPC, New Delhi, 11.-13.01.2017<sup>1</sup>

[352] D. Schoenberg: "The IES Prototype Qualif. Machine", GIPC, N. New Delhi, 11.-13.01.2017<sup>1</sup>

[353] S. Schindler: "The Lesson to be Learned from the US PE Hype", publ. 11.12.2016<sup>1</sup>

[354] S. Schindler: "An Amazing SPL Cogn.: Any Pat. Appl. is Draft. Tot. Rob.", publ. 31.01.2017<sup>1</sup>

[355] S. Schindler: "An Ama. SPL Cogn.: Any Pat. Appl. is Draft. Tot. Rob.", publ.07.03.2017<sup>1</sup>

[361] J. Straus: "IPRss and Bioeconomy", Journal of IP Law&Practice, 14.07.2017

[362] USPTO/PTAB: *Ex parte* Schulhauser, 2016<sup>1</sup>

[364] S. Schindler: "The PTAB's Schulhauser Dec. is Untenable", publ. 08.03.2017<sup>1</sup>

[367] P. Michel: "The Current Patent Landscape in the US&Abroad", USPTO, 09.-10.03.2017<sup>1</sup>

[371] Wikipedia: a.) "DSL", b.) "Compiler", c.) "BNF", d.) "Analytic Philosophy", e.) "Axiomatization", f.) "Memory", g.) "Prion".

[372] S. Schindler: "IDLs & KRs, and Easily Drafting&Testing Patents for Their Total Robustness", publ., 16.05.2017<sup>1</sup>

[374] Justice Thomas: Friendly Comment, 04.12.2015<sup>1</sup>

[376] AIPLA: "Legislative Proposal and Report On Patent Eligible Subject Matter", 12.05.2017<sup>1</sup>

[383] B. Stoll: "101 in the Future", AIPLA, 17.05.2017<sup>1</sup>

[388] USSC, Decision in *Heartland v. Kraft*, 22.05.2017<sup>1</sup>.

[390] S. Schindler: "The Recent AIPLA Meeting's ... \$101-Guidelines ...", publ., 14.06.2017<sup>1</sup>

[391] S. Schindler: "ANNEX<sup>[391]</sup> to<sup>[391]</sup> – Trivializing & Semi-Automat. ETCIs' SPL-Satisf.-Tests<sup>[391]</sup>

[394] S. Schindler: "IDL & Knowledge Rep.s", IRRP'17, Orlando, 08.-11.07.2017.

[395] S. Schindler: "IDL & Knowledge Rep.s", IKE'17, Las Vegas, 17.-20.09.2017.

[396] S. Schindler: "IDL & KR's", GCKE-2017, Qingdao, 19.-21.09.2017.

[397] CAFC, Decision in *ARIOSA v. SEQUENOM*, 12.06.2015<sup>1</sup>.

[400] S. Schindler: "MEMO: Sequenom – An Incomplete Interp. of §101/Alice by the CAFC, Sequenom's PFC Misses the Point, USSC's Den. Con.", 17.07.2017<sup>1</sup>

[406] S. Schindler: "The PE-Theorem, FSTP-Test, and the US Innovation Economy. ...", publ. 01.08.2017<sup>1</sup>

[407] USPTO: "PATENTELIG. SUBJECT MATTER: REPORT ...", 25.07.2017<sup>1</sup>

[410] tbd:

[414] L. Fischer: "S.M Eligibility", BCBCP Partnership Meeting, 02.08.2017<sup>1</sup>

[415] S. Schindler: "The USPTO's §101/Biotech WS: Its PE-Test is Too Vague ...", 12.09.2017<sup>1</sup>

[420] CAFC, Decision in *Visual Memory*, 15.08.2017<sup>1</sup>

[422] C. Shannon "A Mathematical Theory of Communication", 1948.

[423] S. Schindler: "The CAFC's BiotechPE-Deicions – Reconsidered for the R&D-Investor Community", publ.15.10.2017<sup>1</sup>

[424] P. Michel: Comment on the BRI and Consistency, at recent Congressional hearing<sup>1</sup>.

[425] N. Kelly, USPTO, 25.09.2015<sup>1</sup>

[426] L. Fischer: "IP & Diagnostic Symposium", Alexandria, 29.09.2017<sup>1</sup>

[427] H. Sauer: "IP & Diagnostic Symposium", Alexandria, 29.09.2017<sup>1</sup>

[428] W. Woessner: "IP & Diagnostic Symposium", Alexandria, 29.09.2017<sup>1</sup>

[430] E. Haug: "FCBA Global Series – Euro. 2017 Session", London, 25.-26.09.2017

[432] Judge R. Taranto, Judge A. Lourie, Chief Judge S. Prost, Judge J. Reyna: "Discussion with the Judiciary", FCBA Bench & Bar in Dialogue, New York, 4.10.2017

[433] S. Schindler: "An SPL's ETCI is Dig. iff it is Totally-Rob. – Espec. PE. *OilStates*", publ.05.10.2017<sup>1</sup>

[435] P. Leahy, IPAS 2017, Intellectual Property Awareness Summit, 06.11.2017, Chicago

[436] P. Ludwig, AIPLI 2017, Sydney.

[438] USSC, Brief of Federal Respondent (USPTO) in *Oil States Energy v. Greene's Energy*<sup>1</sup>

[439] R. Rader: Pers. Communication, Chicago, 06.11.2017.

[440] S. Schindler: "The Supreme Court's Outer Shell-Specification of an ETCI – Digitizing & Mathematizing It. & The Semi-Automatic FSTP-Tests by the IES of ETCIs for Satisfying SPL– *DDR, Myriad, Sequenom, GTG*. & The German SPL-Precedents Implies the Supreme Court's SPL-Framework – Political Issues.", publ. 20.01.2018<sup>1</sup>

[441] S. Schindler: "O/AEM – An ETCI's 4 Use-Hierarchy-Levels", in prep.

[442] P. Michel: Pers. Communication, Alexandria, 30.08.2017.

[443] D. Schoenberg, J. Schulte, J. Wang, C.Negrutiu, B. Wegner, R. Wetzler, S. Schindler, "The User Interface Design of the IES for Testing an ETCI's Satisfying SPL", 23.01.2018<sup>1</sup>

[444] D. Schoenberg, J. Schulte, J. Wang, C.Negrutiu, B. Wegner, R. Wetzler, S. Schindler, "The IES GUI – A Primer: Using the FSTP-Test, Inhouse Mode", 23.01.2018<sup>1</sup>

[445] B. Wegner: "A Mathematical KR Model for Claim Interpretation and Construction", 23.01.2018<sup>1</sup>

[446] R. Stoll (on IP Watchdog): "Director Andrei Iancu's Act One", 26.11.2017

[448] H. Goddard, J. Straus: Pers. Communication, Berlin, 20.12.2017.

[450] E. Kandel: "Auf der Suche nach dem Gedächtnis.", Random House, 2006.

[451] S. El-Metwally, O. Ouda, M. Helmy: "Next Generation Sequencing Technologies and Challenges in Sequence Assembly", Springer, 2014

[452] CAFC, Decision in *Finjan v. Blue Coat Systems*, 10.01.2018<sup>1</sup>.

[453] S. Schindler: "AI and US & German SPL will Boost R&D-Investments", publ.19.04.2018<sup>1</sup>

[454] CAFC, Decision in *EXERGEN*, 08.03.2018<sup>1</sup>

[455] MPEP-2018, 25.01.2018

[456] S. Schindler: "Short AI Comment on MPEP2018\_SECT2106 – NO IMPROVEMENT.", publ. 26.02.2018<sup>1</sup>.

[457] B. Wegner, S. Schindler, et al.: "Mathematizing Any Rationalized ETCI", in prep.

[458] S. Schindler: "Comment on the Absurdity of §101 in MPEP-2018\_Sed2106.", 16.03.2018<sup>1</sup>.

[459] S. Schindler: "Andrei Iancu's Promises of More Certainty in USPTO's PE-Decisions – Hope- or Harmful?", publ. 03.05.2018<sup>1</sup>

[460] USSC, Decision in *Oil States*, 24.04.2018<sup>1</sup>

[461] USSC, Decision in *SAS INSTITUTE*, 24.04.2018<sup>1</sup>

[465] J. Matal: Opening Keynote, BIO's IPCC 2018, New Orleans, 11.04.2018.

[466] A.Iancu: "Role of US Patent Policy in Domestic Innovation and Potential Impacts on Investment.", AmCham, 11.04.2018<sup>1</sup>.

[467] CAFC, Decision in *VANDA*, 13.04.2018<sup>1</sup>

[468] S. Schindler: "Andrei Iancu's Further Pub. Discuss. about USPTO's Serv.", publ. 11.05.2018<sup>1</sup>

[469] USPTO's NPRM concerning the BRI.<sup>1</sup>

[470] S. Schindler: "USPTO's Berkheimer PE-Guideline Talks the US Patent Community onto a Wrong Track and A Question – not asked – as to USPTO's DataBase-Searching for Patent(-Application)s, this communication, publ.19.06.2018; REMAKE publ.06.07.2018<sup>1</sup>

[471] A. Iancu: at the USPTO/APPC meeting in Alexandria, 03.05.2018

[472] J. Manno, K. Parendo: "Demonstration: USPTO Search Tools", USPTO, 03.05.2018<sup>1</sup>.

[473] A. Iancu: at the AIPLA meeting in Seattle, 15-17.05.2018.

[474] R.Bahr, USPTO, MEMORANDUM (as to Berkheimer), 19.04.2018<sup>1</sup>

[475] B. Goodlatte, Chairman of the Judiciary Committee: "Goodlatte Statement at USPTO Oversight Hearing", 22.05.2018<sup>1</sup>

[476] A. Iancu: "Oversight of the USPTO", before the Committee on the Judiciary, US House of Representatives", 22.05.2018<sup>1</sup>

[477] S. Schindler: "Rationality Returns in the US SPL-Drama – it now has a White Knight", 21.06.2018<sup>1</sup>

[478] A. Iancu: "Remarks delivered at the AEI", 21.06.2018<sup>1</sup>

[479] S. Schindler: "Summary of the FSTP-View at the BRI", publ.09.07.2018.

[480] S. Schindler: "The PE-Guidelines Drove the US NPS into PE-Misery – What is its Ideal Fixing Today?", this paper, publ.17.07.2018.

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