Patenting vs. Copyrighting vs. Trademarking APIs ─ in Mathematical AI View.

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This mail[603] focuses on no IPR court decision[1.a)] about an 'interface'/'API'[b)], but on such ETCIs' (n)PE and/or (n)CRE[c)]. It shows by mathematical AI ─ i.e. by mathematical AI's view at SPL and SCRL ─ that an ETCI's conjunctive [IT]interface ●is a priori PE, and ●may be CRE, if it is PE, too[2.c)].

To begin with: The [PE]AI- alias FSTP-Test in the box is recapped[e)] from[596]. The [rat]KR of the specification of the ETCI ─ being an interface ─ is as usually provided by CBN(ETCI)[2.a)]. Passing this FSTP-Test by an ETCI ─ e.g. an [n]PE TT0 with its application alias interface ─ is necessary & sufficient for its being PE. [495,508,596]

Claim Interpretation, CI: <input::= CBN(ETCI) in [ISL]KR, output::= CBN(ETCI) is correct>   & begin:

1) if [CBN(ETCI) is factually {O-crC0n ::= (($\wedge^{1 \le n \le Kn}$E-crC0kn)$\wedge$ncrC0n) $\wedge$($\Sigma^{1 \le n \le N}K_n$=K))/ $1 \le n \le N$} $\wedge$(E-CRTS[d] =(-complete$\wedge$-correct$\wedge$-definite)]   then go on;

2) if [O-inC0n, $\forall 1 \le n \le N$ are ex- or implicitly lawfully_disclosed]   then go on;

3) if [O-crC0n, $\forall 1 \le n \le N$ are ex- or implicitly enablingly_disclosed]   then output 'CBN(ETCI) is correct'   & stop.

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Claim Construction, CC: <input ::= CBN(ETCI) is correct, output ::= CBN(ETCI) is PE>   & begin:

4) if [CBN(ETCI) comprises an [n]PETT0 comprising an E-xcrC]   then go on;

5) if [CBN(ETCI) comprises an application of [n]PETT0]   then go on;

6) if [CBN(ETCI) comprises an $\in$E-crCS[ETCI\TT0] basically independent over E-crCS[TT0]]   then go on;

7) if [CBN(ETCI)'s application uses/needs [n]PETT0 $\wedge$ (CRTS $\subseteq \Pi^{1 \le n \le N} \wedge^{1 \le n \le Kn}$ E-crC0kn)]   then output 'CBN(ETCI) is PE'   & stop.

Legend: As indicated already in[596ftn2.c)], lines 1 & 7 of the FSTP-Test (in [rat]KR) define resp. check the CRTS of the ETCI ─ also if it is an interface[b)]. The here clarifications of wordings of[596] eliminate immaterial omissions in ETCI's CI- and CC-conditions ─ also note the next line.
NOTE: The for all ETCIs in FSTPtech specification same E-crC0[N+1], namely 'T', is omitted as stereotype: This is the '**inventive *Alice* concept**', indicating the novelty of an ETCI as in *Myriad* by the Supreme Court decided, whereby neither the TT0 nor the application need to be novel.

An interface is by its definition[b)] an ETCI ─ yet, its size is potentially huge, as in[599]. This is no problem, if it is a conjunction of '**subETCIs**' (i.e. of FFOL predicates[e.g.599] over its E-crCS)[2.a)]. Then PE($\Sigma^{1 \le j \le J}$ CBN(ETClj)) => PE(CBN(ETCI)). This is easily shown by contradiction proofs[182]. Thus, the latter conjunction's consequence is correct.

1.a ─ as e.g. in *Google vs. Oracle*[599-601], pending before the Supreme Court ─ here only used for instantiations of the math. AI's '**views**'[2.a)].

.b By definition, in SPL an '**interface**' alias 'API' is an ETCI, i.e. an '**nPE invention TT0**' and its '**application**'. It is PE[596], if it passes also test6&7.

.c (n)CRE & (n)TME abbr. '**(n)copyright-eligibility**' and '**(n)trademark -eligibility**'.[2.a)]

.d The '**scope(ETCI)**'[FSTP] is defined by its "**concept realization tupel set, CRTS(E-crCS)**'[495]. I.e., scope(ETCI) is a given set {$\forall$ <e1,...,ek,...,eK> / ek$\in$TSk$\ne\Phi$, $1 \le k \le K$}, with given '**truth set k, TSk $\subseteq$ domain(E-crCk)**', $1 \le k \le K$, and $\Phi \ne$E-xcrCS$\subseteq$ E-crCS in [n]PETT0. Accordingly, there is a big difference as to its CRTS between a [BIO]ETCI and an [IT]ETCI. Today always is assumed |[BIO]CRTS| =1 for any [BIO]ETCI, even if different occurrences of a DNA or its gene comprise different numbers of genes resp. nucleotides[604,182].

By contrast, for an [IT]ETCI and its (unique) CBN[FSTP] holds |[IT]CRTSI=$\Gamma \ge 1$*,* with Γ denoting the minimal number of disjoint classes of non-equivalent implementations of this CBN(ETCI), and a class is defined as the set of all equivalent implementations of this CBN(ETCI). Thereby 2 implementations are "**equivalent**" iff the difference between them is smaller than γ ─ being a given threshold for their difference (of a given 'measure function'[182]).

Today, patent(application)s don't know the CRTS ─ what holds in test1 & test7, too. This implies that any [IT]ETCI granted is potentially threatened by preemption, unless |[IT]CRTS| =1, in this case impossible to guarantee. This is an SPL gap easily to bar in any patent application.

.e This FSTP-Test recap is simplified by considering ETCIs only in [rat v mat]KR, abbr. by just '**KR**' (i.e. by using, for proving the mathematicity of this test, only a part of the SMP reasoning introduced in[596] ─ which in today's business is anyway always assumed).

Another aspect involved: The SMP reasoning in[596] is based on Locke/Hume/Berkeley/Kant/Frege/…../Kuhn. Yet, this by the author from their thoughts derived SMP has hitherto never been practiced in Mathematics: Their thoughts are used only as far as 'their spirit' serves the needs of the FSTP-Test. He thus limits their thoughts to only the very basic aspects needed by SMP, i.e. all complexity causing notions are excluded, e.g. 'unidentifiable', 'inseparable', 'uncountable', '…', 'induction', and 'infinitely'.

I.e.: The FSTPtech's SMP has been derived a posteriori, after the problem needing mathematization has been specified and then for only meeting this problem's needs ─ as shown in[596] ─ not the other way around, i.e. first developing a new MP° platform for enabling mathematizing a broad range of issues in the hope that MP° enables many issues' clean mapping by MP° into Substantive° Mathematics ('SM°'). By contrast: Given the SPL and its Supreme Court's SPL-framework interpretation, the [SPL]SM ─ for brevity: 'SM' ─ comprises any ISL expression (alias '[SPL]ISL expression'). Many such [(SPL)]ISL expressions have been shown/used in many preceding FSTP mails. In the future, for any ET of name 'xyz::= BIO, DNA, CRISPR, IT, TC, …..' the respective ISL[xyz] dialect would be used for further facilitating any patenting business of [xyz]ETCIs.

The following mathematical AI view[2.a)] at SPL vs. SCRL and vs. STML discloses, for the two latter substantive laws, that they ●have not been notionally refined by the Supreme Court as it did with SPL by its line of framework decisions ─ while all 3 substantive IPR protection laws are tightly related by IPR's pragmatics[b)] ─ and hence ●still suffer from the vagueness (in an ETCI's SCRL or STML needs) that had plagued ETCIs' as to SPL needs. The Supreme Court terminated this SPL-problem by reinterpreting it by its notional refinement such that an ETCI that passed the SPL-satisfiable-test ─ the [SPL]AI- alias FSTP-Test ─ is 'totally robust'[FSTP]. Concerning the SCRL and STML, their analogous reinterpretation would contradict the CAFC interpretation(s)[c)].

In IT System Design[2], an '**IPR system**, **IPRS**' providing an SPL-, an SCRL-, and an STML-service to the resp. ETCIs needing them, would be structured by them. These services would provide to the [SPLvSCRLvSTML]ETCIs 3 pragmatically 'homogenous' but semantically totally different from each other semantics, namely the 3 commercially most important ETCI semantics: An ETCI's needed 'application' semantics (based on its 'framework-SPL'), its needed representation semantics (based on SCRL), and its needed marketing semantics (based on STML).

The view of mathematical AI (in 'System Design KR') at the structure of the 3 components of the '**substantive IPRS, SIPRS**' ─ i.e. at SPL, SCRL, and STML ─ for outlining, what interpretation by notional refinement of SCRL and STML were needed for achieving a consistent perception of SIPR. This view would render SCRL and STML ─ in their own semantics ─ as transparent as SPL is already.

This holds under the precondition that an ETCI defined under SCRL or STML is also defined and PE under SPL, as otherwise the SCRL- res. STML-definition were void ─ due to the definition of test1 & test4-7 of the FSTP-alias [SPL]AI-Test. I.e. the current SCRL and STML are based on 'blue skies' premises. The above rational analysis shows that they are pure wishful thinking that the Supreme Court also should terminate.

Historically, and also today, IPR needs are '1-dimensional', not '3-dimensional', i.e. in any protection case hitherto invoked, only one of the 3 above separated 'protection semantics' is needed by an ETCI. The current IPR thinking would be dramatically strengthened ─ as above outlined ─ if this 'blue skies' phantasmagoria were terminated.

Excerpt from the FSTP-Project's Reference List (as of 23.03.2020).

Many FSTP-Project mails, including this one, are written in preparation of the textbook[182] – i.e. are not self-explanatorily or independent of other FSTP-mails.

[182] S. Schindler: "Basics of Innovation Theory & AI Based Patent Technology", Textbook, in prep.
[495] S. Schindler, B. Wittig: "*UC*'s vs. *Broad*'s CRISPR Patents …", Part III, publ. 30.01.2019[*)]
[504] USPTO: The 2019 §§ 101&112 Guidelines, 07.01.2019[*)]
[508] S. Schindler, B. Wittig: "The [SPL]AI-Relation of 'Application-Controlled ETCIs, [AC]ETCIs', Part V", pub. 18.02.2020,
[552] S. Schindler: "CAFC's Anew Legal Errors in … Need Supreme Court Clarification.", publ.15.10.2019[*)]
[566] USPTO: The 2019 § 101 October PE Guideline, 18.10.2019[*)]
[573] S. Schindler: "An Unnoticed AI Requ. Met by the Supreme Court's PE Philosophy ...", pub. 09.12.2019[*)]
[575] B. Wegner, B. Wittig, S. Schindler, C. Negrutiu, D. Schönberg, J. Schulze, R. Wetzler: "Mathematically Modeling the Meaning of FSTPtech Specifications of ETCIs", in prep.
[576] S. Schindler:"The '[AISPL]–test mod(SPL) ≅ FSTP-Test' is the Strong PE-Test ∀ ETCIs ", pub 03.01.2020[*)]

[586] S. Schindler: "AI-testing an ETCI Warrants Much Better Information than its PE-Test ", pub. 09.01.2020[*)]
596] S. Schindler: "AI Facilitates Testing ∀ ETCI for PE & PA ─ Automat. or by AI-Theorem"", pub. 10.03.2020[*)]
[598] Max Planck Institute: "On the Draft Issues Paper of the WIPO on IP Policy and AI, 11.02.2020
[599] CAFC: *Oracle* vs *Google*, 27.3.2018
[600] Google`s Cert. Petition to the USSC in *Google* v *Oracle*, 24.6.2019, granted on 15.11.2019
[601] USDoJ's Amicus Brief to the USSC in *Google* v *Oracle*, 27.9.2019
[602] B. Wittig, S. Schindler, B. Wegner: "A first Mathemat. Specification of the COVID Virus", in prep.
[603] S. Schindler: "Patenting / Copyrighting / Trademarking APIs ─ in Mathe. AI View", publ. 26.03.2020[*)].

*) The complete FSTP Ref. List & ∀ documents on www.FSTP-expert-system.com

[2].**a** A Math. AI's view[1.a)] alias '**premiss**'[b)] of any ETCI is that it is of FFOL. Then it is transformable into its conjunctive normal form.

.**b** The common pragmatics of ETCIs created under SPL, SCRL, and STML is defined as their protection of individual IPRs in such [SPLvSCRLvSTML]ETCIs[c)].

.**c** But the USC cannot bar this common interpretation of SPL, SCRL, and STML ─ SPL defined by the Supreme Court's framework ─ by requiring properties of [SCRL]ETCIs or [STML]ETCIs (which may exist!) that are not needed by [SPL]ETCI.