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## US Patent Practice Drifting Toward Approach Prevalent Abroad

Law360, New York (February 17, 2017, 12:01 PM EST) -- This article begins by summarizing the problem-solution approach to patent drafting and examination prevalent in many major economies outside the U.S., and then elaborates on how various recent decisions by the federal courts encourage U.S. patent prosecutors to adopt such an approach. We conclude with a discussion of the key implications of those decisions for patent drafters.

### The Problem-Solution Approach in Major Economies Outside the U.S.

This section discusses the problem-solution approach to patent drafting and examination adopted in Europe, Australia, China and Japan.

#### Europe

The European Patent Office requires an invention to have an “inventive step” in order for the invention to be patentable.[1] In order to assess the inventive step in an objective and predictable manner, the EPO states that a problem-solution approach should be applied.[2] In the problem-solution approach, there are three main stages: (1) determining the closest prior art, (2) establishing the objective technical problem to be solved, and (3) considering whether or not the claimed invention, starting from the closest prior art and the objective technical problem, would have been obvious to the skilled person.[3]



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#### Australia

In Australia, as in Europe, a patent application must have an “inventive step” in order to be patentable. The evaluation of this inventive step invites a “problem solution” analysis. “[For an] assessment of inventive step[, t]he initial consideration [is] whether a claim is obvious[. This consideration] can be coloured by [among other things]: ex post facto analysis ... An approach used by the courts to avoid ex post facto analysis is the ‘problem-solution’ approach. ... The ‘problem-solution’ approach is ... the preferred one to apply when considering inventive step.”[4]

#### China

Per the State Intellectual Property Office’s English translation of the Chinese patent laws and guidelines for patent examination, “[i]nventions mean new technical solutions proposed for a product.”[5] “Inventions ... for which patent rights are to be granted shall be ones which are ... creative.... Creativity means that, compared with the existing technologies, the invention possesses prominent substantive features and indicates remarkable advancements.”[6] A patent application includes “prominent substantive features” when it addresses the technical problem actually solved, which refers to “the technical task in improving the closest prior art to achieve a better technical effect.”[7]

#### Japan

Japan likewise favors a problem-solution approach to patent examination. From the Japan Patent Office's materials:

[T]he Patent Act ... requires stating in the detailed description of the invention 'matters necessary for a person ordinarily skilled in the art to which the invention pertains to understand the technical significance of the invention' such as the problem to be solved by the invention and its solution so that the nature of the technical contribution realized by the invention can be understood.[8]

## **Recent U.S. Court Cases Encourage a Move Toward the Problem-Solution Approach**

In the United States, the law governing whether the claims of a patent application are valid under 35 U.S.C. § 101 is in flux. Particularly in the context software patents, courts are still attempting to establish the contours of the § 101 analysis in the wake of the U.S. Supreme Court's Alice[9] decision, which renewed the vitality of § 101 as a tool for patent invalidation in litigation and established a test for determining §101 validity. Under the Alice test, a patent claim is valid when:

- (1) the claim is directed to an idea other than an abstract idea, or
- (2) if the claim is directed to an abstract idea, when the claim nevertheless includes an inventive concept that ensures that the patent amounts to significantly more than a patent on the ineligible abstract idea itself.[10]

As § 101 jurisprudence continues to develop post-Alice, many recent cases suggest that adopting a problem-solution approach, analogous to those outlined above with respect to Europe, Australia, China and Japan can provide at least some help to patent prosecutors in trying to overcome rejections under 35 U.S.C. § 101 and in drafting new applications. Presented below are some of those cases.

### ***Enfish***[11]

In *Enfish*, the Federal Circuit noted, as part of its rationale in upholding claim validity that "the claims are directed to a specific implementation of a solution to a problem in the software arts. Accordingly, we find the claims at issue are not directed to an abstract idea." [12]

The *Enfish* opinion supported its holding by invoking the specification's disclosure of the technical problem overcome by the claimed invention (an improvement to database functionality) — a parallel (even if unacknowledged) with the prevailing standards abroad.[13]

### ***DDR Holdings***[14]

In this case, the Federal Circuit ruled that the claims in dispute were not abstract because those "claims address[ed] the problem of retaining website visitors that, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be instantly transported away from a host's website after 'clicking' on an advertisement and activating a hyperlink." [15]

The crucial language of the *DDR Holdings* opinion, reproduced below, adverts to the invention being patent-eligible as a result of "overcoming a problem" in a specific technological context:

But these claims stand apart because they do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.[16]

This case drew a crucial distinction between the solving of a "problem specifically arising in the realm of computer networks" and Alice's statement that "recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible." [17] In other words, a limitation of an intrinsically abstract business method or other abstract idea to a technological environment cannot preserve validity, but the solving of a problem intrinsic to a specific technological environment in

the first place — even a solution that may have some abstract characteristics — is much more likely to be found valid under § 101 (see, e.g., *McRo*,<sup>[18]</sup> in which vector modifications “as a function of” certain inputs were held to be valid despite the fact that the function itself was not claimed).

### ***Bascom***<sup>[19]</sup>

The Federal Circuit ruled in this case that a challenged patent for internet content-filtering was directed to an abstract idea, but nevertheless held that, because the challenged patent clearly recited the improvement it offered as a solution to a problem in the art, it was valid.

The defendant argued that the challenged claims were directed to the abstract idea of filtering content, and the Federal Circuit agreed.<sup>[20]</sup> Applying the *DDR Holdings* analysis, the Federal Circuit held that because various recitations of generic computer components were not, and were not claimed to be, novel or inventive, the claims were not rendered non-abstract by their application to a computer-specific domain, stating that “[a]n abstract idea on ‘an Internet computer network’ or on a generic computer is still an abstract idea.”<sup>[21]</sup>

Nevertheless, the Federal Circuit upheld the patent’s validity, stating that, like the patent of *DDR Holdings*, the challenged patent disclosed and claimed a technical solution to a technical problem, even if the claims made use of elements that were not themselves technically novel.<sup>[22]</sup>

### ***District Court Cases***

District courts, in addition to the Federal Circuit, have also performed — in *Motio*,<sup>[23]</sup> *ContentGuard*,<sup>[24]</sup> *Mobile Telcoms.*,<sup>[25]</sup> *Amdocs*<sup>[26]</sup> and *Wavetronix*,<sup>[27]</sup> among many others — a problem-solution analysis when entertaining §101 challenges. Just as in the various problem-solution jurisdictions abroad, these cases considered the patent specification and its recitation of the problem for which the challenged claim offered a solution for the salvation of the patent under § 101.<sup>[28]</sup>

## **Implications of the Post-Alice Landscape for Patent Applicants and Practitioners**

The emphasis of the above-discussed post-Alice cases on technical problems and technical solutions thereto shows that a problem-solution standard similar to that already prevalent in non-U.S. jurisdictions is seeing express endorsement by U.S. courts adjudicating § 101 challenges. This endorsement stands to narrow the gap between the description recommended to be disclosed in a U.S. application and the disclosure advisable for many foreign jurisdictions. This convergence offers many advantages.

When an application is filed in a foreign jurisdiction after filing domestically, the original disclosure is usually not modified because it may lack original support for modifications even when the modifications may be desirable according to the laws of the foreign jurisdiction. Such a lack of desirable content in the foreign application can result in time-consuming prosecution. However, the narrowing of the disparity between the requirements in the U.S. and other major economies obviates — or at the very least minimizes — original support issues in foreign applications, thereby easing foreign prosecution. This ease in foreign prosecution directly translates to expedited allowances and reduced prosecution costs abroad, ultimately saving time and money for applicants seeking wider coverage after a U.S. filing.

The problem-solution standard does require that applicants explain the problem and solution with high specificity in the application. The standard thus most benefits those who are in possession of an implementation of their invention or know exactly how the implementation is to be implemented. Those facing the most challenges under the problem-solution approach are those not yet in possession of a workable implementation of their invention and therefore not in a position to give as comprehensive a disclosure as suggested by the above-mentioned cases.

To the extent that the problem-solution paradigm’s ascendancy in the U.S. court system brings the U.S. patent system into greater alignment with the patent standards of other jurisdictions, it should reduce uncertainty in litigation and costs in prosecution, and on these grounds ought to be

welcomed as a positive development in the U.S. patent practice.

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[1] EPO's Guidelines for Examination, Part G, Chapter VII, paragraph 5 ("EPO Guidelines").

[2] EPO Guidelines.

[3] EPO Guidelines, G-VII, § 5.1, 5.2, 5.4 and 4.

[4] The Australian Patent Manual of Practice & Procedure, § 2.5.1.6A (February 1, 2013).

[5] Article 2 of the Chinese patent law.

[6] Article 22 of the Chinese patent law.

[7] Chinese Guidelines for Patent Examination, Part II, Chapter 4, Section 3.2.1.

[8] Guidelines by the Japan Patent Office ("JPO"), Part II, Chapter 1, Section 2 (citing Article 24bis of the Regulations under the Patent Act).

[9] Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 134 S. Ct. 2347 (2014).

[10] Id. at 2355.

[11] Enfish, LLC v. Microsoft Corp., 822 F.3d 1327 (Fed. Cir. 2016).

[12] Id. at 1339.

[13] Specifically, the Enfish court noted that its "conclusion that the claims are directed to an improvement of an existing technology is bolstered by the specification's teachings that the claimed invention achieves other benefits over conventional databases, such as increased flexibility, faster search times, and smaller memory requirements." Id. at 1337

[14] DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245 (Fed. Cir. 2014).

[15] Id. at 1257.

[16] Id.

[17] Id. at 1256 (citing Alice, 134 S.Ct. at 2358).

[18] McRo v. Bandai Namco Games Am. Inc., 837 F.3d 1299 (Fed. Cir. 2016).

[19] Bascom Global Internet Srvs. v. AT&T Mobility LLC, 827 F.3d 1341 (Fed. Cir. June 27, 2016).

[20] Id. at 1348.

[21] Id. at 1348.

[22] Id. at 1351 (internal citations omitted).

[23] Motio, Inc. v. BSP Software LLC, 154 F.Supp.3d 434 (E.D. Tex. Jan. 4, 2016).

- [24] ContentGuard Holdings, Inc. v. Amazon.com, Inc., 142 F. Supp. 3d 510 (E.D. Tex. 2015).
- [25] Mobile Telcoms. Techs., LLC v. Leap Wireless Int'l, Inc., No. 2:13-cv-885-RSP, 2015 U.S. Dist. LEXIS 127265 (E.D. Tex. Sep. 23, 2015).
- [26] Messaging Gateway Sols., LLC v. Amdocs, Inc., Civil Action No. 14-732-RGA, 2015 U.S. Dist. LEXIS 49408 (D. Del. Apr. 15, 2015).
- [27] Wavetronix LLC v. Iteris, Inc., No. A-14-CA-970-SS, 2015 U.S. Dist. LEXIS 6993 (W.D. Tex. Jan. 21, 2015).
- [28] Motio, 154 F.Supp.3d at 440; Motio, 154 F.Supp.3d at 440-41; ContentGuard, 142 F. Supp. 3d. at 515; Mobile Telcoms., No. 2:13-cv-885-RSP, 2015 U.S. Dist. LEXIS 127265, at \*11-12; Amdocs, Civil Action No. 14-732-RGA, 2015 U.S. Dist. LEXIS 49408, at \*15-16; and Wavetronix, No. A-14-CA-970-SS, 2015 U.S. Dist. LEXIS 6993, at \*17-18.

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