

The Fed. Circ. In May: The Printed Matter Doctrine's Scope

By **Jeremiah Helm and Sean Murray** (May 30, 2024)

*This article is part of a monthly column that highlights an important patent appeal from the previous month. In this installment, we examine the Federal Circuit's recent ruling in *Ioengine v. Ingenico*, and what the decision means for the printed matter doctrine.*

This past month the U.S. Court of Appeals for the Federal Circuit issued a precedential opinion in *Ioengine LLC v. Ingenico Inc.*

An unusual issue in *Ioengine* addresses the scope of the printed matter doctrine as applied to transmitted data or program code.

Certain printed matter is inherently unpatentable and cannot accord patentable weight to an otherwise old invention.

It is understood that words, like mental steps or laws of nature, fall outside the scope of patentable subject matter unless there is a functional relationship between the printed matter and the substrate on which that printed matter is placed. A few examples illustrate the bounds of the doctrine.

One case from the late 1960s involved a measuring spoon designed to easily measure ingredients when making half a recipe. The spoon eliminated the need to calculate half-amounts of the ingredients by including volumetric indicia that were, in fact, different from the volume being measured.

Thus, a half-recipe spoon would say it was 1 cup, but would instead have a volume of half a cup. Although the spoon itself was old, and the printed matter not itself patentable, the combination of the two created a new functional relationship that was held patentable.

In contrast, if the claim is effectively to the content of the printed matter itself, without any new functional relationship, then the printed matter is not entitled to any patentable weight. A more recent example of this is a claim to a kit that includes a drug and packaging that indicates how to administer the drug.

Unlike the purposely inaccurate measuring spoon, which created a new functional relationship that made cooking easier, adding instructions to a known product does not create a functional relationship between the product and words. Otherwise, merely changing the instructions would refresh the patent term for an old drug.

The printed matter doctrine thus runs both ways. The doctrine prevents patenting otherwise unpatentable subject matter by appending it to an object. The doctrine also prevents patenting an old object by adding new printed matter to it, unless the result is some new functional relationship between the printed matter and the object.

Similar to the famous 2014 U.S. Supreme Court ruling in *Alice Corp. v. CLS Bank International*, patentability requires a transformative functional relationship between content and substrate. Under *Alice*, a claim directed to patent-ineligible subject matter can add elements and an inventive concept that transforms the claim into patent-eligible subject



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matter.

Indeed, the Federal Circuit has applied Alice to analyze whether a claim that included printed matter was patent eligible and explained that a claim may be found patent ineligible under Section 101 if it is directed solely to nonfunctional printed matter without an additional inventive concept, as shown in *CR Bard Inc. v. AngioDynamics Inc.* in 2020.

Turning back to *Ioengine*, the Patent Trial and Appeal Board determined that two sets of claim limitations ran afoul of the printed matter doctrine. One set required program code to be configured to cause the transmission of encrypted communications.

The board determined that the encrypted communications fell within the scope of the printed matter doctrine because, in the board's view, that limitation was directed to the communicative content.

There was no functional relationship between the encrypted data and the communication carrying it because the claims did not require any use, manipulation or processing of that data. Based on these findings, the board gave the encrypted communications limitation no patentable weight.

A second set of claims required that communication to a network node facilitate the download of program code. The board determined that downloading program code is a communication, and thus within the scope of the printed matter doctrine. The board also reasoned that a claim to downloading program code is directed to the content of the information downloaded, which in the board's view made it printed matter.

As a result, the board explained, a claim to generic downloaded code has no functional relationship with, e.g., the claimed portable device or terminal and thus was not entitled to any patentable weight.

The Federal Circuit disagreed and reversed the board's holding of unpatentability. The court explained that the printed matter analysis involves a two-step test.

First, the court must determine whether the limitation is directed to printed matter. This only occurs if the content of the information is claimed. If so, the second step asks whether the printed matter should be given patentable weight because it has a functional or structural relationship with the substrate.

With respect to the encrypted communications limitations, the court explained that the fact that there is a communication is different from the content of the communication. The claims required no specific content for the communications, and thus could not be directed to the content. Likewise, the requirement that the communication be encrypted relates to the form of the communication, and not its content.

In contrast, the printed matter doctrine is related to what is communicated instead of the act of the communication itself. Because the encrypted communications were not being claimed for any content, the court concluded they were not printed matter.

For the program code limitations, the court again emphasized that there was no informational content claimed and, accordingly, the program code could not be directed to printed matter.

The court also observed that the act of downloading did not transform the program code

into printed matter. The court reversed the board's anticipation determinations for these claims.

The takeaway from *Ioengine* is that the printed matter doctrine must be applied judiciously and specifically where claims are directed to the content of a communication and not to a communication generally.

In this instance, the petitioner in the inter partes review argued for a very broad application of the doctrine. The board adopted the petitioner's position and found anticipation as a result.

But the board's analysis in *Ioengine* would have transformed the doctrine into a broad tool undermining patentability for many claims to transmitting data or communications. In reality, however, the printed matter doctrine is much narrower than the board's application, and can only be relied on when the content of the printed matter is claimed.

Consistent with the long line of cases related to printed matter, when claims are directed to a generic communication, data or computer program the printed matter doctrine does not apply because there is no particular content at issue.

The Federal Circuit's holding thus restores the printed matter doctrine to its status as a relatively narrow part of patent law.

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