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Visual Memory LLC v. NVIDIA Corp.: *Panel-dependency for § 101 Challenges at the 12(b)(6) Stage*

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In *Visual Memory LLC v. NVIDIA Corp.*, No. 2016-2254 (Fed. Cir. Aug. 15, 2017), a divided panel at the Federal Circuit applied an analytical framework that appears to be inconsistent with the framework the Federal Circuit has applied in a number of previous decisions on § 101 motions at the Rule 12(b)(6) stage. In particular, the majority did not require the claims to recite a specific concrete solution, finding instead that functionally-recited claims directed to a computer memory system were patent-eligible at *Alice* step one based on support from the specification. This opinion raises the specter of panel-dependent rather than consistent outcomes at the Federal Circuit on appeals from § 101 determinations.

The *Visual Memory* Decision

Visual Memory involves an appeal from the grant of a Rule 12(b)(6) motion to dismiss under § 101 by the District Court for the District of Delaware. A divided panel reversed, with the majority finding claims reciting a “computer memory system” with a “main memory” and a “cache” connected to a “bus” where a “programmable operational characteristic . . . determines a type of data stored by [the] cache,” to be directed to the technological improvement of “enhanced computer memory,” and thus patent eligible under *Alice* step one. The dissent found the claims to be directed to the abstract idea of “categorical data storage” and believed the majority to have imparted an alleged technological improvement to the claims that was “untethered from the language of the claims.”

Claim 1 of the asserted patent recites:

1. A computer memory system connectable to a processor and having one or more programmable operational characteristics, said characteristics being defined through configuration by said computer based on the type of said processor, wherein said system is connectable to said processor by a bus, said system comprising:

- a main memory connected to said bus; and
- a cache connected to said bus;
- wherein a programmable operational characteristic of said system determines a type of data stored by said cache.



Neither party disputed that the claimed computer components of a processor, memory, cache, and bus were “nothing more than a collection of conventional computing components found in any computer.” However, Judge Stoll, writing for the majority, identified “the use of programmable operational characteristics that are configurable based on the type of processor” as a specific technological improvement recited by the claims. Relying on the specification, the majority explained that the inclusion of programmable characteristics in the processor “that can be tailored for use with multiple different processors without the accompanying reduction in performance,” provided benefits over the prior art.

In dissent, Judge Hughes criticized this approach, finding the claimed “programmable operational characteristic” to be a “purely functional component”—nothing more than a “black box” for performing the abstract idea of storing data based on its characteristic. Because the claims did not recite any specific implementation or limitation on these programmable characteristics, Judge Hughes concluded that the patent required someone else to provide the “innovative programming effort” necessary to implement the claimed “black box” algorithm.

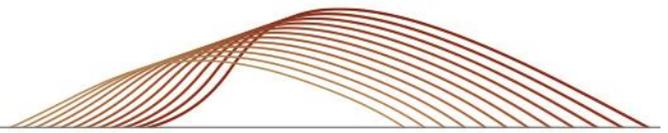
In response, the majority pointed to a microfiche appendix to the patent containing 263 frames of computer code, which the majority interpreted at the Rule 12(b)(6) stage as teaching a person of ordinary skill in the art the “innovative programming effort” necessary to implement the claims. Additionally, although admitting that the underlying concept of “categorical data storage” required a “programmable operational characteristic” that “determines a type of data stored by [the] cache,” the majority asserted that the technical improvement necessary to clear the *Alice* step one hurdle was simply the *concept* of “configuring the memory system based on the type of processor connected to the memory system.”

The dissent remained unconvinced, finding the lack of specificity in the claims and specification supported the notion the claims were directed to an abstract idea. The dissent also noted that the plaintiff, during oral argument, had expressly asserted the claims were not limited by the microfiche. In view of this, the dissent concluded that by relying on the microfiche to justify its determination, the majority had performed an inquiry “untethered from the language of the claim[s]” and allowed the patentee to claim an improvement that “requir[ed] someone else to provide all the innovation.”

Visual Memory’s Tension with Other Federal Circuit Decisions at the Rule 12(b)(6) Stage

A difficulty of majority’s reasoning is its admission that the ability of memory to operate with different types of processors was known in the art (“[P]rior art memory systems possessed the flexibility to operate with multiple different processors.”). Thus, the purported advance recited by the claims—“configuring the memory system based on the type of processor”—relies on and is implemented by “programmable operative characteristics.” However, the specific “programmable operative characteristics” necessary to achieve the purported advance are not recited in the claims. Also, according to the majority, the claims need not recite a particular “programmable operative characteristic” to be found patent-eligible under *Alice* step one.

The majority’s reliance on the specification to determine the functionally-claimed solution of configuring a memory system based on the type of processor connected to it is a patent-eligible technological improvement, while at the same time not requiring the claims to recite a particular way to accomplish this solution, is in tension with the analytical framework applied in prior Federal Circuit



decisions that required claims to recite a specific solution to clear the § 101 threshold, even at the Rule 12(b)(6) stage.

For example, in *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016), the Federal Circuit addressed claims directed to the concept of “gathering and analyzing information of a specified content, then displaying the results.” The panel, in an opinion authored by Judge Taranto, focused its inquiry on whether the claims recited “how the desired result is achieved,” identifying several characteristics of claim language that are “frequent feature[s]” of claims found patent-ineligible. These factors include “result-oriented” and “functional” claim language, and claims that do not recite “a particular concrete solution” or “some specific way” of solving a problem.

In *Affinity Labs of Texas, LLC v. DirecTV, LLC*, 838 F.3d 1253, 1258 (Fed. Cir. 2016), the Federal Circuit analyzed claims directed to streaming regional broadcast signals to cell phones. To this concept, the claims recited limitations requiring a cell phone application to be downloaded wirelessly, and the cell phone to have a user interface that allowed the selection of broadcasting channels. Relying on the analysis in *Electric Power Group*, the panel, in an opinion authored by Judge Bryson, held that the claims at issue were “so result-focused, so functional, so as to effectively cover any solution” relating to wireless delivery of out-of-region broadcasting content to a cellular phone. Also, because nothing in the claims recited anything beyond purely conventional technology, the claims scope was not limited in a meaningful way.

The partial dissent in *Amdocs (Israel) Limited v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016)—while not an appeal from a Rule 12(b)(6) motion—also applies a framework for analysis under *Alice* step one that appears to be in tension with the majority’s analysis in *Visual Memory*. In dissent, Judge Reyna criticized the *Amdocs* majority for “rel[ying] on the specification to import innovative limitations into the claims.” According to the dissent, “a claim is ‘directed to’ an abstract goal [under *Alice* step one] if the claim fails to describe *how*—whether by particular process or structure—the goal is accomplished.”

In short, the majority’s sole focus in *Visual Memory* on how the specification characterizes the claimed invention, without analysis of whether the claims recite a particular solution for or implementation of that claimed invention, departs from a framework of analysis applied by multiple panels in the past several years in evaluating § 101 challenges at the Rule 12(b)(6) stage.

***Visual Memory’s* Tension with the Reasoning in the Cases on Which It Relies**

The majority relies on *Enfish* and *Thales Visionix* as “guideposts” for its decision. The reasoning in these cases, however, does not appear to provide clear “guideposts” to support the majority’s framework for analysis.

In *Enfish v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016), the Federal Circuit analyzed claims directed to configuring computer memory according to a logical table. The panel, in an opinion authored by Judge Hughes, concluded the asserted claims “[we]re not simply directed to *any* form of storing tabular data, but instead [we]re specifically directed to a *self-referential* table for a computer database.” Critical to the panel’s decision was the claims’ recitation of a means-plus-function limitation the district court had construed as requiring a particular four-step algorithm disclosed in the specification for creating a self-referential table. Thus, while the majority in *Visual Memory* characterizes the court in *Enfish* as properly relying on the specification to “describe[] the benefits of using a self-referential table” and “highlight[] the differences between the claimed self-referential table and a conventional database structure,” the context in which the court in *Enfish* did so was



under different circumstances than those in *Visual Memory*. In *Visual Memory*—unlike in *Enfish*—the claims do not recite means-plus-function terms, the district court did not construe any claims, and the plaintiff expressly asserted that the specification did not limit the claims.

The second case cited by the majority, *Thales Visionix, Inc. v. United States*, 850 F.3d 1343 (Fed. Cir. 2017), although arguably more on point, still has important differences. In *Thales*, the claims at issue recited a system for tracking the motion of an object relative to a moving reference frame by using two inertial sensors, one mounted to the moving object and one mounted to the moving reference frame. The plaintiff accused a Helmet-Mounted Display System in the J-35 Joint Strike Fighter of infringing the claims. The U.S. Court of Federal Claims granted the government’s motion for judgment on the pleadings, finding the claims to be invalid under § 101 for claiming a patent-ineligible abstract idea. The Federal Circuit, in an opinion authored by Judge Moore, reversed the Claims Court’s decision, finding the claims “nearly indistinguishable” from those in the Supreme Court’s *Diamond v. Diehr* decision for purpose of the § 101 analysis.

Although the claims relied on mathematical equations for determining the relative position of the object, the panel concluded that “[f]ar from claiming the equations themselves, the claims seek to protect only the application of physics to the unconventional configuration of sensors” recited in the claims. To draw this conclusion, the panel looked to portions of the specification which disclosed that the claimed orientation of sensors provided benefits such as “mitigating errors” and being “simpler to install than conventional systems,” and provided these benefits despite the notion the configuration “‘may seem somewhat strange’ to those within the field.” Thus, although the panel in *Thales* relied on the specification, it did so to evaluate a § 101 challenge based on the alleged recitation of a natural law, not an abstract concept as in *Visual Memory*. And unlike in *Visual Memory*, there appeared to be no dispute in *Thales* that the claims recited a particular solution (the specific claimed inertial sensor configuration) and that this particular solution was fully disclosed in the specification.

Thus, although the majority in *Visual Memory* characterizes *Enfish* and *Thales* as “guideposts,” a closer look at the reasoning underlying *Enfish* and *Thales*—and not just their outcome—raises questions as to whether those opinions truly support the analytical framework applied by the majority to justify its finding of patent eligibility under *Alice* step one.

***Visual Memory* Means that the Framework for Evaluating § 101 Decisions at the Rule 12(b)(6) Stage May Be Panel Dependent**

In sum, the reasoning in the panel majority decision in *Visual Memory* is difficult to square with the analytical framework applied by a number of other Federal Circuit panels in § 101 decisions at the Rule 12(b)(6) stage. Before *Visual Memory*, the Federal Circuit appeared to be moving towards a consistent analytical framework that focused on identifying result-oriented claim language without a particular and concrete way of achieving the claimed result. After *Visual Memory*, it appears that the weight to which the Federal Circuit assigns this focus may be panel dependent, the reliance on and use of the specification may be panel dependent, and even a consistent analytical framework for § 101 challenges may have yet to emerge.

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