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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* IGOR Y. GERSHFANG, RICK A. HAMILTON II,  
NEIL A. KATZ, JAMES W. SEAMAN, ADAM R. SNOPEK and  
RICHARD YOUNG

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Appeal 2016-006099  
Application 12/628,383  
Technology Center 3600

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Before CARL W. WHITEHEAD JR, BRADLEY W. BAUMEISTER, and  
JOSEPH P. LENTIVECH, *Administrative Patent Judges*.

WHITEHEAD JR., *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants are appealing the final rejection of claims 1–4, 7–13, 16–20, 23–25, and 27–31 under 35 U.S.C. § 134(a), which constitute all the claims pending in this application. Appeal Brief 1. We have jurisdiction under 35 U.S.C. § 6(b) (2012).

We reverse.

*Introduction*

The invention is directed to “a method for navigating an avatar into a proximity and directionality favorable for viewing advertising content in a Virtual Universe (VU) of a multiplayer online game managed by at least one server . . . .” Appeal Brief 2.

*Illustrative Claim*

1. A method for navigating an avatar into a proximity and directionality favorable for viewing advertising content in a Virtual Universe (VU) of a multiplayer online game managed by at least one server, the method comprising:

registering, by the at least one server, a visit by the avatar to a region of the VU that includes a target advertising content;

determining, by the at least one server, a proximity to the target advertising content by the avatar;

determining, by the at least one server, an avatar directionality of the avatar with respect to the target advertising content;

determining, by the at least one server, a time with respect to which the avatar may be exposed to the target advertising content in the region;

assigning, by the at least one server, at least one score to the visit, the proximity, the directionality, and the time;

calculating, by the at least one server, an effectiveness score based on the at least one score;

evaluating, by the at least one server, an effectiveness of the target advertising content by comparing the effectiveness score to a predetermined scale;

automatically constructing, by the at least one server, a barrier blocking the avatar from moving away from the target advertising content based on the evaluating, the barrier comprising a landscape element; and

inducing, by the at least one server, using the barrier, the avatar to navigate in such a way that the proximity and the avatar directionality of the avatar favor viewing of the target advertising content.

*Rejection on Appeal*

Claims 1–4, 7–13, 16–20, 23–25, and 27–31 stand rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Answer 2–3.

ANALYSIS

Rather than reiterate the arguments of Appellants and the Examiner, we refer to the Appeal Brief (filed October 19, 2015), the Reply Brief (filed May 31, 2016), the Answer (mailed April 5, 2016) and the Final Rejection (mailed May 5, 2015) for the respective details.

The U. S. Supreme Court provides a two-step test for determining whether a claim is directed to patent-eligible subject matter under 35 U.S.C. § 101.<sup>1</sup> In the first step, we determine whether the claims are directed to one or more judicial exceptions (i.e., law of nature, natural phenomenon, and abstract ideas) to the four statutory categories of invention (i.e., process, machine, manufacture, and composition of matter). *Id.* (citations omitted) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1296–97 (2012)) (“*Mayo*”). In the second step, we “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (citing *Mayo*, 132 S. Ct. at 1297–98). In other words, the second step is to “search for an ‘inventive concept’—i.e., an element or combination of elements that is ‘sufficient to

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<sup>1</sup> *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 124 S. Ct. 2347, 2354 (2014).

ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Id.* (citing *Mayo*, 132 S. Ct. at 1294).

Appellants contend “embodiments of the invention are directed to virtual universe technology” and therefore “cannot simply be performed as an abstract idea in one’s head.” Appeal Brief 6. The Examiner finds:

Independent claim 1 is directed towards a business model for advertising to force a video game user to view an advertisement. The claimed virtual universe should be considered an environment for a video game on a generic computer network, using conventional technology. No specialized machinery is disclosed the specification or mandated in the claims.

Answer 3.

In the instant application, “the plain focus of the claims is on an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016)<sup>2</sup>. The claims address

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<sup>2</sup> “We do not read *Alice* to broadly hold that all improvements in computer-related technology are inherently abstract and, therefore, must be considered at step two. Indeed, some improvements in computer-related technology when appropriately claimed are undoubtedly not abstract, such as a chip architecture, an LED display, and the like. Nor do we think that claims directed to software, as opposed to hardware, are inherently abstract and therefore only properly analyzed at the second step of the *Alice* analysis. Software can make non-abstract improvements to computer technology just as hardware improvements can, and sometimes the improvements can be accomplished through either route. We thus see no reason to conclude that all claims directed to improvements in computer-related technology, including those directed to software, are abstract and necessarily analyzed at the second step of *Alice*, nor do we believe that *Alice* so directs. Therefore, we find it relevant to ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea, even at

navigating and directing users to advertisements within the virtual universe for a duration. It is evident that an economic aspect is associated with the claimed invention, however it is the navigation within the virtual universe that is the claimed improvement to the computer function and therefore we find Appellants' arguments persuasive.

#### DECISION

The Examiner's non-statutory subject matter rejection of claims 1–4, 7–13, 16–20, 23–25, and 27–31 is reversed.

#### REVERSED

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the first step of the *Alice* analysis.

For that reason, the first step in the *Alice* inquiry in this case asks whether the focus of the claims is on the specific asserted improvement in computer capabilities (i.e., the self-referential table for a computer database) or, instead, on a process that qualifies as an “abstract idea” for which computers are invoked merely as a tool. As noted *infra*, in *Bilski* and *Alice* and virtually all of the computer-related § 101 cases we have issued in light of those Supreme Court decisions, it was clear that the claims were of the latter type—requiring that the analysis proceed to the second step of the *Alice* inquiry, which asks if nevertheless there is some inventive concept in the application of the abstract idea. *See Alice*, 134 S.Ct. at 2355, 2357–59. In this case, however, the plain focus of the claims is on an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity.”

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JOSEPH P. LENTIVECH, *Administrative Patent Judges*.

Dissenting Opinion by BAUMEISTER, *Administrative Patent Judge*.

DISSENTING OPINION

The Majority determines that the claims recite patent eligible subject matter because “the plain focus of the claims is on an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity.” Maj. Op. 4 (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016)). I respectfully disagree, and for at least that reason, I would affirm the rejection under 35 U.S.C. § 101.

The invention of *Enfish* is distinguishable from the present invention. The invention of *Enfish* was “directed to an innovative logical model for a computer database.” *Enfish*, 822 F.3d at 1330. In contrast to prior-art databases that were based upon a relational model, *Enfish*’s invention was directed to a self-referential model wherein all information of the database appears in a single table, and given rows of the table reference other rows of that same table. *Id.* at 1332–33.

The *Enfish* court expressly noted various technological improvements to the computer functionality that the invention provided:

First, [Enfish’s] patents disclose an indexing technique that allows for faster searching of data than would be possible with the relational model. Second, the patents teach that the self-referential model allows for more effective storage of data other than structured text, such as images and unstructured text. Finally, the patents teach that the self-referential model allows more flexibility in configuring the database.

*Id.* at 1333 (citations omitted and formatting modified).

In contrast, the present Appellants acknowledge that it was known to provide virtual universes (“VUs”) with avatars, as well as to provide advertising within such virtual universe. Spec. ¶ 3. Appellants explain that

the focus of the invention is on the “vitaly important” task of managing the advertising that was known to be used in these virtual worlds. Spec. ¶ 3.

Appellants state that techniques for verifying that advertisements have been viewed “are particularly of interest to sponsors and advertisers.” *Id.*

¶ 4. Appellants then describe a problem associated with known techniques for measuring content viewing in virtual universes relative to viewing advertisements in conventional web pages:

[Measuring content viewing] is not as easily accomplished with emerging 3D virtual environments, where context is extensive from the standpoint of a user, and a “location-hit” cannot be correlated easily to a conventional Internet webpage-hit. Within a VU environment, a location-hit simply indicates that an avatar (resident) has accessed a specific region (or associated sub-space within a region), but given the vastness of these environments, without further investigation[,] it cannot be determined that the visiting avatar has or has not viewed desired advertising content in any given space.

Spec. ¶ 4.

In light of this problem associated with measuring advertising viewing, Appellants state that “aspects of this invention are directed towards determining the effectiveness of advertising a virtual universe.” *Id.* ¶ 4. The balance of the “Summary of the Invention” section of Appellants’ Specification only reiterates that the five aspects of the present invention are directed to evaluating advertising: “provid[ing] a method for evaluating advertising effectiveness in a Virtual Universe” (*Id.* ¶ 5), “provid[ing] a method for evaluating advertising content effectiveness in a Virtual Universe” (*Id.* ¶ 6), “provid[ing] a computer system for evaluating advertising content effectiveness in a Virtual Universe” (*Id.* ¶ 7), “provid[ing] a computer readable medium containing a program product for

evaluating advertising content effectiveness in a Virtual Universe” (*Id.* ¶ 8), and “provid[ing] a method for deploying a system for evaluating advertising content effectiveness in a Virtual Universe” (*Id.* ¶ 9).

Appellants now allege on appeal that their invention is directed to tangible technology. *See* Appeal Br. 6 (“Embodiments of the invention claimed herein are not directed to an abstract idea, but instead to navigation technology”); *id.* at 7 (“the present invention improves on previous technology in virtual universes and navigation therein”). Appellants also argue that “embodiments of the invention overcome a problem specifically arising in computing technology, as only in a computerized virtual universe, could there be an issue as to how to induce an avatar to navigate in such a way that it views an electronic advertisement in such virtual universe.” *Id.* at 8.

Appellants’ arguments on appeal overlook their admissions that navigation technology for virtual universes was known already. *See, e.g.,* Spec. 1. Appellants do not provide reasonable evidence that constructing barriers in virtual universes was technologically challenging in any way or that automatically evaluating the effectiveness of the advertisements provided any technological improvement either to the virtual universes or to the operation of the servers in which the virtual universes reside. *See generally* Spec.; Appeal Br.; Reply Br. Appellants’ invention is better characterized, then, as one that uses conventional navigation technology to improve upon the effectiveness of known virtual-universe advertising techniques.

As such, I agree with the Examiner (e.g., Ans. 3) that the present invention pertains to the abstract idea of organizing human activities. *See*

*ABSTRACT IDEAS* (PART 2), “AN IDEA ‘OF ITSELF’” — MPEP 2106.04(a)(2)  
PART (III) B. Concepts Relating To Advertising, Marketing, & Sales  
Activities Or Behaviors (available at  
<https://www.uspto.gov/sites/default/files/documents/ieg-qrs.pdf>).

Furthermore, the fact that “[v]irtual universe technology is inherently computerized” (Reply Br. 2) does not negate the fact that the invention is directed to the abstract idea of improving the effectiveness of advertising. Nor does that fact that VU technology is inherently computerized mean that the claims as a whole amount to significantly more than that abstract idea. Appellants present insufficient evidence that the acts of building a barrier in a virtual universe and evaluating location-hits are, from a technological standpoint, anything other than well-understood, routine, or conventional activities. To the contrary, the record indicates that the present invention merely improves the effectiveness of known virtual-universe advertising techniques through the use of conventional virtual-universe technology.

Restated, the record indicates that the invention is an improved advertising idea performed *with* a computer—not an improvement to the operation *of* a computer itself.