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THE IMPROVEMENT IN FUNCTIONALITY OF A PHYSICAL SYSTEM IS NOT CONSIDERED ABSTRACT, EVEN THOUGH IT IS NOT DEFINED BY THE RECITATION OF PHYSICAL COMPONENTS

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Introduction: The issue of patent eligibility under 35 U.S.C. §101 has been the subject of important U.S Supreme Court decisions in recent years, in particular in *Mayo Collaborative Servs. v. Prometheus Labs., Inc.* (2012), *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.* (2013), and *Alice Corp. Pty. Ltd. v. CLS Bank Int'l,* (2014). This issue is relevant to a variety of technologies, including biotechnology and computer systems. The recent decision by the U.S. Court of Appeals for the Federal Circuit (CAFC) in *Uniloc USA, Inc. v. LG Electronics USA, Inc.* focuses on this issue in regard to a patent directed to a communication system.

Background: Uniloc sued LG Electronics alleging infringement of Uniloc's U.S. Patent No. 6,993,049. LG moved to dismiss Uniloc's complaint, arguing that the claims of the '049 patent are ineligible under 35 U.S.C. §101. The district court granted LG's motion, determining that the asserted claims are directed to an abstract idea and do not recite an inventive concept. Uniloc appealed to the CAFC.

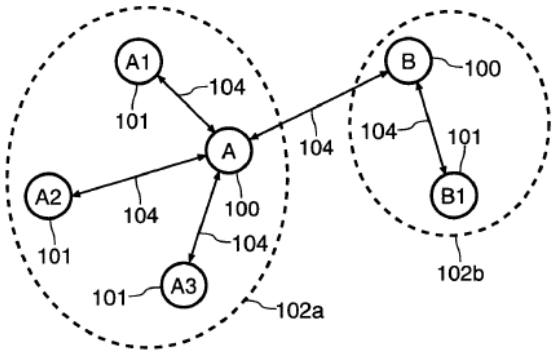

FIG. 1

Uniloc's'049 patent is directed to a communication system comprising a primary (base) station 100 and at least one secondary station 101, such as a computer mouse or keyboard, which share a communication channel commonly called a "piconet," which communicate by a protocol such as Bluetooth. The system is intended to improve the time taken for the primary station 100 to invite the secondary stations 101 to join the piconet. In particular, the invention improves the conventional system by adding a data field for polling secondary stations 101 to send inquiry messages.

LG had argued that the claims are directed to ineligible subject matter. Claim 2 was considered representative:

> 2. A primary station for use in a communications system comprising at least one secondary station, wherein means are provided
>
> for broadcasting a series of inquiry messages, each in the form of a plurality of predetermined data fields arranged according to a first communications protocol, and
>
> for adding to each inquiry message prior to transmission an additional data field for polling at least one secondary station.

The district court held that the asserted claims are directed to the abstract idea of "additional polling in a wireless communication system" and that the claims fail to recite an "inventive concept sufficient to save the claims."

CAFC Decision: The CAFC reviewed the issue of patent eligibility under 35 U.S.C. §101, in particular in view of the two-step framework under the *Alice* decision. In *Alice* step one, the CAFC determined whether the claims are directed to an abstract idea (*Alice*, 573 U.S. at 217). The court addressed the issue of whether the claims focus on specific asserted improvements in computer capabilities or instead on a process or system that qualifies as an abstract idea for which computers are invoked merely as a tool.

In this case, the CAFC determined as follows:

> The claims at issue do not merely recite generalized steps to be performed on a computer using conventional computer activity. Instead, they are directed to "adding to each inquiry message prior to transmission an additional data field for polling at least one secondary station." See, e.g., '049 patent at Claim 2. And this change in the manner of transmitting data results in reduced response time by peripheral devices which are part of the claimed system. As the patent explains, for secondary stations joining a piconet in the prior art systems, "it could take half a minute or more from the time a user moves a mouse to a cursor moving on a screen."

The court concluded:

> The claimed invention's **compatibility with conventional communication systems does not render it abstract**. **Nor does the fact that the improvement is not defined by reference to "physical" components**. *Enfish*, 822 F.3d at 1339. "To hold otherwise risks resurrecting a bright-line machine-or-transformation test, or creating a categorical ban on software patents." Id. (citations omitted). Our precedent is clear that software can make patent-eligible improvements to computer technology, and related claims are eligible as long as they are directed to **non-abstract improvements to the functionality of a computer or network platform itself**. See *Customedia Techs.*, 951 F.3d at 1364 (collecting cases). **The claims of the '049 patent recite a specific improvement in the functionality of the communication system itself,** namely the reduction of latency experienced by parked secondary stations. **This is sufficient to pass muster under Alice step one**." (Emphasis added)

Because the claims were considered eligible under *Alice* step one, there was no need to consider *Alice* step two, and the claims were considered to be patent eligible. The district court's decision was reversed and remanded.

Summary and Key Points: In this case, a broad claim directed to a computer system, and in particular to an improvement to technology based on software, was found to be patent eligible under 35 U.S.C §101. The district court had found that the claims were directed to an **abstract idea** of "additional polling in a wireless communication system." However, the CAFC found that "the claims … recite a specific **improvement in the functionality** of the communication system itself." That is, the improvement in **functionality** of a physical system is not considered abstract, even though it is not defined by the recitation of physical components. This should be an important consideration in drafting U.S. patent applications directed to software improvements to computer systems.

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