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Federal Circuit finds patent directed to use of generic artificial intelligence invalid

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The Federal Circuit recently affirmed the dismissal of a patent infringement action on the grounds that claims covering the application of nonspecific artificial intelligence (AI) algorithms to a particular environment are patent-ineligible under 35 U.S.C. § 101 because they are directed to an abstract idea and contain no inventive concept. The decision provides insight into how courts will apply Section 101 to AI patents and previews potential difficulties in patenting this type of technology.

Background

The Supreme Court has held that, under 35 U.S.C. § 101, "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *See Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014). When considering whether a claim recites ineligible subject matter, courts apply the two-part *Alice* test. First, they determine if the patent claims are directed to a patent-ineligible concept, including an abstract idea. *Id.* at 217. If so, they ask whether the patent claims include an "inventive concept," or if they merely cover the ineligible concept itself. *Id.* at 217-218

Considering the *Alice* test in the context of software patents, the Federal Circuit had previously noted that processes invoking computers "merely as a tool," as opposed to making any specific improvement in computer capabilities, are less likely to be patent eligible. However, it remained an open question how courts would apply the *Alice* test to the use of AI.

Summary

In *Recentive Analytics, Inc. v. Fox Corporation*, the Federal Circuit considered Recentive's patents directed to the use of machine learning to determine broadcast schedules. All four of Recentive's patents described using nonspecific machine learning algorithms with conventional computers to achieve a desired outcome: generating optimized event schedules and network maps.

The court found the patents invalid under *Alice*. At the first step, the court found the patents directed to an abstract idea because they simply described the application of generic machine learning technology and did not claim improvements to machine learning itself. To allow "a claim that functionally describes a mere concept without disclosing how to implement that concept," the court wrote, "risks defeating the very purpose of the patent system." In so finding, the court emphasized that a method for using generic machine learning technology is not eligible for patenting simply because it is applied to a new context, in this case broadcast scheduling. It also clarified that claims are not patent-eligible just because the patents allowed humans to achieve a result "with greater speed and efficiency than could previously be achieved." The court then quickly considered *Alice*'s second step, finding that the patents plainly lacked an "inventive concept" that could transform the patents into something "significantly more" than the abstract idea.

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Notably, at oral argument, Recentive's counsel asserted that it did not patent the AI algorithm itself because of a concern that such a patent would be ineligible under Section 101 as a mathematical "law of nature."

Key takeaways

By concluding that Recentive's patent claims were directed to a patent-ineligible abstract idea, the Federal Circuit has clarified that the patent laws require more than simply claiming the application of a generic AI technique to a new function without disclosing improvements to the AI itself. However, Recentive's comments during argument reflect a countervailing concern that the AI model itself may be considered a mathematical "law of nature." As a result, patent applicants will need to look for a middle ground between the two extremes in order to draft patent-eligible claims.

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