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The Few, The Proud, The Patent-Eligible Software Claims

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It is no secret that it is difficult for software technology patent claims to be deemed subject matter eligible under 35 U.S.C. § 101 on appeal, as only a handful of cases involving software technology have passed § 101 scrutiny by the Federal Circuit since the Supreme Court's decision in *Alice v. CLS Bank*¹: Until recently, there have been only three such cases: *DDR Holdings, LLC v. Hotels.com, L.P.*,² *Enfish LLC v. Microsoft Corp.*,³ and *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*.⁴ However, now a fourth case may be added to those ranks. On September 13, 2016, the Federal Circuit decided *McRO, Inc. v. Bandai Namco Games America Inc.*,⁵ ruling that claims directed to automating part of a preexisting 3-D animation method were patent-eligible under § 101. Below is a review of the *McRO* case facts, the legal reasoning of the Federal Circuit in reaching its conclusion, and some new practical takeaways for claim drafting and prosecution before the U.S. Patent Office.

The Background of *McRO*

The *McRO* case reached the Federal Circuit on an appeal from a judgment by the Central District of California holding the claims of U.S. Patent Nos. 6,307,576 and 6,611,278 invalid under § 101.⁶

The patents at issue describe the automation of part of a preexisting 3-D animation method that involved manipulating the facial expressions of a 3-D character when that 3-D character makes certain sounds (“phonemes”) while speaking.⁷ In the pre-existing 3-D animation method, a human animator was required to select “morph weights” between a “neutral model” (i.e., a resting, neutral facial expression) and a “morph target” (a facial expression associated with making a certain sound) to provide a desired facial expression when the 3-D character was making a certain sound while speaking.⁸ Morph weights were manually set at particular times (“keyframes”) when the 3-D character was identified as making a particular sound using a timed transcript of the 3-D character speaking, and a computer program would then interpolate between the keyframes to cause the facial expressions of the 3-D character to morph between the keyframes.⁹ The patents claim a process that automates this pre-existing 3-D animation method by determining when to set morph weights for keyframes, and setting those morph weights for the keyframes, using rules that are applied to the timed transcript and that take into consideration the differences in mouth positions for similar sounds based on context.¹⁰

Those rules are described in the patents as providing for the automation of the process of creating realistic transitions between silence and speaking, since in the pre-existing 3-D animation method such silence-to-speaking transitions were associated with the 3-D character gradually opening its mouth when it was supposed to be in the process of making a particular sound, and required animators to subjectively identify the problematic

¹ 134 S. Ct. 2347 (2014).

² 773 F. 3d 1245 (Fed. Cir. 2014).

³ Appeal No. 2015-1244 (Fed. Cir. 2016).

⁴ Appeal No. 2015-1763 (Fed. Cir. 2016).

⁵ Appeal No. 2015-1080 (Fed. Cir. 2016). The oral arguments occurred in December 2015.

⁶ *McRO*, Appeal No. 2015-1080, slip op. at pp. 4, 13-15.

⁷ See *id.* at pp. 4-5.

⁸ See *id.* at pp. 7-8.

⁹ See *id.* at pp. 7-9.

¹⁰ *Id.* at pp. 9-10.

sequence, manually fix it by adding an appropriate keyframe, and manually determine appropriate morph weights to make the silence-to-speaking transition more realistic.¹¹ In the claimed approach, the rules automate this process by effectively creating a keyframe prior to the 3-D character beginning to speak after a silence, which causes the 3-D character to open its mouth prior to speaking to obtain the realistic transition into speech.¹²

While the District Court appeared torn on the subject matter eligibility of the patent claims, stating that “[f]acially, these claims do not seem directed to an abstract idea. They are tangible, each covering an approach to automated three-dimensional computer animation, which is a specific technological process,”¹³ it ultimately concluded that “the claim adds to the prior art...the use of rules, rather than artists, to set the morph weights and transitions between phonemes,”¹⁴ and held that novel portions of the invention were “too broadly preemptive to satisfy § 101”¹⁵ because they were “not limited to specific rules, but rather ‘purport to cover all such rules’” such that they “preempt the field of such lip synchronization using a rules-based morph target approach.”¹⁶

The Federal Circuit’s Reasoning

In overturning the ruling by the District Court, the Federal Circuit disagreed with the District Court’s determination that the claims of the patents were directed to the abstract idea of “automated rules-based use of morph targets and delta sets for lip-synchronized three-dimensional animation,”¹⁷ pointing to its previous warnings to the lower courts against oversimplifying claims by looking at them generally and failing to account for their specific requirements.¹⁸ Instead, the Federal Circuit felt that the claims were “limited to rules with specific characteristics...in that they define morph weight sets as a function of the timing of phoneme sub-sequences.”¹⁹

In explaining that argument, the Federal Circuit noted that “processes that automate tasks that humans are capable of performing are patent-eligible if properly claimed” by pointing out the Defendants’ failure to dispute that point,²⁰ and refuted the District Court finding that the claims improperly purported to cover all rules by finding that the claims here were properly claimed and “limited to rules with certain common characteristics, i.e., a genus,” noting that “[c]laims to the genus of an invention, rather than a particular species, have long been acknowledged as patentable.”²¹

The Federal Circuit then proceeded to perform a preemption analysis in light of the preemption findings by the District Court,²² which the Federal Circuit framed as a determination of “whether the claims in these patents

¹¹ *McRO*, Appeal No. 2015-1080, slip op. at p. 10.

¹² *Id.*

¹³ *Id.* at p. 13.

¹⁴ *Id.* at p. 14.

¹⁵ *Id.*

¹⁶ *McRO*, Appeal No. 2015-1080, slip op. at p. 14.

¹⁷ *Id.* at p. 21.

¹⁸ *Id.*

¹⁹ *Id.* at p. 22.

²⁰ *Id.* at p. 22.

²¹ *McRO*, Appeal No. 2015-1080, slip op. at p. 22.

²² *See id.* at p. 14.

focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invokes generic processes and machinery.”²³

In that preemption analysis, the Federal Circuit disagreed that the claims simply used a computer as a tool to automate conventional activities, arguing that there was “no evidence that the process previously used by animators is the same as the process required by the claims,”²⁴ and “[t]here has been no showing that any rules-based lip-synchronization process must use rules with the specifically claimed characteristics.”²⁵ Rather, the Federal Circuit noted the Defendants’ concession that the pre-existing animation method “was driven by subjective determinations rather than specific, limited mathematical rules,”²⁶ and argued that the computer in the claimed process was “employed to perform a distinct process to automate a task previously performed by humans.”²⁷

Of particular importance to the Federal Circuit was the fact that, in the pre-existing animation method, “animators would initially set keyframes at the point a phoneme was pronounced to represent the corresponding morph target as a starting point for further fine tuning... This activity, even if automated by rules, would not be within the scope of the claims because it does not evaluate sub-sequences, generate transition parameters or apply transition parameters to create a final morph weight set,”²⁸ and “there are many other possible approaches to automating lip synchronization using rules.”²⁹ The Federal Circuit then concluded that “the structure of the limited rules reflects a specific implementation not demonstrated as that which ‘any [animator] engaged in the search for [an automation process] would likely have utilized,”³⁰ and “[i]t is the incorporation of the claimed rules, not the use of the computer, that ‘improved [the] existing technological process’ by allowing the automation of further tasks,”³¹ distinguishing *Flook*, *Bilski*, and *Alice* “where the claimed computer-automated process and the prior method were carried out in the same way.”³²

Takeaways for U.S. Prosecution

The above analysis by the Federal Circuit, and attending resultant holding, provides practical takeaways for drafting claims and prosecuting them at the USPTO. As a threshold matter, this is another case like *Enfish* that reiterates that step one of the *Alice* analysis has purpose, and cannot merely be glossed over by the USPTO.

During prosecution, practitioners should continue to argue the Examiner’s conclusion that the claims are directed to an abstract idea fails to “account for the specific requirements of the claims” and instead looks at them only generally where applicable. While this provides a relatively strong position, as many Examiners tend to generalize a broad concept from the claims and immediately follow that with a comparison to one of the concepts identified as abstract from court decisions, as a matter of practical reality it is doubtful Examiners will give any meaningful thought to this argument. However, it can provide a legal basis (on the *Enfish* and *McRO* line of cases) for appeal with a clear record, and thus is still a worthy exercise.

²³ *Id.* at p. 23.

²⁴ *Id.* at p. 24.

²⁵ *Id.* at p. 26.

²⁶ *McRO*, Appeal No. 2015-1080, slip op. at p. 24.

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.* at p. 26.

³⁰ *Id.* at p. 27.

³¹ *McRO*, Appeal No. 2015-1080, slip op. at p. 24.

³² *Id.* at pp. 24-25.

Another takeaway from this decision may be applied in situations where the claims are only rejected under § 101 (i.e., no art rejections under §§ 102 or 103). Typically, when applicants have argued against these “101-only” rejections by pointing to an admitted lack of teaching in the prior art (e.g., that there is “significantly more” under step two as identified by the absence of an art rejection), the Examiner has rebutted with argument that the requirements of § 101 and § 103 are different without really identifying or justifying how. Using the Federal Circuit’s reasoning in *McRO*, applicants may look at whether they have an analogous argument that their claimed process is carried out in a different way than that in the prior art and, if so, may point to the Federal Circuit’s argument in *McRO* that “Defendants provided no evidence that the process previously used by animators is the same as the process required by the claims ... This is unlike *Flook*, *Bilski*, and *Alice*, where the claimed computer-automated process and the prior method were carried out in the same way.”³³

The Federal Circuit’s reasoning in *McRO* also lends itself to an argument during prosecution that reminds the Examiner that a claim is not *per se* abstract merely because rules are involved or human tasks are automated. As such, claims directed to automating human tasks may be argued as not being *per se* abstract because they have been “properly claimed” as in *McRO*.

Finally, the doctrine of preemption still has teeth. Though the Patent Office has downplayed the role preemption plays in the § 101 analysis (e.g., stating in the 2015 July Update that “questions of preemption are inherent in the two-part framework from *Alice Corp. and Mayo*,” although in practice Examiners rarely address preemption in Office Actions), *McRO* focused a notable portion of its analysis on this point.³⁴ The Office typically responds to arguments regarding preemption with the conclusory assertion that “the absence of complete preemption does not guarantee that a claim is eligible.”³⁵ In rebuttal, applicants may rely on *McRO*’s approach of looking at a “narrower concern” in the absence of complete preemption and may analogously argue that their claims do not preempt all techniques for accomplishing a desired result, pointing to the Federal Circuit finding there were many other “alternative rules-based methods of animating lip synchronization and facial expressions of three-dimensional characters ...”³⁶ to the process claimed in *McRO*.

Conclusion

The decision in *McRO* again demonstrates that the first step in the *Alice* test is not a mere formality, and further emphasizes the need to avoid oversimplifying the claims when alleging an abstract idea by failing to account for specific requirements in the claims. Even where claims appear to incorporate “classic” abstract idea concepts (i.e., rules, human activity, etc.), the *McRO* decision emphasizes that step one must still include a full analysis of the claims by taking into account any specific requirements of those claims, and particularly whether those specific requirements are different from the art in achieving a result.

This is but one addition to a small (but hopefully growing) stable of decisions demonstrating that it is not a bygone conclusion that most claims in the software arts are unpatentable under § 101. The road ahead is still a long one for those attempting to overcome § 101 in certain art units in the USPTO and in litigation, but this decision adds another glimmer of hope and support for arguments directed to the subject matter eligibility of software technology: *McRO* again reminds defendants, and the USPTO, that they must do their work in adequately proving both steps of the *Alice* test, and applicants/patent owners should hold them to that.

³³ *Id.*

³⁴ See, e.g., *id.* at pp. 23-27.

³⁵ See July 2015 Update: [Subject Matter Eligibility, p. 8](#)

³⁶ *McRO*, Appeal No. 2015-1080, slip op. at pp. 26-27.