

Patent Court Decision Clarifies Mental Act Patentability Exclusion

We talk a lot about software and business method patents, but one of the subject-matter exclusions which attracts less attention is that of methods of performing a mental act. The exclusion has been touched upon in past UK decisions and two possible interpretations have been considered, the wide interpretation and the narrow interpretation. The question of which interpretation is correct has not been tackled head-on, until now.

The scope of the mental act exclusion was addressed in full by HHJ Birss QC in his recent Patents Court judgement on Halliburton's application. This case is an appeal from a refusal by the UK Intellectual Property Office (IPO) of four UK patent applications relating to methods of designing a drill bit by simulation.

Schemes, rules and methods for performing a mental act as such are excluded from patentability by the same legislative clauses that exclude software and business methods. This is true both in the UK and in the European Patent Office (EPO). As with the other exclusions, the "as such" rider has created confusion and debate as to where exactly to draw the line between patentable and non-patentable. This decision provides important clarifications in this regard.

The bulk of the decision concerns the choice between the wide interpretation of mental acts, in which any method capable of being carried out mentally is excluded, and the narrow interpretation, in which only methods actually carried out mentally are excluded. This potential difference in interpretation makes a huge difference in the case of complex numerical processes such as simulations - in theory, the processing involved in the simulation could be carried out mentally, without the aid of a computer. However as a matter of practical reality, a computer is always required.

The reasoning behind the court's decision is that the purpose of the exclusion is to prevent patents being granted which could be infringed by thought alone. On this basis, only the narrow interpretation is required - if the claim specifies that the process is carried out on some form of hardware, then the claim cannot be infringed by thought alone.

In Halliburton's case here, the claim was for a method of designing a drill bit by means of simulation. The claim did not explicitly state that the simulation was carried out on a computer, but upon construing the claim, the judge found a computer to be an implicit requirement of the claim. Therefore the claim was found not to be excluded as a method of performing a mental act

Having overcome the mental act exclusion, the court went on to consider the computer program and mathematical method exclusions. A further important confirmation provided by the judge in this case is that designing a drill bit is a technical process. Therefore, even where that process is carried out by computer simulations, the end result (a better drill bit) provides the required technical effect and the claim is therefore not considered to relate to a computer program as such. Also, as the data on which the mathematics of the invention is performed represent something concrete, the claim is not a mathematical method as such.

The previous position in the UK regarding such subject matter required the claim to include a step of manufacturing the end product (e.g. manufacturing the drill bit). Such a step was considered to take the claimed subject matter out of the realms of the exclusions.



However, following this case, it is clear that a step of manufacturing is not required when the claim is limited to computer implementation. This can have important consequences for the scope of the granted claim. For example, in the former case, who do you sue if the design process is carried out by one company and the manufacture is carried out by a different company. The revised approach certainly provides greater flexibility to applicants.

This decision brings the UK approach into line with the current practice at the EPO. As such harmonisation is generally viewed as a good thing and as the UK IPO has already issued a revised Practice Note stating that patent examiners will now follow this decision, it seems unlikely that the IPO will appeal.

There remains a difference of opinion between the UK and the EPO as to how claims involving non-technical subject matter should be examined. However, the judge observes in this decision that "there is no reason why different outcomes should emerge from a consistent application of the approach [of the UK courts] ... and the current approach in the EPO". This is a very sensible attitude as both laws ask the same fundamental questions for assessing patentability. The EPO case law states that it does not apply the "contribution approach" (i.e. asking whether the invention contributes anything technical to the known art), but strictly speaking, the EPO simply does not apply the contribution approach to its initial assessment of the excluded subject matter provision. When it comes to assessing inventive step the EPO approach most certainly does take into account the technicality of the contribution. Therefore the difference is merely a matter of what order the steps are applied in.

Further afield, similar issues are currently also under scrutiny in the United States. In his recent decision on *Ulramercial v Hulu* in the Court of Appeals for the Federal Circuit, Judge Rader noted that the patent "does not claim a mathematical algorithm, a series of purely mental steps, or any similarly abstract concept" and goes on to note that "The eligibility exclusion for purely mental steps is particularly narrow ... Unlike the claims in *CyberSource*, the claims here require, among other things, controlled interaction with a consumer via an Internet website, something far removed from purely mental steps".

There is a common theme running through all these decisions, in the UK, the EPO and the US, namely that we should be careful about applying the patentability exclusions too broadly. It is recognised that modern inventions are often implemented largely or wholly in the form of computer software and that such innovations can involve significant technical advances. Such contributions should not be excluded from patent protection simply because of the form in which the invention has been made.

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