Excluded subject matter - Is it all in the mind?

Software and business method patents get frequent attention in the media, but what about methods of performing a mental act? In particular, what about computer implemented methods of performing simulations?

These are the questions addressed by HHJ Birss QC in his Patents Court judgement on Halliburton's application (on appeal from a refusal by the UK Intellectual Property Office (IPO)). The results represent a positive development for patent applicants.

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.

Two possible interpretations of the mental act exclusion have been considered in the past. The first is the wide interpretation in which any method capable of being carried out mentally is excluded. The second is 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 court's decision is based on the premise 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.

Of course it is important to note that, having overcome the mental act exclusion, the computer program exclusion is still there. However, 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.

The previous position 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. 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.
It is possible that this decision will be appealed by the IPO. However, the decision brings the UK approach into line with the current practice at the EPO. Such harmonisation is generally viewed as a good thing and consequently there would be a strong likelihood of the decision being upheld on 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.

So does this decision represent a change in direction for the UK approach to patentability? In the courts, not really. It is not so much a U-turn as a nudge in the right direction; a clarification of an interpretation that was already generally preferred. However, there should hopefully be a more marked change of practice in the examination of UK patent applications at the IPO. The judge observes that the current Practice Note of the IPO follows the wide interpretation of the mental act exclusion and thus is not consistent with this judgement. Accordingly, if the IPO accepts this decision (either without or following an appeal), then a new Practice Note should be issued, giving more certainty to both Patent Applicants and Patent Examiners that the narrow approach is the correct one.

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