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A legal update from Dechert's Business Intellectual Property Group

Protecting Business Methods And Software By Patent: The UK Position

Successful companies have always relied on innovation to maintain their edge, and one of the most frequent areas on which companies seek advice is how to protect the investment they have made in their "big idea." If it is a new tangible product – the proverbial "better mousetrap" – then it is relatively straightforward. Aesthetic or functional articles can generally be protected by design laws and industrial products by patent.

A great deal of innovation in the Western world these days is less tangible, however – particularly in the ever expanding financial services area. Businesses may develop new software which permits existing business practices to be carried out more efficiently or entirely new business methods. The great problem is that many ideas – once the innovator has first thought of them – seem obvious, and everyone wishes to copy the new method. How can it be protected? If the new process is not apparent from the result, then there may be some protection from Know How rights, but these are only effective if the concept remains confidential. Similarly, new software is protected by copyright, but this only prevents copying either of source code or (but more difficult) of the structure and function of the software, its mode of operation. Copyright in other words protects the expression but does not protect the underlying *idea*, which provides an element of functionality.

The United States has met this question head on with a very wide view of patentability: "*any new and useful process, machine, manufacture, or composition of matter, or any new or useful improvement thereof*" (U.S. Patent Act, 35 U.S.C. § 101 (1994)), which has been said to cover "*anything under the sun made by man.*" (U.S. Senate Report No. 1979, 82d Cong., 2d Sess. 5 (1952)) Computer programmes were expressly found to be patentable in *In re Alappat*, 33 F.3d 1526, 31 USPQ 2d 1545 (1994) and business methods by *State Street Bank and Trust Co v Signature Financial Group Inc*, 149 F.3d 1368, 47 USPQ 2d 1956 (1998). Since then the floodgates

have opened and patent protection has been sought for a vast number of business methods, many of which seem to an outsider to be far from novel. The European view is that this has led to increased uncertainty and cost.

The EU has taken a much more cautious view. Article 52 of the European Patent Convention (which was more or less repeated in the domestic UK statute) provides that patents may be granted "for any inventions which are susceptible of industrial application, which are new and involve an inventive step" but then proceeds, in Article 52(2), to list certain categories which are NOT regarded as inventions including "**schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers.**" (emphasis added) There was a proposal recently for a directive to "harmonise" the position on computer implemented inventions which, according to its critics, would have gone a long way to remove the exclusion of software patents, but this was voted down by the European Parliament (a very rare occurrence) because of the belief that the U.S. position actually stifled rather than encouraged innovation.

This would seem to be the end of the matter but for a caveat in Article 52(3) which provides that the elements listed in 52(2) exclude patentability "**only to the extent** to which a European patent application or European patent **relates to such subject matter or activities as such.**" (emphasis added) Much blood, sweat and tears have been spent in trying to interpret these few words, and the strength of the exclusions has varied with both software and business methods occasionally gaining protection.

The cases are confusing – if not mutually contradictory – and do not seem to reveal any consistent rules as to where the line will be drawn. Various cases before both the UK courts and the European Patent Office Boards of Appeal (with which UK rulings must seek to be

consistent) developed three distinct approaches as to the process of determining whether the exclusion bites – which produce very different results. However, in the case of *Aerotel Ltd v Telco Holdings Ltd & Others* [2006] EWCA Civ 1371 (generally known as the **Macrossan case** – as it involved, amongst other things, a patent application by a Mr. Neil Macrossan), the UK Court of Appeal tried to make sense of the precedents and lay down some coherent principles.

They looked first at the three approaches. The first was the **“contribution” approach**, which simply asks whether the inventive step resides **only** in the contribution of matters excluded under Art. 52(2) in which case the exclusion bites. The court favoured this approach but was unable to follow it explicitly because of a conflict with earlier Court of Appeal decisions.

The second approach was the **“any hardware” approach**. If the claim involves the use of any physical hardware – “whether a computer or a pencil and paper” – the exclusion does not apply. The theory is that, while the method itself may be excluded, the apparatus used would not be so excluded. The courts would then look at the claim on traditional grounds to see whether the claim was bad for obviousness. In some cases, there was a gloss that deemed a notional “skilled man” to know of the improved excluded method. The Court of Appeal described this as “intellectually dishonest” and drew a parallel with a claim that an iPod loaded with a new piece of music was “new” hardware – whether or not one deemed the new music to be part of the prior art.

The approach which the Court claimed to have eventually adopted - albeit with a gloss to bring it closer to the contribution approach – was the **“technical effect” approach** – to see if the invention as defined in the claim makes a **technical** contribution to the known art. If so, the exclusion does not apply.

The Court of Appeal proposed and applied a **4 stage test**

- 1) **properly construe the claim** – You have first to identify the actual monopoly claimed, to see if it is excluded;
- 2) **identify the actual contribution** – What has the inventor really added to human knowledge? “The formulation involves looking at substance not form.” The Court accepted that, at the application stage, this

could include an “alleged contribution” – though at the end of the day, the test would be what contribution had actually been made not what the inventor claimed

- 3) **decide if the contribution is solely of excluded matter**; and
- 4) **check whether the contribution is technical**. The court recognised that, in many cases, this step would not be necessary as this would have been determined at stage three.

Mr. Macrossan’s claim proved an ideal case in point:

Step 1 Claim. The patent application was for an automated system for filing company formation documents.

Step 2 Contribution. Mr. Macrossan did not suggest he invented any new kind of hardware but a programme for an interactive system to perform what was normally done manually by a solicitor.

Step 3 Exclusions. It was found at first instance that the business method exclusion was intended to exclude only abstract methods of doing business and not, as here, a concrete tool to carry out a specific task – albeit one that might be used in a business context. The Court of Appeal disagreed. It found there was no reason to limit the business method exclusion to the abstract. “Whether as an abstract or a generalised activity or a very specific activity, if it is a method of doing business as such, it is excluded.” The analogy with a “tool” was misleading as the claim was actually for the very business itself.

Turning to the computer software exclusion, what was claimed was just the software. The hardware used was standard and formed no part of the contribution. It could not be argued that a computer loaded with the software was in some way a new computer. The contribution, therefore, fell squarely within the computer software exclusion “as such.”

Step 4 Technical Effect. There was no technical step beyond the running of a computer programme and so nothing to save the claim which was disallowed.

The *Macrossan* 4 step test seems logical and lucid and has now been adopted and put into operation by the UK patent authorities for all UK applications.

Unfortunately, the European Patent Office Board of Appeal (which, however, cannot overrule the Court of Appeal in the UK) has again muddied the waters in the subsequent *Duns Licensing* case (T 0154/04 3.5.01 (2006) *Method of estimating product distribution/DUNS LICENSING ASSOCIATES*). Perhaps stung by the “intellectually dishonest” comment, the EPO attacked the Appeal Court’s ruling as “not consistent with a good faith interpretation of the EPC,” and claimed that the EPO had abandoned both the “contribution” and the “technical effects” approach on which the decision was based some ten years ago. They felt that to ask the question as to what the contribution added to human knowledge – before deciding if the claim was of a technical nature – confused the absolute notion of an invention with the relative one of novelty.

The EPO Board’s approach is to look first at whether the claim is an “invention” (not to be confused with novelty or an inventive step which are quite separate tests). Inventions are limited to creations of a technical character – “how to solve a particular technical problem using particular technical means.”

Only once the technical features of the claim have been defined can the question of novelty be approached. The EPO will permit non-technical elements to be included in the formulation of the problem to be solved – as otherwise the claim may not be comprehensible – but only the technical elements will be relevant to any novelty debate. The innovation must be on the technical side, not in a non-patentable field.

The EPO Board also found that the exclusion criteria must be construed narrowly - “by having technical character, any product, even if formally relating to the [excluded categories] is not excluded from patentability.”

Unfortunately, this still begs the question as to what IS technical – which the Court of Appeal were hoping to avoid.

The Court of Appeal, mindful of the confused case-law (and in particular their move away from the “any hardware” approach to technical effect which might have allowed many more claims) suggested that an Enlarged Board of Appeal of the European Patent Office (the “court of appeal” from the normal EPO Appeals Board) look into the whole matter of how the Article 52(2) exclusions should be applied, once and for all. They suggested the Enlarged Board specifically be asked “is an operative computer

programme loaded onto a medium such as a chip or hard drive excluded unless it produces a technical effect. If so what is meant by “technical effect?” and “What are the key characteristics of the method of doing business exclusion.”

Alas, the EPO declined the invitation, and Mr. Macrossan’s leave to appeal to the House of Lords was refused. Therefore, the Court of Appeal’s methodology currently represents the final word for cases brought before the UK courts, despite the EPO ruling.

While the thought of so many eminent Lords Justices and Appeal Board members dancing on the head of the proverbial pin may be intriguing, where does this leave patent applicants?

UK applicants should certainly check their claims against the *Macrossan 4* part test as this is current UKIPO procedure.

While it may be thought that the EPO approach would give a greater chance of success to a claim arguably within the exclusions – particularly if the “technical” nature of the claims can be emphasized – and so a filing with the EPO preferable, the debate as to what they mean by “technical” continues and the EPO Board in *Duns Licensing* finally also refused the patent application even on their more liberal sounding test. The claim there was for a novel means of using weighted sales data to forecast future sales. The EPO found that “gathering and evaluating data as part of a business research method, even if the data relates to physical parameters or geographic data as in the present case do not convey technical character to a business research method if such steps do not contribute to the technical solution of a technical problem.” The contribution to prior art was limited to implementation of the new algorithm, which did not imply use of any new technical means.

Technical effect seems to remain, in the words of Lord Justice Jacob “like an elephant: you know it when you see it but you can’t describe it in words.”

It remains likely that, whichever route is chosen, unless and until the EPC exclusions are expressly amended, the vast bulk of business method and software patent claims will continue to fail.

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