NEWS BRIEF

AI patentability: rift healed but questions remain

At the heart of the recent Supreme Court judgment in *Emotional Perception AI Ltd v Comptroller General of Patents, Designs and Trade Marks* is a fundamental constitutional question: if the UK is a member of an international convention, how do the UK courts ensure that the application of the law in the UK remains consistent with the application of the law elsewhere (*[2026] UKSC 3*)?

The Supreme Court in *Emotional Perception* allowed an appeal by Emotional Perception AI Ltd (EPL) against the Court of Appeal's decision that the appellant's patent application was excluded from patentability (*see News brief "Artificial neural networks: Court of Appeal examines patentability", www.practicallaw.com/w-044-2469 and Opinion "Patenting AI and quantum computing: a restriction on the UK's growth agenda?", www.practicallaw.com/w-047-0681*).

Patentable subject matter

In *Emotional Perception*, the international convention in question was the European Patent Convention (EPC) and the case concerned the identification of subject matter that is excluded from patent protection.

Section 130(7) of the Patents Act 1977 (section 130(7)) (1977 Act) provides that certain sections of the 1977 Act are framed so as to have, as nearly as practicable, the same effects in the UK as the corresponding provisions of the EPC. This includes section 1(2) of the 1977 Act (section 1(2)), which excludes certain things such as "schemes, rules and methods for doing business" and "programs for computers" from being inventions for the purpose of the 1977 Act. However, crucially, although section 1(2) states that these are not to be considered inventions, this is subject to an important rider; that is, the exclusion only excludes subject matter from being patented "to the extent that a patent or patent application relates to that thing as such".

The rider to section 1(2) has been the subject of many court and patent office decisions since it came into force.

One highly influential early European Patent Office (EPO) decision in this area was *Vicom /Computer-related invention*, in which the EPO Board of Appeal held that the technical contribution of a claimed invention over the prior art was decisive in determining whether an invention related to patentable subject matter as such (*T 208/84*). This approach was soon endorsed by the UK's Court of Appeal in *Merrill Lynch's Application* with Lord Justice Fox declaring that "what is needed to make an excluded thing patentable" is "a technical contribution", stating that this is "a concept at the heart of patent law" that is accepted by the UK courts and the EPO (*[1989] RPC 561*).

Diverging approaches

Although the UK courts and the EPO were in harmony in the early 1990s, the EPO gradually modified its approach to assessing patentable subject matter in the early 2000s.

The EPO Board of Appeal noted that the identification of a technical contribution was undertaken both when determining whether a claim related to patentable subject matter and then again when determining whether a claimed invention was inventive. Further, whereas the EPC defined what was to be considered prior art for the purposes of assessing novelty and inventive step, no such definition existed for what art should be considered when determining whether a claimed invention gave rise to a "technical contribution" over the existing art.

In view of this, the EPO gradually abandoned the approach in *Vicom* and replaced it with a new test based on whether a claimed invention involves the interaction of physical entities or concrete products as a test for the identification of patentable subject matter, which is sometimes known as the "any hardware" approach. The requirement for the presence of a technical contribution was retained, but solely in the context of assessing inventive step.

Things came to a head in 2006 when the Court of Appeal was asked to rule in the joint appeals in *Aerotel Ltd v Telco Holdings Ltd and others* and *Patent Application by Neal William Macrossan* (*[2006] EWCA Civ 1371; see News brief "Patenting inventions: the Court of Appeal's four-step programme", www.practicallaw.com/5-206-3960*). The court noted that the EPO had moved on from the *Vicom* test but declined to join it, not least because the court was bound by its earlier precedents where the *Vicom* test had been applied. Since then, the UK Intellectual Property Office (IPO) has continued to apply the *Vicom* test, although slightly reformulated and renamed as the *Aerotel* test, when assessing whether an invention relates to patentable subject matter. For this reason, despite the requirements of section 130(7), different tests for the identification of patentable subject matter have been applied in the IPO and the EPO.

Healing the breach

20 years later, the Supreme Court in *Emotional Perception* has now finally healed this breach.

A key development occurred in 2021, when the EPO's Enlarged Board of Appeal endorsed the EPO's approach to the assessment of patentable subject matter in *Bentley Systems (UK) Ltd/Pedestrian simulation*, a case that related to the patentability of computer simulations (*G1/19*). The Supreme Court in *Emotional Perception* considered that this endorsement gave the EPO's approach to assessing patentable subject matter the status of settled law, which the Court of Appeal had felt was not the case when it had decided *Aerotel*. The court considered that the *Aerotel* test should therefore be abandoned and the IPO should now adopt the EPO's "any hardware" approach to determining whether a computer-implemented invention relates to patentable subject matter.

A key objection that the IPO had raised against adopting the EPO's "any hardware" approach, was that this would also oblige it to modify its approach to the assessment of inventive step, as that is where the EPO determines whether an invention gives rise to a technical contribution.

In contrast to the EPO's approach to assessing inventive step, which involves determining whether the differences between a claimed invention and the closest prior art provide a

non-obvious solution to a technical problem, the IPO undertakes a more holistic approach to assessing inventive step. Previously, in *Actavis Group PTC EHF and others v ICOS Corporation and another*, the Supreme Court had rejected calls for the UK courts to abandon their established approach to the assessment of inventive step in favour of the EPO's problem-and-solution approach (*[2019] UKSC 15; www.practicallaw.com/w-020-1620*).

The Supreme Court in *Emotional Perception* has solved this problem by instructing the IPO to adopt a hybrid approach.

Intermediate step

The IPO will now assess patentability under section 1(2) using the EPO's "any hardware" approach, which the Supreme Court in *Emotional Perception* described as a low hurdle to overcome. The IPO will then undertake an intermediate step before assessing novelty and inventive step in the conventional way in accordance with established UK case law.

The nature of this new intermediate step is to be found in what the Supreme Court labelled as "the *Duns* principles" after *Duns Licensing Associates*, which the EPO's Enlarged Board approved in *Bentley Systems* (*T 154/04*).

The most important principle to apply will be Principle F where the EPO's Enlarged Board stated that: "Novelty and inventive step, however, can be based only on technical features, which thus have to be clearly defined in the claim. Non-technical features, to the extent that they do not interact with the technical subject matter of the claim for solving a technical problem, i.e. non-technical features 'as such', do not provide a technical contribution to the prior art and are thus ignored in assessing novelty and inventive step."

The implementation of this step will be crucial for EPL as the case has been returned to the IPO for the assessment of inventive step.

EPL's application related to the use of a neural network to process file recommendations, such as video, audio and data files, and provide a recommendation of files containing similar content.

Although the Supreme Court declined to provide a definition of "computer" or "computer program", it did rule that the neural network used by EPL fell within any definition of computer that the IPO might adopt. EPL's invention therefore overcomes the "any hardware" hurdle and so it survives the initial assessment of patentable subject matter.

Recommendation systems

It is unclear how the IPO will formulate the new intermediate step. However, if the IPO is influenced by previous EPO decisions in this area, matters are not looking hopeful for EPL. The EPO has consistently ruled that recommendation systems do not provide technical subject matter which solves a technical problem. Examples of cases where recommendation systems have been rejected include *Relationship discovery/YAHOO!, LG Electronics Inc,* and *Recommendation of applications/BAIDU* (*T 306/10; T 2313/12; T 1983/18*).

A fundamental problem would appear to be that there is no objective test for determining if one recommendation system is better than another. There may be many ways in which data may be processed to try to identify similar products to recommend to a consumer. However, whichever approach is used is, to a certain extent, somewhat arbitrary. Presumably, a better recommendation system is one that matches more closely with consumers' desires and causes them to make more purchases. However, solving such a problem would appear to be the solution to a business, rather than a technical, problem and implementing a novel business scheme is not considered to be inventive by the EPO.

Although the ultimate fate of EPL's application is unclear until the IPO makes its assessment of inventive step, there is a significant danger that EPL's victory in the Supreme Court will ultimately turn out to be a Pyrrhic one. Although *Emotional Perception* may have helped to bring UK patent law back into line with EPO practice, that may not be enough for EPL to ultimately succeed in its aim of obtaining a patent for its recommendation system.

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