
Michael Stott


Sean Leach

How does Eligibility Examination at the USPTO currently compare with the EPO?

Michael Stott and Sean Leach, Partners at Mathys & Squire, highlight the differences of Eligibility Examination as they currently work in the USPTO and EPO.

The EPO has again topped the rankings of the world's five largest patent offices by users for the quality of its patents and services in Intellectual Asset Management (IAM) Magazine's 2018 survey. In contrast, the U.S. patent system has fallen to 12th place in the US Chamber of Commerce's Global IP Index for 2018, continuing a six-year downward trend in its patent ranking, which the US Chamber has attributed to a patent system that currently creates "considerable uncertainty for innovators". This article provides a whistle-stop tour of the approaches taken to patent eligible subject-matter requirements at the EPO and USPTO and considers, from the European perspective, whether there are any signs of increasing convergence in their approaches.

Computer-implemented inventions

It is established practice at the EPO that for computer-implemented inventions to be considered patent eligible, the claimed subject-matter for which protection is sought must have technical character; the problem solved by the invention must be technical, in contrast to those which are for instance purely financial, commercial or mathematical.

The EPO's approach is to first assess whether the claimed subject-matter has features having technical character so as to be eligible subject-matter. Those features identified as having technical character are then considered as part of the subsequent novelty and inventive step assessment. The EPO allows claims that include both non-technical and technical features. Whilst no features of the claim are ignored, purely non-technical features cannot contribute to the consideration of inventive step.

Recent EPO Board of Appeal decision, T 1463/11, usefully sheds more light on how to separate technical aspects of a claim from the non-technical, particular those relating to commercial aspects. In that case, the Board made it clear that a notional business person could not have any technical knowledge and that business considerations that are at least partly technical are relevant to the knowledge of the skilled person and therefore cannot be disregarded when considering the technical solution offered by the claimed subject-matter.

The latest edition (November 2018) of the EPO's Guidelines for Examination includes several new sections that have been added with the aim of providing more clarity on the requirements for patentability of computer-implemented inventions, including:

- Cases where the invention is realised in a distributed computing environment;
- Mathematical methods;
- Artificial intelligence and machine learning;
- Claims directed to methods of simulation, design or modelling; and
- Programs for computers.

Of particular note, the new section on mathematical methods provides a number of helpful examples of technical purposes which may be served by a mathematical method to help support the presence of an inventive step. These include:

- encrypting/decrypting or signing electronic communications; generating keys in an RSA cryptographic system;
- optimising load distribution in a computer network; and
- providing a medical diagnosis by an automated system processing physiological measurements.

Although the updates to the Guidelines may not

Résumés

Michael Stott
Michael is a Chartered and European Patent Attorney with expertise in drafting and prosecution of patent applications in the UK and Europe and managing global patent portfolios. His principal areas of technical expertise are petrochemistry, chemical processing, pharmaceuticals and food chemistry.

Sean Leach
Sean is a Chartered and European Patent Attorney with expertise in the drafting of IP agreements and IP licences, and in the drafting and prosecution of European and British patent applications. His principal areas of technical expertise are electronics, medical devices, and software.

necessarily signal that patenting computer-implemented inventions is set to become easier at the EPO, they do at least provide a little more certainty and predictability which is likely to be appreciated by applicants.

A lack of such certainty and predictability has been the major criticism of current US practice as it grapples with issues of eligible subject-matter, particularly as they relate to computer-implemented inventions, following the Alice1 and Mayo2 Supreme Court decisions. As a result of these decisions, the USPTO follows an "Alice-Mayo" framework for determining whether claimed subject-matter is patent-eligible. The two-part test first identifies whether the claimed subject-matter is directed to a judicial exception (abstract ideas, laws of nature, natural phenomena and products of nature). The second step determines whether the claim recites additional elements that amount to "significantly more" than the exception, which has been described by the Supreme Court as the "search for an 'inventive concept'".

Certainty over what is required in order to pass the second part of the test has historically been elusive, and there has been criticism that the USPTO's assessment of the second part, which includes analysis of the contribution of a claim element over what is well understood, routine and conventional to a skilled person, is overly restrictive. This year's Berkheimer3 decision has been seen by many as a softening of such an overly restrictive approach. The Court in that case actively looked to the specification to determine what features of dependent claims could be considered unconventional (so as to pass the second part of the test), and clarified that whether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent, is a factual determination and goes beyond what was simply known in the prior art.

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The Berkheimer3 decision has since led to issue of a memorandum by the USPTO revising previous procedures set forth in the Manual of Patent Examination Practice (MPEP) and places a greater burden on examiners for substantiating objections that claimed elements are well-understood, routine, and conventional. The USPTO's Director, Andreu Iancu, has stated a commitment to provide further certainty and predictability of eligibility analyses. At last month's Intellectual Property Owners Association Annual Meeting, Iancu discussed proposals for new guidance which would synthesize "abstract ideas" as falling into the following three categories:

- Mathematical concepts
- Certain methods of organizing human interactions, such as fundamental economic practices commercial and legal interactions; managing relationships or interactions between people; and advertising, marketing, and sales activities
- Mental processes, such as forming an observation, evaluation, judgment, or opinion.

If the claims do not recite subject-matter categorized on the above basis, then the subject-matter eligibility assessment effectively comes to an end. If they do, then more analysis is undertaken to decide whether the claims are "directed to" those categories. If the claim integrates the exception into a practical application, then the claim is not "directed to" the prohibited matter. This analysis does not consider

conventionality (i.e. whether the integration is conventional), thereby more clearly separating considerations of eligibility and obviousness, nor does it deny claims as ineligible merely because they are broad or functionally-stated or result-oriented. If, nevertheless, the claim is still considered to be considered "directed to" the above categories, then the assessment moves to the second part of the Alice-Mayo test.

The proposed revised approach would seem to offer more simplicity in determining eligibility and separate that assessment from obviousness or claim breadth considerations. This would appear to be a welcome move more in the direction of the EPO's approach to eligibility assessment which, once technical character has been identified, moves the assessment to one of inventive step.

Methods of treatment and diagnostic methods

Both the EPO and USPTO consider discoveries of natural phenomena not to be eligible for patent protection in and of themselves. Nevertheless, technical applications underpinned by such discoveries can be allowable at both the USPTO and the EPO.

At the EPO, there is the general exclusion from patentability of methods of treatment and diagnostic methods that are practiced on the human or animal body (Article 53(c) EPC). There is of course, if applicable, the option to reformat a method of treatment or diagnosis claim as a medical use claim (i.e. purpose limited product claim). However, this option is not available where the particular product which is the subject of the use relates to an apparatus and not a compound or a composition.

Nevertheless, a method that is not practiced on the human or animal body (i.e. can be carried out separately from the body) can be patent eligible at the EPO. Alternatively, where the claimed method (either explicitly or implicitly) does not involve all the necessary steps to arrive at a clinical picture and achieve a diagnosis, such a method can also be patent eligible (although a diagnostic method cannot be made patentable at the EPO simply by omitting one or more steps, where the omitted steps are in fact essential features of the method).

Whilst the USPTO might have been considered more flexible in, for instance, allowing method of treatment/diagnostic format claims, in contrast with the EPO, the changes in the patent eligibility assessment discussed above have also heavily impacted examination of such medical inventions at the USPTO in the wake of the Mayo2 decision. This has given rise to rejections that such methods are in fact "directed to" a judicial exception. Nevertheless, the recent Vanda4 decision, which considered patent eligible a method of treatment claim comprising, determining, obtaining, performing and administering steps, has helped to some extent to clarify the difference between methods that apply natural relationships rather than being "directed to" them. Usefully, a memorandum addressing this decision has also been issued by the USPTO which further highlights that it is not necessary for method of treatment claims at the USPTO that practically apply natural relationships to include non-routine or unconventional steps (i.e. as part of the second step of the Alice-Mayo test) to be considered patent eligible. In effect, method of treatment claims that practically apply natural relationships pass the Alice-Mayo test at the first hurdle.

Following the recent decisions in Berkheimer3 and Vanda4, as well as the USPTO Director's commitment to providing more certainty and predictability in eligibility analyses and proposals for guidance changes, it seems that there is the intent to move away from the overly restrictive approaches born from Alice1 and Mayo2 and perhaps back in a direction more aligned with the EPO's current approach. It remains to be seen whether or not in practice that is the reality.