The US Supreme Court has recently heard oral arguments in the well-publicised case of *Alice Corp v CLS Bank Intl*, and is expected to deliver its judgment shortly. The case has attracted considerable interest from the software industry. For example, 42 amicus briefs were filed on behalf of companies and organisations, including the Institute of Electrical and Electronics Engineers, in view of the potential for the Supreme Court to provide new guidance on the patentability of inventions realised in software.

In another recent case, *Bilski v Kappos*,1 the US Supreme Court held that the patents at issue did not meet the fundamental conditions for patentability, as set out in 35 USC Section 101. Although there are no equivalent exclusions to the patents-in-suit, in the language of Article 52 of the European Patent Convention (EPC), claims to such subject matter might be challenged under both the “programs for computers” and “methods for doing business” exclusions to patentability. However, equivalent exclusions do not exist in Section 101. Instead, in drafting that legislation, Congress’ aim was that “anything under the sun that is made by man” should be patentable.2 The language of Section 101 reflects this, “any new and useful process, machine, manufacture, or composition of matter” is patentable and the only exclusions, “laws of nature, physical phenomena and abstract ideas”, are judicially-made.2

In another recent case, *Bilski v Kappos*, the US Supreme Court held that a method of hedging losses by making investments in other segments of the same industry was an abstract idea and therefore unpatentable.3

Alice argues that its patents resolve difficulties in dealing sequentially with transactions across multiple time zones, that the scope of their claims is narrower than the abstract idea of “solvency”, and that the invention could only be implemented on a computer. It further argues that excluding computer software and business methods from patentability would render hundreds of thousands of patents invalid and have “utterly unknowable consequences”. CLS argues that the patents should be excluded instead by extension of the “abstract ideas” line of cases. Mayo established that only “fundamental truths” are unpatentable and CLS argued that this restriction should apply not only to “laws of nature and physical phenomena” but also to the third judicial exemption, “abstract ideas”. Some commentators observe that the decision to exclude computer software or business methods from patentability per se should be a step for Congress rather than the result of judge-made law. However, the court has not shied away from taking such a step previously; the three current exclusions from patentability were themselves judge-made in *Diamond v Chakrabarty*, in contrast to the position in Europe. The interest in Alice principally stems from the opportunity for the US Supreme Court to develop an EU-style general exclusion from patentability for software.

Excluded subject matter in England and Europe

In Europe, patent legislation is harmonised under the EPC. Methods for doing business and programs for computers are specifically excluded from patentability,4 although only insofar as the invention relates to the excluded subject-matter “as such”.5 There have been historic differences in the approaches taken by the European Patent Office (EPO) and the English court in assessing the scope of these exclusions. Notwithstanding recent indications by the English courts that settled EPO jurisprudence should generally be followed, some distinctions remain.

The English Court of Appeal considered software patentability in *Aerotel v Telco Holding*,7 where Lord Justice Jacob set out a four stage test:

- Properly construe the claims.
- Identify the actual contribution [of the patent].
- Ask whether it falls solely within the excluded subject matter.
- Check whether the actual or alleged contribution is actually technical in nature.

Jacob LJ acknowledged that there is “pressure from would-be patentees on patent offices” and that because patents for business methods and computer programs had been granted in the US, “an arms race in which the weapons are patents has set in... Just as with arms, merely because people want them is not sufficient reason for giving them”. By focusing on the actual contribution of the patent when assessing whether or not the claimed subject matter falls within the scope of an exclusion, the court does so in the context of the prior art rather than in isolation. He stated that the approaches taken in the EPO had been inconsistent and invited the Enlarged Board of Appeal of the EPO to consider a list of proposed clarificatory questions. The EPO considered such a referral unnecessary, but the Technical Boards nevertheless criticised *Aerotel* and continued to adopt their own approach. In *Symbian v Commissioner General of Patents,*8 the English Court of Appeal subsequently held that the approaches of the English courts and the Technical Boards of Appeal were “on a fair analysis, capable of reconciliation” despite each being “rather deprecatory about the approach of the other”.

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1  *Bilski v Kappos*.
2  *Diamond v Chakrabarty*.
3  *Bilski v Kappos*.
4  *Mayo Collaborative Services v Prometheus Lab*.
5  *Mayo*.
6  *CLS*.
7  *Aerotel v Telco Holding*.
8  *Symbian v Commissioner General of Patents*.
Software patentability

Following Symbian, and in light of apparently inconsistent Technical Board of Appeal decisions, the matter was eventually referred to the Enlarged Board of Appeal.9 The referral attracted around a hundred amicus curiae briefs. The Enlarged Board clarified that the relevant test is that in order to be patentable, the invention should bring about a “technical effect which goes beyond the normal physical interactions between the program (software) and the computer (hardware) on which it is run”.10 The EPO’s test therefore considers the patent in isolation when determining exclusion from patentability, but nevertheless permits the patenting of software-implemented inventions if a technical effect can be identified. The further technical effect need not be new.11 However, although it is legitimate for non-technical features to form a major part of the claimed subject-matter,12 the non-technical features are stripped out when going on to consider whether the claimed contribution over the prior art is obvious.13

Recently, in Apple Inc v HTC Corporation,14 the Court of Appeal has again endorsed the Aerotel approach, while indicating by reference to EPO case law that the EPO’s “technical effect” approach should lead to the same result.

These differences reflect some of the options presented to the US Supreme Court in Alice; it might exclude the Alice patents from patentability (with or without reference to the prior art), or indicate that even if Section 101 is satisfied, they may lack inventive step.

The number of amicus curiae briefs submitted to the Enlarged Board would likely not have come as a surprise to the EPO; there have been a number of flash points in the evolution of the European approach to software patents. The original guidelines set by the EPO in 1978 required the contribution to the known art to extend beyond a computer program, but it subsequently allowed consideration of the invention as a whole. Two cases in the late 1990s involving a recorded image saw the proposed legislation as a direct threat to the GNU General Public License (GPL) model,15 among other issues. The European Parliament voted against the directive and it was eventually dropped.

The future for software patents and the UPC

The Agreement on a Unified Patent Court (UPC) was published by the Council of the European Union on 11 January 2013. Subject to ratification and the necessary infrastructure being put in place, the UPC is currently expected to be operational from the beginning of 2016.

The UPC will hear revocation and infringement actions involving new unitary patents and existing European patents (unless opted-out), with its decisions reaching across the 25 participating states. The new court system will eliminate the need to litigate patents separately in each of the designated territories, as (after a transitional period) a granted European patent application will no longer result in a bundle of national patents – but rather a unitary patent covering all participating countries. Article 24 of the Agreement lists the legislation on which the court shall base its decisions and includes the EPC, EU unitary patent regulations and national laws. It remains to be seen how the judges of the new UPC will interpret Article 52 and whether, in doing so, they will reassess the exclusion to patentability in relation to computer software. It also remains to be seen how differences in approach between EPO case law and national precedents will be resolved at the UPC level.

Furthermore, electronics and software consortia have made extensive representations in relation to the Rules of Procedure that will govern the operation of the UPC. The threat of an EU-wide injunction resulting from a single judgment constitutes considerable leverage for patent holders, and there is a concern that vague software patents are prime targets for non-practising entities (often pejoratively known as patent trolls) to purchase and assert.

The concerns regarding a balanced approach to the patentability of software-implemented inventions therefore remain – is there a risk that monopolies might be granted that unfairly restrict development, or is innovation hindered by the lack of valuable protection for the results of research and development? It is clear that software patents will continue to grow in importance and number. The legal issues raised touch upon many of the key areas of ongoing debate in patent law: When should a monopoly be granted over an invention? When is an invention actually a discovery or a fundamental truth? What is meant by a technical solution or an abstract idea? While Europe’s system of statutory excluded subject matter may, with narrowly-interpreted exclusions, slowly be moving towards a US-style patent system for computer software, depending on the outcome of Alice, the US may move closer to Europe first.

Footnotes
1. Diamond v Chakrabarty, 447 US 303 p309 (Supreme Court).
2. Id.
5. Article 52(2)(c) EPC.
6. Article 52(3) EPC.
10. G 0003/08 Programs for computers, Para 10 2 1.
15. T 1194/97 Data structure product/PHILIPS and T 1173/97 Computer program product.
18. The GNU GPL licence is the most widely used free software licence. It guarantees end users the right to use and modify software provided that these rights are passed onto any distributed versions, including modified versions.

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