

Germany

Digital data products: no end to patent piracy

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Background

In the late 1880s the German chemical industry raised concerns about patent piracy by competitors, which were implementing production processes patented in Germany for chemicals in countries without patent protection (eg, Switzerland) and importing products created by such patented processes into Germany.

A proposal to extend patent protection to products of a patented process was introduced in order to stop such fraudulent behaviour by so-called 'patent pirates' (a term used by a government commission in its report on the final proposal dated May 20 1891). Thereby, imported chemicals produced in countries where a process was not patented, but rather obtained in accordance with a process patented in Germany, would constitute patent infringement in Germany. As protection would extend to products of a patented process, the location of the production plant would become irrelevant. In view of the fact that the competitors in these cases made use of an invention and generated profits in the territory where the patent was valid, such proposed protection seemed to be in line with general ideas related to IP rights.

Furthermore, in cases where a product created by a patented process was a new product, any product identical to this new product would be deemed to have been produced by the patented process. This was to prevent the chemical industry from being disadvantaged compared to the mechanical industry, as proving that a patented process has been used for mechanical products is typically

easier than to do so for chemicals.

It was indicated that competitors operating in countries without patent protection did not tend to admit use of the patented process; there are few reasons to suggest that this has changed much over the last 120 years.

Both proposals were adopted in the Patent Act 1891.

The Paris Convention for the Protection of Industrial Property was revised by the Revision Conference of Lisbon in 1958. The Swiss delegation initiated the adoption of the above-mentioned regulations protecting products created by a patented process. The Swiss chemical industry had developed a protection requirement similar to the German chemical industry 60 years earlier. Consequently, new Article 5^{quarter} was added to the Paris Convention, which introduced a provision protecting products created by a patented process for all member states. The United States adopted a similar rule in 1988.

Meanwhile, the Paris Convention became mandatory under the Agreement on Trade-Related Aspects of IP Rights in 1993 and, accordingly, all members of the World Trade Organisation transposed similar rules into national law.

Although revisions to patent law were promoted by the chemical industry, the resulting regulations were intentionally not restricted to chemicals. Nevertheless, this aspect of patent law failed to have a major impact outside of the chemical industry.

However, the onset of the digital age has induced a variety of patented processes for creating data (eg, for the purpose of compression, transmission, storage) and, accordingly, this aged idea has found a new platform.

The digital age

In the digital industry – even more so than in the chemical industry – once a technical innovation becomes public, it is relatively easy to copy. It is also easier to copy data created by a patented process. Thus, the campaign to protect products created by a patented process is gaining momentum.

One of the most prominent targets is disc replicators. A disc replicator produces, for example, DVDs storing digital content, usually video content. The replicator either copies the coded content on a multitude of discs or additionally encodes the source content – by making use of patented compression methods – before copying it onto a multitude of discs.

Operating as a disc replicator is simple. Plants can be set up and discs are easy to ship anywhere. Consequently, evasion from countries providing patent protection to disc replicators is always an issue.

Recent case

It is thus no surprise that in August 2012 the German Federal Supreme Court ruled against a DVD replicator based on a patent granted for a method of compressing video data. The Federal Supreme Court confirmed protection for compressed data as a product created by a patented process. The court further confirmed that the fact that the patented process was followed by other – potentially also patented – processes did not preclude protection for the final data product, provided that the characteristic properties of the process at stake were preserved through intermediate products. This issue has been discussed for decades in legal literature. The Senate of the Federal Supreme Court responsible for patent law issues confirmed in addition that protection also extends to identical copies of data created by a patented process.

Interestingly, in the oral hearing the Federal Supreme Court stated that it would have to consider the decision independently from the question of the physical substrate for the data. Data may be stored permanently (eg, on a DVD) or temporarily (eg, in the random access memory of a computer) or may be subject to transportation via the modification of an electromagnetic field, tethered or wireless.

Thus, there is no reason to believe that the Federal Supreme Court will not transfer the findings of earlier decisions, which confirmed that the lack of a permanent physical substrate cannot be decisive for the question as to whether a data product can be protected, to data products created by a patented process.

By this latest decision, the Federal Supreme Court clarified that, from a legal point of view, in relation to patent protection, there is at most little difference between mechanical or chemical products on one hand and digital data products on the other.

Digital data products

Based on decisions of the Federal Supreme Court, the introduction of a digital data product with the characteristics of a data entity would be justified, independent of the issue of whether the data is permanently physically stored (eg, on a disc carrier) or transported via transmission channels making use of physically non-permanent changes of electromagnetic fields.

A mechanical product – and potentially a patent-infringing product – is also independent from its storage or packaging, as well as its method of transportation (eg, ship, truck or train).

Digital data products must be physical entities, as otherwise they could not be read by any means. They can be stored not only mechanically (eg, on a disc carrier), but also electronically. They can be transported mechanically by a DVD or electronically via cable or wireless technology. The fact that duplication, erasure and transport – usually called ‘transmission’ – are fast and easy seems to bear no relevance to the question of whether patent protection applies. In the field of mechanics, it would be strange to discuss the question of patent infringement dependent on the issue of how difficult it was to copy the product.

As a result, a digital data product is a normal product like a mechanical or chemical product. It can be patent protected – either as a product of a patented method or by itself – and thus enjoys all of the privileges of a patented product (ie, it cannot be offered, marketed, used, imported or possessed without the patent owner’s consent).

Digital data products can be created by any process of data generation. The generation of compressed data based on source data and the generation of additional data to structure source data is considered to be data generation. In contrast, data treatment (eg, writing data in a random access memory) does not generate a new digital data product. In cases where the data characteristics are at least partially changed, a new digital data product is created. Provided that the characteristics of the data generated by previous processing are preserved, the digital data product is still a direct product of that process.

Digital data products in the marketplace

In view of enforceability, digital data products typically contain properties that make it easy to identify whether a certain process has been applied to create the product. To enable the data characteristics created during data generation to be used, a digital data product will always carry a corresponding identifier. The simplest case is a computer file being provided with a file name extension (eg, '.doc', '.pdf'). Any audio or video files are linked by identifiers in the bitstream to the corresponding encoder used. In most cases, physical carriers already link their data content to the generation processes by their name. A video DVD comprises MPEG-2 coded video content. Without identification of the 'type' of digital data product, the digital data product is useless.

Based on this identification, a digital data product can be linked to the processes used when creating it. Any party which is in possession of a digital data product can be easily informed by the patent owner as to whether a patented process was involved in creating it. In view of the limited number of digital data product types, the identification can be automated. Based on this identification, verification of the need for a licence can also be automated, based on information from the patent owners. This can be used by patent owners to find infringing digital data products on the Internet. Compared to the identification of copyright infringements, this should be a much easier task.

Furthermore, patent law qualifies the possession of a digital data product as a patent

infringement. This enables the patent owner to prevent distribution of unlicensed digital data products by electronic services, as service providers come into possession of a digital data product during the course of transmission. Typically, it can be much easier to compel a service provider to comply with the law than the party offering the digital data product. In this context, establishing digital rights management for digital data products generated by patent-protected processes is an obvious task. This is imperative in order to identify whether a specific digital data product is licensed.

The legal assumption that in cases where the product created by a patented process is a new product, any product identical to this new product is deemed to be have been produced by the patented process, is irrelevant in the present case because, based on the identification of the type of the digital data product, processes can be immediately identified in many cases. The best example is digital data products generated by standardised technologies.

Defending patent piracy

By providing the basis for the concept of digital data products, the German Federal Supreme Court offered a convincing additional opportunity to patent owners to improve their enforcement strategies in the digital age. Internet service providers may become obliged to play a key role in the enforcement of patents on processes of data generation, as they control and operate transmission streams. Patent owners must establish state-of-the-art digital rights management and provide proof of patent infringement by the users of patented processes. This will enable service providers to prevent patent infringement and curb patent infringement by third parties.

For the legal service sector it will be a challenge transferring German intelligence to other jurisdictions. For patent owners the task will be to make use of legal instruments. Promoting innovations and strengthen the defence against product piracy is a mission which has been ongoing for centuries, and it is a well-founded assumption that it will always remain at the crux of this research-based industry. **iam**

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