Kluwer Patent Blog

Between labs and algorithms: can patent law's research exemption learn something from the TDM exception in copyright law?

Joana Piriquito Santos (NLP Law firm) · Tuesday, June 10th, 2025

This year, at the Annual Fordham IP Law & Policy Conference, we heard Lord Justice Birss reflect on how we are living through a transformative era in intellectual property (IP) law. In the age of artificial intelligence (AI), some voices have gone so far as to call for the abolition of IP rights altogether.

Yet, the core question remains: does IP law truly foster innovation? And how can legislation fairly balance the rights and interests of authors and inventors with those of the public and users?

One way legislators have sought to strike this balance is by introducing exceptions and limitations to the exclusive rights granted under IP law, within the bounds of international law – such as those set out in Articles 13 and 30 of the TRIPS Agreement for copyright and patents, respectively.

Traditionally, copyright and patent laws have been treated as entirely separate disciplines. However, the **text and data mining (TDM) exceptions** introduced by Articles 3 and 4 of **Directive (EU) 2019/790 on copyright and related rights in the Digital Single Market ("DSM Directive")** should not go unnoticed by patent professionals – especially in light of recent decisions and discussions. Notable examples include *Kneschke v. LAION* ruling from Germany (see references here, here and here), the *DPG Media v. HowardsHome* ruling from the Netherlands (see here) and a recent decision from the Municipal Court of Appeals of Hungary (see here).

This has prompted the author to reflect on the **research exemption in patent law**, as specifically set out in Article 27(b) of the **Unified Patent Court Agreement (UPCA)**. Said provision states that the rights conferred by a patent shall not extend to "acts done for **experimental purposes relating to the subject matter of the patented invention**". Article 27(d) of the UPCA provides for the so-called bolar exemption currently under revision in one of the biggest reforms on pharmaceutical legislation (see here and here).

The question is whether these seemingly distinct exceptions—one rooted in copyright law, the other in patent law—might start to converge in their rationale or application, particularly in an era of AI and large-scale data-driven innovation, **where patents also play a pivotal role**.

AI is generally considered a branch of computer science and, as such, inventions involving AI are

often classified as *computer-implemented inventions* (see, for example, Index for Computer-Implemented Inventions). AI does not only disrupt traditional notions of inventorship, it also complicates the landscape of potential infringement. So, is the current research exemption to patent protection truly fit for an AI-driven research environment, where autonomous lab equipment or an algorithmic design exploration play increasingly central roles? And how can a patentee determine whether their patented method is being used – and, if so, whether that use is lawful or not?

Let us first look at the TDM exception in copyright law to then examine what insights it might offer for the research exception in patent law.

The TDM Exception in Copyright Law

Article 3(1) of the DSM Directive establishes a mandatory exception to copyright and related rights, allowing research organisations and cultural heritage institutions to **reproduce and extract lawfully accessible content for the purposes of scientific research through TDM**. In addition to the requirement of lawful access (see especially Recital 14), this exception includes several safeguards for rightsholders:

- Copies made under the exception must be stored securely and may be retained for scientific research purposes, including the verification of results (Article 3(2)).
- Rightsholders may apply proportionate measures to protect the security and integrity of networks and databases hosting the content (Article 3(3)).
- Member States shall encourage the development of best practices among rightsholders, research institutions, and cultural heritage organisations regarding these obligations and measures (Article 3(4)).

From this, it can be concluded that the EU legislator intended to:

- Establish a **uniform exception** to copyright across Member States;
- **Enable AI-related research**, including the use of copyright-protected works and subject matter for pre-training and training of AI models. While this view remains debated, it is broadly accepted in scholarship and reiterated in recital 105 of the Artificial Intelligence (AI) Act. For a critical analysis of the AI Act's implications for the EU copyright acquis, see Generative AI, Copyright and the AI Act by João Pedro Quintais :: SSRN);
- Ensure that content used is **lawfully accessed,** including through contractual arrangements, open access policies, other lawful means, or content freely available online – subject to consistency with the three-step test);
- Limit the exception to **specific acts:** reproductions and extractions;
- Define **who** can benefit from it: research organisations and cultural heritage institutions;
- Clarify the **purpose:** scientific research.

It should also be noted that **Article 4** of the Directive – which will not be discussed in detail here – permits TDM by other entities, including for commercial purposes, unless the rightsholder has expressly opted out using appropriate means.

The Experimental Use Exception in Patent Law

For its part, Article 27(b) of the UPCA:

- Is **not an instrument of EU law**, and it is debatable whether the Contracting Member States

intended to harmonise their domestic patent laws through the UPCA, particularly regarding the limitation of the effects of European patents without unitary effect (as discussed previously in this blog here).

- Refers to **"acts for experimental purposes"** related to the subject matter of the patented invention, without specifying the exact acts covered, but seemingly limiting these to activities predominantly aimed at gaining knowledge about the patented invention, while excluding commercial uses.
- Contains no **restriction based on technology field**, thus also applying to AI-driven research. However, the underlying assumption is still one of **human-led laboratory research**.
- Provides no **safeguards** to the rightsholders in case the invention is used under the exemption.

These features reveal several vulnerabilities in the current formulation of the research exemption under the UPCA, which could present significant challenges for litigators in cases involving automated AI-driven research. This is not only due to the lack of harmonisation across Member States, but also because of the lack of clarity regarding the scope of permitted acts, and the absence of field-specific guidance or safeguards for rightsholders.

The dialogue between the two exceptions

Considering the above, are there elements of the copyright TDM exception that could inspire future developments in patent law? **Could a more nuanced and AI-aware version of the research exemption be on the horizon?**

As a preliminary remark, it is worth noting that legitimate concerns have been raised that the scientific TDM exception may be potentially misused to facilitate commercial activities in the context of AI – despite the safeguards outlined above. It is, therefore, not surprising that **Portugal, Spain and Italy are advocating for the protection of authors' rights** and have placed this issue—along with the revision of the current Code of Practice under the AI Act—on the agenda in Brussels (see here).

Nonetheless, the research exception under patent law may have valuable lessons to draw from the TDM exception. Any meaningful reform would need to take into consideration the following points:

- **A clear and harmonised framework at the EU level**;
- **A precise definition of the acts covered by the exception**, while preserving its core experimental purpose — namely, the acquisition of knowledge concerning the patented invention;
- **A reassessment of the exception in light of AI-driven research**, which is increasingly foundational to scientific progress. This should include a careful evaluation of whether the exception ought to extend to TDM or training-related automated AI technologies — bearing in mind that this move could risk broadening the scope of the exception;
- **The introduction of safeguards for patent holders**, allowing them to monitor the lawful acquisition and use of patented inventions. This is even more pressing given the difficulties in detecting infringement of method patents, which are common in the field of computer-implemented inventions.

Conclusion

As the boundaries between research and commercial use continue to blur in the era of AI, IP law must adapt to uphold its foundational goals: to foster innovation while ensuring access to knowledge. Drawing lessons from the TDM exception in copyright law, patent law may reflect the realities of AI-driven scientific discovery. A balanced reform would lead to a clear safeguard for the legitimate interests of patentees, while providing legal certainty for those engaging in responsible and lawful research. The time may well be right to reframe the patent research exception – before ambiguity gives way to conflict.

To make sure you do not miss out on regular updates from the Kluwer Patent Blog, please subscribe here.

This entry was posted on Tuesday, June 10th, 2025 at 12:26 pm and is filed under AI, Legislation, Patents, UPC
You can follow any responses to this entry through the Comments (RSS) feed. You can leave a response, or trackback from your own site.