

Book review: Marco Antonio Mariscal  
Moraza, *Protección Jurídica del Software*  
(Reus 2022)

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In 2011, Marc Andreessen wrote “Software is eating the world.”<sup>1</sup> By now, the world has been digested and compressed using computational techniques, reduced to very large models, which are at the core of the current Artificial Intelligence Revolution.<sup>2</sup> Software is at the center of contemporary lives.

The legal protection of software was the subject of a raging debate until the 1980s. By 1991, when the Computer Programs Directive (Directive 91/250/EC) was enacted, the matter was pretty much settled – software was to be treated as a literary work. This was set in stone at an international level through Article 10 of the TRIPS Agreement (1994) and Article 4 of the WIPO Copyright Treaty (1996). According to these rules, code (written by developers using programming languages) is to be treated essentially like (copyright-protected) text.

Nevertheless, that assimilation still required special rules, most of them explained by the functional nature of the subject matter and the entrepreneurial nature of its commercial exploitation. As US Courts have stated multiple times “Applying copyright law to computer programs is like assembling a jigsaw puzzle whose pieces do not quite fit.”<sup>3</sup> Unlike a play, a poem, or a diary, source code does not express the personality of its author to the same extent. Also, most of the software is written in the context of a company, by large teams, who continuously change it. Furthermore, using that code always requires that copying takes place (unlike reading, which, at least on paper, is not a copyright relevant act). On the other hand, given the essentially functional nature of software, the idea-expression dichotomy (a fundamental principle in copyright law according to which copyright protection does not apply to ideas, but rather to expressions) became a fundamental, yet contentious aspect. Case law on both sides of the Atlantic has had trouble dealing with non-literal copying of computer programs, struggling to distinguish the protected from the non-protected elements.

More than thirty years have passed since that Directive was enacted and it is apparent that software has evolved dramatically since the early nineties. Cloud computing and machine learning were not on the scene. In the last decade, there have been some relevant preliminary rulings which have further clarified the

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1 <https://a16z.com/why-software-is-eating-the-world/>

2 CHIANG (2023).

3 *Lotus Development Corp. v. Borland Intern*, 49 F.3d 807, 820 (1<sup>st</sup> Cir. 1995)

scope of certain rules,<sup>4</sup> but there is still a significant number of open questions,<sup>5</sup> and some authors claim that the current regime needs rethinking.<sup>6</sup>

In this context, a book such as *Protección Jurídica del Software* (The legal protection of software) written by the Spanish lawyer Marco Antonio Mariscal Moraza and published by Reus in 2022 is not only timely but also extremely useful.

The book, which is based on the Author's PhD dissertation, starts with a prologue by Jorge Ortega Doménech (who was the dissertation supervisor) and a short introduction by the author. Ten chapters follow, divided into two parts. The focus is on the analysis of the Spanish transposition of Directive 91/250/CE (replaced by Directive 2009/24, a codified version that did not change anything substantial).

The first chapter provides the reader with basic technical notions about software and its development. These are already aimed at improving the understanding of the legal provisions. For example, the author explains how most applications must be loaded in random-access memory (RAM) and, therefore, imply a need for a reproduction of a copyright-protected work in order to be used. This first chapter also includes a detailed description of the development methodology for computer programs, a complex endeavor involving multiple steps and usually a big team. This is, of course, relevant for understanding authorship and ownership rules.

The next chapter tackles the discussions leading to the enactment of the 1991 Directive and its transposition in Spain. In fact, although the legal status of software has been discussed since the 1960s, it was only in the 1980s that software started to be regarded as an autonomous good, valuable in itself and separate from the hardware.<sup>7</sup> At a European level, the 1973 European Patent Convention excluded the protection of computer programs as such (Art. 52 EPC). In 1972, the US Supreme Court had also rejected the protection of algorithms by patents (due to their mathematical nature).<sup>8</sup> In 1980 the USA took the lead and included computer programs in its copyright law. By the 1990s the matter was

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4 C-393/09, *BSA* (EU:C:2010:816); C-406/10, *SAS* (EU:C:2012:259); C-128/11, *UsedSoft* (EU:C:2012:407); C-355/12, *Nintendo* (EU:C:2014:25); C-666/18, *IT Development* (EU:C:2019:1099); C-13/20, *Top System* (EU:C:2021:811).

5 E.g., at the time of writing the BGH presented a preliminary ruling request to determine whether the changing of variables of a computer program in working memory (RAM) performed by a different computer program constitutes an alteration within the meaning of Article 4(1)(b) of Directive 2009/24 (C-159/23, *Sony*).

6 E.g., CHEN (2021) and PIGHT, THOUVENIN (2023).

7 This also marked the birth of the open-source movement with the announcement of the GNU Project, posted by Richard Stallman on September 27, 1983.

8 *Gottschalk v. Benson*, 409 U.S. 63.

decided: even though patents and sui generis regimes had been considered, the protection of code ended up being brought to the field of copyright law.

The third chapter starts dealing with the substantive regime focusing on the object of protection. The next chapters follow the same line, addressing authorship (fourth), duration (fifth), economic and moral rights, including exceptions and limitations (sixth).

The author analyses the regime from a Spanish law point of view but does not shy away from comparative law. Nevertheless, I believe the discussion on the compatibility of certain Spanish solutions with EU law (e.g. the non-protectability of harmful software) is missing. Some decisions of the Court of Justice are also not thoroughly analyzed or even mentioned (e.g., C-355/12, *Nintendo* about videogames or the sequence of case law that started with C-5/08, *Infopaq* (EU:C:2009:465) and harmonized the notion of work at EU level).

The entrepreneurial nature of software development has led the EU to adopt special rules on authorship (art. 2 of Directive 2009/24). The general topic of copyright ownership is the one where Member States diverge the most. However, in this case, most Member States went further than what the Directive required (namely, by also applying the rules to commissioned works, like Portugal did, and/or by considering legal persons as authors) and converged on rules that will attribute the economic rights on software to the companies. Spain did not extend the assignment rule to commissioned software but took the controversial option of considering software collective works and, therefore, attribute authorship to legal persons. The fourth chapter of the book goes into detail on these discussions, referencing case law and commentators.

The duration of copyright protection for software, although perceived as too long, does not have many particularities. In fact, although that is a common critique, it is also true that some computer programs written in the COBOL language and running on mainframes are still powering important systems more than 60 years after their creation.<sup>9</sup> The fact that legal persons can originally own copyright in software leads to a 70-year term in those cases (rather than 70 years post mortem auctoris). The more complex question is the duration of moral rights in those situations. Marco Antonio Mariscal submits that they should be limited to the duration of economic rights. Another interesting aspect discussed is the practical applicability of the orphan works rules to software.

The sixth chapter is the most extensive (pages 179 to 345) and is split into two parts: economic and moral rights and exceptions and limitations. Economic rights have particularities, which the author explores in great detail, but the

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<sup>9</sup> See, e.g., CNN Business, *Wanted urgently: People who know a half century-old computer language so states can process unemployment claims* (<https://edition.cnn.com/2020/04/08/business/coronavirus-cobol-programmers-new-jersey-trnd/index.html>).

general rules and conceptual framework will still apply most of the time.<sup>10</sup> On the other hand, the Directive does not mention moral rights, but, by subjecting software to copyright law, the minimum standards of the Berne Convention (art. 6bis) must apply. However, the moral rights in the case of software should be compressed – it is easily understood that source code and a poem don't have the same degree of personal connection to the author and the practical necessities of changing software are ever-present. Exceptions and limitations are tailored to the reality of software – using a computer program always requires the making of copies and achieving interoperability is only possible with specific liberties. The issues of decompilation and black-box analysis have always been particularly contentious.

After having presented software in great detail from a static point of view, the book turns to the dynamic aspects, i.e., contracts, dealing with commercial licenses (chapter 7), and the special case of open source in Chapter 8, which the author includes in the field of contracts (some authors treat open source licenses as authorizations or “bare licenses”). Spain has interesting provisions at the national and autonomic levels on the use of open-source by the public sector. In fact, the rules on software contracts remain Member-State specific. The Copyright in the Digital Single Market Directive (Directive 2019/790), which harmonized some copyright contract law rules for the first time, excludes software from its scope (art. 23/2), maintaining that state of affairs.

Chapter 9 deals with the role of software-related patents and utility models in standards (the so-called standard essential patents – SEPs). This seems a bit out of place given that the book has focused on copyright until this chapter and does not delve into the complex topic of computer-implemented inventions. This being said, the chapter is still interesting. The tenth and last chapter tackles enforcement and considers not only copyright but also trade secrets and patent rights. It is more incomplete than the previous chapters and it feels like a concluding chapter may be missing.

A critique of the book could be that the author is not always forthcoming in his opinion and often explores several possibilities in a non-comital fashion. However, that does not take away from the high-quality writing and research. Overall, this book provides a critical and thorough analysis of the main rules on the legal protection of software in Spain. Given the nature of those rules and the particularities of the book, it will prove useful beyond borders both for practitioners and students.

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<sup>10</sup> Nevertheless, exhaustion of software has been recognized as a particular issue of software due to Court of Justice's decision in C-128/11, *Usedsoft*, especially when contrasted with the C-263/18, *Tom Kabinet* (EU:C:2019:1111) ruling that denied the exhaustion of “used” e-books.

## Bibliography

- CHEN, Hao-Yun (2021). “Copyright Protection for Software 2.0.” in AAVV, *Artificial Intelligence and Intellectual Property*, Oxford University Press, 323-340.
- CHIANG, Ted (2023). “ChatGPT Is a Blurry JPEG of the Web” *New Yorker*, 9 Feb. 2023.
- PICHT, Peter, THOUVENIN, Florent (2023). “AI and IP: Theory to Policy and Back Again – Policy and Research Recommendations at the Intersection of Artificial Intelligence and Intellectual Property” *IIC – International Review of Intellectual Property and Competition Law*, 54, 916-940.

