Copyright law is, for good or for ill, of increasing concern for academics in their work. One area receiving particular attention is the copyright status of data and data representations.

The Copyright Act and relevant caselaw are clear on copyright protection for data: there is none. Section 102(b) of the Copyright Act states that "In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.\(^1\) This section of the statute has been strongly applied by the Supreme Court as far back as 1880, where the Court ruled that accounting forms were not subject to copyright protection in *Baker v. Seldon*.\(^2\) More recently, the Court reaffirmed this principle in *Feist Publications, Inc.*, *v. Rural Telephone Service Co.*, where they ruled that a phonebook did not have enough creative expression to merit protection; the mere fact that it took time and effort to acquire the names and numbers for the book, or in the words of the Court, that it required "sweat of the brow" was not sufficient for copyright protection.\(^3\)

What, practically, does a case about accounting forms and a case about a phonebook have to do with scholarly publishing? As it turns out, quite a bit. Particularly in the sciences, scholarly works include substantial amounts of tables, charts, and graphs, and many of these objects are of such explanatory value that other scholars wish to cite them in their own writing.⁴ While there are ways that a scholar can pay for a license to use such materials, they really don't need to go to the trouble, as charts, graphs, and tables are not the proper subject matter for copyright protection.⁵

Let's unpack that last statement.

Charts, graphs, and tables are not subject to copyright protection because they do not meet the first requirement for copyright protection, that is, they are not "original works of authorship," under the definitions in the Act.⁶ At first glance, this probably doesn't make much sense; if a researcher runs a series of experiments and collects a data set, isn't that original, and aren't they the author of it? In a sense, yes, but in the sense that's important for copyright, no. Facts and data aren't considered original works of authorship because they are not "created" so much as they are "discovered." For example, if a scientist takes temperature readings at various locations over a period of years, she isn't "creating" the data, she's recording the data. If she keeps a log describing how she feels every day, and how the sunrise looks at the testing station, that's original, creative, authorship. Recording natural phenomena is not.

Furthermore, representations of data are also not protectable. Rereading section 102(b) with a particular emphasis on the second half reveals this, as it reads: "In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, **regardless of the form in which it is described, explained, illustrated, or embodied in such work**." Essentially, that means that a graph, chart, or table that

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1 17 U.S.C. § 102(b).
2 101 U.S. 99 (1880).
3 499 U.S. 340 (1991).
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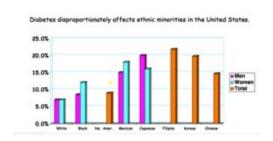
⁴ 5

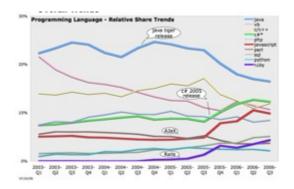
^{6 17} U.S.C. § 102(a).

^{7 17} U.S.C. § 102(b), emphasis added.

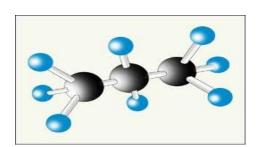
expresses data is treated the same as the underlying data. The courts have been clear as to the practical implications of this statement and the broader principles that it informs. For example, they have ruled that a digital schematic of an automobile was not sufficiently creative to merit copyright protection, that when certain topics are essential to expressing an idea they are not protectable, and that when there are only a few possible ways to express an idea, they are not subject to copyright protection.

According to this logic, the following charts, graphs, and tables are not protected by copyright:¹¹





The above images are graphs, and the appearance of those graphs is dictated by the data which the graphs represent. As such, they do not merit copyright protection. While the creators of the graphs did have some creative control over they type of graph they chose, the colors they used to represent data, etc., those choices only served to represent the underlying data.



Similarly, the above representations of molecules, (propane and glucose, respectively), are also not subject to copyright protection. A molecule exists in a predetermined state, and a representation of this state will be dictated by that underlying fact, and is therefore not subject to copyright protection.

That is not to say that just because something represents data it cannot be subject to copyright. The following image is an infographic that illustrates immigration trends in the United States. While the image does represent immigration data, there have been creative choices made the serve to do more than to express that data. While certain elements of the image are not themselves subject to copyright, taken as a whole, the image would receive protection.

⁸ Meshwerks, Inc. v. Toyota Motor Sales, U.S.A., Inc. 528 F.3d 1258 (10th Cir. 2008)

⁹ Atari, Inc. v. North American Phillips Consumer Electronics, 672 F.2d 607

¹⁰ Morrissey v. Procter & Gamble 379 F.2d 675 (1st Cir. 1967)

¹¹ The following examples are taken from the Open.Michigan wiki, available at https://open.umich.edu/wiki/Casebook, and other various sources.



Conclusion

Copyright is an important protection for authors, and a healthy respect for the law is vital for successful scholarship. However, copyright is limited by Congress and the courts to a set of protectable expression. Just because something took effort to create does not mean it is subject to copyright protection. Facts, data, and the representations of those facts and data are excellent examples of things that require much "sweat of the brow" to create, but yet still do not receive copyright protection.

As a final note, it is important to state that even if something is subject to copyright law, it still may be acceptable to make certain uses of it because of the statutory limitations to copyright. For example, "fair use" limits the exclusive rights that authors have in their copryrighted works and allows individuals or institutions to make certain uses of those works without needing to seek permission. In particular, academic, non-profit, and highly transformative uses (that is, uses which supersede the original use of the work) are likely to be considered fair. For a more thorough discussion of fair use, see...