Notes on Intellectual Property: Copyright Law

Anthony Salvagno[1]

[1]Affiliation not available

April 17, 2023

the WINNOWER

SCIENCE AND SOCIETY

Notes on Intellectual Property: Copyright Law

ANTHONY SALVAGNO

CORRESPONDENCE:
asalvagn@unm.edu

DATE RECEIVED:
June 10, 2015

DOI:
10.15200/winn.143006.60685

ARCHIVED:
April 26, 2015

CITATION:
Anthony Salvagno, Notes on Intellectual Property: Copyright Law, *The Winnower* 2:e143006.60685 , 2015 , DOI: 10.15200/winn.143006.60685

In the quest to discover how a scientist may protect their intellectual property with regards to open access to that IP, I've decided to do some research. The notes contained here come from:

Intellectual Property: Patents, Trademarks, and Copyright (in a nut shell, 4th edition) by Arthur Miller and Michael Davis

In the interest of time and sanity, I'm going to focus on copyright law. Generally when providing open access and CC licensing, only copyright applies since nothing contained is trademarked or patented (except in the case where patents are filed). Hopefully the information I document here is useful to those who want to follow the model I have used, and maybe it'll be useful to scientists who pursue other avenues of scientific discovery.

Foundations of Copyright Protection

- first it should be said that copyrights pertain to "written" works which has come to expand to other works of art and computer programs, and in our case scientific data/research.
- originally copyright law's jurisdiction was from the moment of publication, but amended to the moment of fixation – that is the moment a work becomes transcribed into a tangible form. In our case that means once data/methods is acquired and stored.
- typically, registration of a copyrighted work is important, but "the basic doctrine of this country's copyright law is to protect authors without requiring it." That is especially important for science because information and conclusions are being produced all the time and it would be nearly impossible to register all of that scientific work constantly.
- The Copyright Clause of the US Constitution: "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."
  - Basically Congress has the ability to power to create legislation dealing with copyrights, and has chosen to do so since 1790 and has amended the law several times since then.
  - A 1976 revision to the law was created as the Copyright Act of 1976, which applied copyright to moment of fixation, like I stated before.
- Prior to the 1976 Act copyright fell under two distinctions (not sure if that's the right term): (1) there was common law copyright and (2) statutory copyright
  - common law gave authors the ability to protect their work from being copied forever as long as the work was unpublished.
  - once the work was published then statutory copyright law took over. this copyright was limited (unlike common law which was perpetual). The benefit was that authors could publish their work and claim a monopoly over their work and receive compensation while being protected by the law.
  - the problem with this system was that there was a gray period when common law copyright

would end and statutory copyright would begin. To complicate matters new methods of communication made it hard to classify the concept of "publication."

- the 1976 Act essentially eliminates the concept of common law copyright and protects the author from the moment a work is recorded in some concrete way. For research I assume that would be from the moment notes are taken, but I can see a case to say that this moment is actually when a grant for research is written. Some articles in the act:
  - Section 102 is pretty important in that it defines the moment of copyright and what a work of authorship is. Interestingly section b of the law states: "*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.*" Despite the fact that copyright was specifically created to aid science the wording of that section seems contradictory. More information will be needed.
  - Section 106 gives the author exclusive rights to produce copies of the work and any person who makes copies without the authors consent is subject to an infringement suit and can be arrested (Section 506). Yikes! Derivative works are also protected.
  - The author is protected when displaying/performing the work publicly. This seems to be applicable to open science. Allowing scientists to publish their research without fear of data misuse/thievery
  - It seems copyright applies to the publication of science (data, journal articles, etc) but patents provide protection of the actual process of discovery. So the application of the law to open science would be a mixture of the two law regimes.
  - The basis of copyright protection lies in expression and originality. Since facts and ideas aren't copyrightable the way an idea is expressed becomes important. So for science, data probably isn't very protectable, but they way you display that data (interpretation) probably is copyrightable. Originality here becomes important. A work doesn't need to be new or novel, it just needs to be proven that it wasn't copied or derived from someone else.

The Subject Matter of Copyrights

- The key aspect of copyright is originality. According to the author "an author can claim copyright … as long as he created it himself, even if a thousand people created it before him."
  - This is especially interesting in the open publication world, and to me, makes Creative Commons licensing all the more important. With access to works (via the web) copyright violations can become more of an issue. The CC license essentially allows you to keep your copyright, but provide would-be authors the chance to adapt a work without fear of infringement (and likewise, authors won't have to fear plagiarism).
  - Because of the simple concept of originality, there has been some interpretation as to what exactly can be copyrighted:
  - *Burrow-Giles Lithographic Co v. Sarony (1884)* established that artistic consideration and creative effort is enough for photographs to be copyrightable.
  - But in 1903 *Bleistein v. Donaldson Lithographing Co* declared that a work had originality if it was "one man's alone." At that point artistic merit was not to be considered by the court.
  - Artistic reproductions became copyrightable after *Alfred Bell & Co. v. Catalda Fine Arts, Inc.* (1951) because the reproduction can be considered an original work. Essentially the reproducer is protected from someone making copies of his reproduction. (This probably only applies to reproductions of works that are in the public domain, since only the copyright holder can allow reproductions of a work.) Also it must be demonstrated that the reproducer has contributed something more than trivial to the reproduction.
  - The "sweat of the brow" doctrine gave originality to works that were not artistic in nature. For instance, aggregations of public domain information were protected if the author demonstrated some investment of original work.
  - *Feist Publications v. Rural Telephone Service (1991)* rejected the "sweat of the brow" doctrine on the premise that there should be "some minimal degree of creativity."
    - Basically simple information aggregation, or fact compiling, isn't enough for copyright. But this

shouldn't exclude scientific data from being copyrightable since the collection of the data is a creative process and the data analysis is highly nontrivial.
    - Interestingly computer databases may fall into the category of non-copyrightable works and as such sui generis protections are required. This is interesting because of the involvement of data and may become an umbrella for scientific research.
    - As a result of this trial, there remains a lot of controversy as to how much creativity is required for copyright protection.
- To determine what categories of works can be included for copyright protection see 17 USCA 102 (linked above). But the wording of that section suggests that copyrightable material need not fall under those categories specifically. Those are provided as a guide.
    - Works of utility (functional objects) are generally not granted copyright protection because that is what patents are for. But there are exceptions in the case of works that are non-functional, or for portions of functional objects that are non-functional (ie designs). For example *Mazer v. Stein* (1954) allowed the copyright of lamp bases.
    - When the idea and it's expression are inseparable, copyright is generally denied. This affects things like forms, systems, software, and potentially scientific data. Blueprints on the other hand are copyrightable, and until recently the buildings themselves were not. Now buildings are copyright protected, but not functional components like doors and windows. Fashion designs fall into both realms, patterns are copyrightable but the design of clothes themselves are tough to copyright.
    - The availability of patent protection makes it hard to attain copyright, even though nothing is explicitly written to prevent this. In fact there has been a case to determine that patents and copyright can both exist in the same work (*In re Yardley* (1974)).
- intangible expression is not protected under copyright since there is no fixation of the expression. Choreography is an example of this. Speeches are another, but presentations with powerpoint should be copyrighted because the presentation has been "scribed." Likewise, audio recordings of a speech are copyrighted.
- the term "writings" (as said in the Constitution) and the more narrow "works of authorship" (as written in the 1976 act) are incredibly hard to limit in scope. The authors note that it is "difficult to identify those works that would constitute writings but that would not be original works of authorship."
- computer programs are copyrightable, but may be denied copyright if they "lack minimal originality… or constitute the only way of accomplishing a particular result." The second part is essentially phrased so that the program is itself an idea and no longer the expression of an idea that can be expressed in other ways.
    - when dealing with programs it seems there are two components literal and nonliteral:
        - literal components refer to the programming code and has been copyright protected
        - nonliteral components refer to the organization and the user-interface (among others) and is harder to attain copyright. This is especially true when the interface is dependent on user-interaction.
- The Berne Convention has complicated the legality of copyright. Through signature, the US recognizes the copyright of all other countries that have also signed.
    - "the copyright formalities…have lost almost all of their legal significance"
    - "notice of copyright… has virtually no legal significance."
    - "similarly, registration has almost no legal significance" –> "the only remaining procedureal effect of registration is that US authors must register before bringing suit."

Exclusive Rights

- see section 106 of the 1976 Act for the exclusive rights of authors. Most of these rights are upheld only publicly, but 2 (reproduction and derivative work) are subject to infringement both publicly and privately. Note that public is defined as "a performance or display to a 'substantial number of persons' outside of family and friends."
- reproduction allows the copyright owner to exclude all others from reproduction of the work
    - a copy is defined as "any material object from which, either with the naked eye or other senses,

or with the aid of a machine or other device, the work can be perceived, reproduced, or communicated."
    - phonorecords are not specifically excluded from the definition of copies, so they have been specifically added to the description of reproduction
- derivative works (works based on the original work) are also under protection for a copyright owner
    - this is defined as "translations, arrangements, dramatizations, fictionalizations, films, recordings, abridgements, condensations, 'or any other form in which a work may be recast, transformed, or adapted.'"
- the right to distribute to the public "by sale or other transfer of ownership, or by rental, lease, or lending…"
    - called the first-sale doctrine
    - copyright owner has the right to prohibit others from distribution of work, until the ownership is sold/transferred. At this point, the new owner has this exclusive right.
    - designed to prevent restraints on alienation, "attempts to make an actual sale resemble something less than that… will be unsuccessful."
    - it is possible a third-party to be held liable if there was no first sale
- the right to perform work publicly is also provided to copyright owners, but excludes purely graphical works and I feel scientific data falls into this category.
- the right to display a copyrighted work is also exclusive to a copyright holder.
    - owners of a copy of work are permitted to display one image of the copy and this includes digital transmission (internet, network, etc)

Infringement

- occurs when any of the exclusive rights of the copyright owner are violated – makes sense
    - doesn't need to be intentional
    - it can even be unconscious – an author produces work that he conceives is original but is actually unintentionally borrowed from another author
    - indirect infringement – "one who actively and knowingly encourages another to infringe"
    - contributory infringement – producing a work/device that can be used to infringe on copyrights (see *A&M Records v. Napster*, 2001), but note that if there are substantial non-infringing uses then contributory infringement is not applied
    - vicarious/related infringement – seems similar to indirect inf. "a person who profits from an infringing performance, AND who somehow supervises or has the right to control or supervise the performance"
- "to prove infringement, a party must establish ownership of the copyright and impermissible copying"
    - usually determined via circumstantial evidence
        - substantial similarity – remarkable resemblance to original work
        - proof of access – opportunity for contact with original work prior to creating work
    - literal copies allow for the proof of access requirement to be less
    - similarity and access are not required proofs, but merely an evidentiary method

Fair Use

- "a balancing process by which a complex of variables determine whether other interests should override the rights of creators" – there are 4 interests:
    1. purpose and character of the use, including commercial uses
    2. the nature of the copyrighted work
    3. the proportion of the work that was used
    4. the economic impact of the use
- seems like a very sticky thing to prove in cases of infringement and all cases involving fair use are ruled based on the interests listed above. Seems like cases where indirect infringement occurs has most likey use of fair use defense.
- Purpose and Character:
    - commercial vs noncommerical
    - public vs private – private nature of use can be favorable in fair use defenses

    - educational and nonprofit (especially together) are favored for fair use, but not always grounds against infringement
- nature of the work plays a role in determining fair use
    - ex: educational works may not fall into fair use if the original work is educational itself, because of the economic impact of the use (the works are in the same area of economic potential)
    - consent issue – would the author give consent for uncompensated use if the author can use the work for their own benefit?
    - unpublished nature of work may be within fair use, but prior cases have precedent for barring the defense
- amount of the work used (proportion) is important in determining fair use
    - proportionality is to be measured with respect to the original (copyrighted) work, not the potentially infringing work
    - quantitative, qualitative, and reverse proportionality can all be used to determine fair use, but only the first two are specifically mentioned in law
- economic impact is particularly important when determining fair use – this should be obvious since copyright is designed to provide an author protection to profit from their work

Ownership

- it is important to realize the physical work and the creative property are two separate entities. A transfer of the physical work does not constitute copyright transfer. This is important when considering communications between two parties: an email or letter for instance. The information in the communique is copyrighted and protected but the actual paper/message is nothing and particularly meaningless.
- copyright must be transferred in writing
- multiple authorship makes copyright ownership complicated and occurs when:
    1. work consists of material made by more than one person (joint works)
    2. work is made by one and published by another (work for hire)
    3. work can be neither joint nor work for hire and is classified as collective works
    4. work based on prior author is derivative
- in cases of coauthors, each owner has the right to use the work for their own purposes, but neither can prevent the other from doing the same.
    - neither author is allowed to destroy the value of the work

Registration

- copyright protection is automatic – as soon as a work is fixated (written, drawn, etc) copyright is applied
- for clarification: copyright is designed to prevent copying, as an author you don't need to find works that are similar to one you wish to create if you are creating something independently.
- but registration of a copyright is required if legal action is to be taken – ie if you want to sue for infringement
    - you can register a copyright after finding an infringement but before filing suit
- notice is optional (for works authored after 1989), but when it is applicable there are 3 rules, notice of copyright must be affixed with :
    1. copyright symbol (letter, symbol, word, or abbreviation
    2. the date of first publication
    3. the name of the copyright owner