No. 5

AUTM EDUCATIONAL SERIES:

Development and Deployment of Digital Works in Universities:

A Guide for Authors and Licensing Officers

by Catherine Innes
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Association of University Technology Managers, Inc.

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AUTHORS' SUMMARY

Universities are constantly seeking new ways and new technologies to expand and extend their teaching, research, and academic missions. New materials are created to help in this process and many of these materials draw from earlier works created by others. This activity often utilizes web-based distribution and this raises many questions in the academic setting including ownership of the new materials and the fair use of the older materials. Answering these broad questions typically is not a simple process due to the many factually intensive subissues that must be addressed.

A short booklet such as this obviously cannot cover everything one would need to answer all possible questions. This book assumes the reader has a basic understanding of copyright law, including copyright subject matter, the copyright rights, and how these rights are transferred. Our objective in this booklet is to provide a discussion on ownership and use issues that arise specifically regarding digital works created in the academic environment.

While every attempt has been made to provide as much up-to-date and practical information as is possible, the good news and bad news is that technology is rapidly changing and along with it, albeit more slowly, the law. As a result, this book provides merely a snapshot view of this area as it was at the time this book was written. For this reason, and because this book is not intended to provide legal advice, readers should not rely upon it as such. If legal advice or other expert assistance is required, the services of a competent professional should be sought and obtained.

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INTRODUCTION

Copyright law is often viewed as a system to balance the rights of creators and the public's interest in access to creative works. New technologies, however, come along and appear to disrupt this balance. This happened with the invention of radio, motion pictures, and xerography, just to mention a few. The latest technology to come along and to noisily disrupt the balance is the Internet. The Internet has blurred the lines between the three groups involved with copyright content: the content creators; the commercial developers, such as publishers; and the users of the works. Anyone with a computer and access to the Internet can now wear all three hats. Copying, disseminating, and using works is now possible with ease, speed, and relatively low cost. Digital copies are nearly indistinguishable from the original, allowing a creator to integrate content of another with almost no difference in quality. Clearly, the law is struggling to catch up with technological changes, and the pace of technological development shows no sign of slowing.

Universities are affected by the use of new technologies in many ways. Fundamental to the academic mission is the creation and dissemination of knowledge. This process depends upon the free flow of information and the use of existing works in the study and research integral to the creation of new works. Digital content, whether obtained from the Internet or another source, makes its easier for creators to develop new works, but how one may use such works consistent with copyright laws is a difficult question.

(such as subject matter that does not meet the novelty test), and regardless of whether it is in tangible form or intangible form.

Trade secrets are broadly defined as any information that has value—either actual or potential—that is not generally known and is kept secret by its owner. As with copyright, no application or disclosure process is necessary to obtain trade secret protection. Unlike patents and copyrights, which are federal forms of protection, state law provides trade secret protection.[1] Advantages of trade secret protection are that it can last indefinitely and there is no cost associated with obtaining this form of protection. Courts have found that a variety of forms of subject matter, including computer software and display architecture, may constitute or contain trade secrets.[2] The major shortcoming of this form of protection is that it does not provide the limited period of exclusivity that a patent or copyright provides: trade secret protection is lost upon disclosure without backup contractual protection such as a nondisclosure agreement and cannot prevent someone else from independently developing the same information or "reverse engineering" a product that comes to the open market.

Universities develop this form of intellectual property daily but frequently do not or cannot take the steps to protect it as such. This is partially due to the lack of familiarity with what is needed for such protection, but also because of the countervailing policies and practices inherent to academic institutions. Academic institutions operate in part to provide a "free forum" of ideas. One of their primary missions is to educate the public about new discoveries. The value that the public ascribes to such institutions is often measured by such public disclosures. The tenure track system—with the emphasis on publication—further acts as a disincentive to the maintenance of information as a trade secret. With the increase in the cost of other forms of protection, it may be useful for universities to utilize trade secrecy more as businesses do to protect software, hardware, databases, and new processes, as well as more common forms of information such as technical data, know-how, clinical data, and other tangible results of research.

mark is the same as a trademark except that it is used to identify a service rather than a product. In the following, we will use the term "trademark" to mean also "service mark." Trademark rights are based on priority. Priority is established by the actual use of the mark or the filing of an application to register the mark based on a *bona fide* intent to use it. The owner (or applicant) of a distinctive trademark has the exclusive right to use the mark on the type of goods for which the mark was obtained.

Any word or logo may be registered as a trademark with a few notable exceptions. For example, immoral or deceptive material; words or logos that falsely suggest a connection with persons or institutions other than the owner of the mark; a national or state flag; or material that is likely to cause confusion in the marketplace with other goods will be refused registration by the Trademark Office.[4] Marks that are distinctive are considered to be stronger and more enforceable than words that are descriptive of the product or service.

Cybermarks—a phrase coined for marks used on the World Wide Web—are valuable tools. Browsers of web content often use such web-based marks to search for content they wish to access. Marks have also been used as valuable tools to further help to protect copyright works from misuse on the web. The typical university's interest in registering trademarks and generating income, however, is limited to the athletic department's interest in satisfying the students, parents, and alumni demand for clothing and souvenirs bearing the university's name, logos, and mascots. Trademark law provides an important form of additional intellectual property protection and may be an effective method of protecting content transferred under technology licenses. Universities may wish to expand their use of trademarks and develop and use strong marks with new content that is placed on the web.

Right of Publicity

Some say that the fifth intellectual property right is the right of publicity: that is, the right that everyone has upon birth to control how his or her name, image, voice, or other identifying characteristics (as a whole termed the "persona") may be commercialized. This is a right that varies from state to state. Any developer of digital content will need to consider this

CREATING NEW WORKS WITHIN THE UNIVERSITY

Many university copyright policies specify that the faculty own certain types of works, such as scholarly articles, lecture notes, and textbooks. Now that new types of works are being created, many people seek similar statements in policies to address web pages, software, and multimedia. But these new works can be very different from the typically print-based, single author works that preceded them. Today's scholarly works may involve the efforts of designers, programmers, and technicians in addition to the faculty authors. Significant financial resources may have been expended to create the work. A blanket determination of ownership based on the type of work is probably unrealistic. As will be discussed below, many factors must be considered to determine the ownership of a work.

The Authorship Determination

Many digital works include several different types of creative contributions, not all of which result in "authorship" in accordance with the copyright laws. Because ownership flows from authorship, the first step in determining the ownership of a digital work involves identifying how many separate contributions are tied up in the digital work and who are the authors for each of those contributions.

The public views the term "author" to be generally synonymous with writer. However, in the context of copyright law, "author" refers to someone who creates original musical composition, photograph, artwork, architectural rendering, software, or a dramatic work.[5] Creative contributions such as defining the scope of a program's functional attributes or its underlying concept, while important, are not works of authorship.[6] It is important to recognize that only those individuals who contribute original expression to a work are authors of the work for copyright purposes. It is often academic tradition to list the names of all project participants as authors on a paper about the project, but it is important to distinguish attribution and acknowledgment from copyright authorship.

But what about financial contributions in terms of funding for the project or provision of specialized equipment? These contributions alone do not

pages, software, multimedia productions, and video instruction tools. Such works may no longer be the creation of a single faculty member and may use considerable resources of the university as well as time and talent from a number of staff and students. As a result, universities must consider if their policies adequately address situations in which a work is the product of the creative input of many individuals with differing relationships to the university. Necessarily, the analysis of whether or not a particular work should be considered a WMFH is dependent on the particular circumstances surrounding its creation. One thing is clear, it is now very difficult to categorically opine that all faculty works belong solely to either the faculty member or the university.

Staff members are generally considered to be employees, and, accordingly, their employers own the works created within the scope of their job duties. But how does one address students and other non-employees such as post-doctoral fellows and visitors? Undergraduate and graduate students and post-doctoral fellows have a variety of relationships with the institution: some are paid through an external grant or fellowship, others may have university sponsorship or funding, others may be paid employees of the university. Unless it has been conclusively determined otherwise, it is best to assume that students, post-docs, and visitors are *not* employees of the university and, as such, they retain ownership of the copyrights in works they may create unless otherwise transferred to the university in writing.

WMFH and Sponsors of Research

Further complicating the WMFH analysis in the academic setting is the issue of works sponsored or commissioned by third parties, such as works developed as part of research or testing agreements. Many sponsors of research seek rights to use or own copyrightable results of research, such as reports, technical articles, or software. In other cases, the sponsor may assert that certain works are WMFH, and if the work is one of the special WMFH types and the parties identify it as such in writing, the sponsor owns the work, not the faculty member or the university. This situation poses many policy questions beyond the copyright issues and administrators are encouraged to examine their policies regarding the acceptance of copyright provisions in research agreements regarding such

must be copyrightable. This is very important when considering whether a hiring party or someone having supervisory authority is a joint author with the other contributors. A hiring party that merely provides the specifications that others have to meet in order to produce the required work is not likely to be a joint author.[14] A supervisor that offers suggestions or ideas that others consider when preparing the work is also not likely to be a joint author.[15]

The ownership analysis focuses primarily on whether there was an intention by all of the contributors to form a single work and when each of the contributors formed the required intention. The failure of all of the contributors to have the intention prior to the initiation of the creative effort by each of the contributors will prevent a "joint work" from being formed. If a joint work is not formed, each contributor would retain the rights in his or her contribution. How the resulting combined work may be used can be addressed in a license agreement between the contributors.

Ownership of Joint Works

As one would imagine, further complexity arises if some or all contributions to a joint work are considered WMFHs. If a joint work results from the joint efforts of two university employees, the university will likely be found to be the author and the owner of the work. If a joint work results from two students who are not employees, they would likely be joint authors and joint owners of their work. But what if a work resulted from the joint efforts of a university employee and a non-employee, such as a student or an independent contractor, that was never given a WMFH agreement to sign or didn't create one of the ten works that can even qualify as a WMFH? The student or independent contractor can be a co-author and as such a separate co-owner of the entire work.[16]

Many important consequences follow from this result. As a co-owner of the entire work, a joint author can exercise all of the copyright rights. For example, the joint author can modify, reproduce, and distribute copies of the entire work (and not just the joint author's contribution).[17] The joint author can also grant a nonexclusive license to others to use the work without obtaining the consent of the other co-authors[18] (but must share the profits generated from the license unless the authors agree otherwise).[19]

without permission. Protection will always be sought for work that has an existence separate from and a value that exceeds the sum of the value of each of the components. Protection for such a work as a "compilation" or a derivative work may be possible.[20]

Compilations

A "compilation" is a type of copyright work where several or many other materials are selected and arranged into a new work. The materials chosen for the arrangement may be works that may or may not be subject to copyright protection, or a combination of the two. A database, a course pack of selected readings, and a web page that combines text, images, and design elements from different sources may be compilations. An issue of a periodical, an anthology, and an encyclopedia are all examples of one type of compilation (termed a "collective work").[21]

Whether a developer can use the copyright works of others in a compilation is an important question to resolve before work on a project begins. Just because the technology exists to allow works to be gathered together to form what could be a valuable resource, does not mean that the law permits such an effort. Whether or not particular works may be used and what rights the creator of the resulting compilation would have depends on the particular works involved and the intended use of the compilation. Generally, if the developer of a compilation intends to publish the work or distribute copies of the work to others, such an effort requires that the developer of the compilation obtain the permission of the owner of each piece of copyrightable subject matter brought together to form the compilation. Without such agreements, the compilation may infringe the rights of others.

How the compilation may be used and ultimately how widely the developer can commercialize the compilation is a matter of express agreement between the developer and the owners of each of the works to be incorporated into the developer's work. Granting permission for a work to be used in a compilation does not automatically transfer all rights in the work to the developer of the compilation. The owner of the copyright to the original work typically remains with its owner. The developer that is authorized to include the original in a collective work typically has the

musical arrangement, dramatization, fictionalization, motion picture version of a novel, sound recording, art reproduction, abridgment, or condensation are all examples of derivative works. Editorial revisions, annotations, elaborations, or other modifications that are not copied from another and show some minimum level of creativity also can be derivative works.

The creation of compilations and collective works could also involve the creation of derivative works if the components used in the compilation are adapted or transformed from their original form. This is an important consideration because the compilation developer would need to secure permission to adapt the work as well as reproduce it. Absent the specific permission to exercise the adaptation right and prepare a derivative work, the exercise of this right may constitute infringement.[27] Even if a license to use the work is already in place, it is important to determine whether the license includes the right to prepare derivative versions of the licensed original and the scope of the licensed right, because again, a use that exceeds the original grant may constitute infringement.[28]

SPECIFIC USES OF CONTENT

As long as there has been copyright protection there has been infringement. Historically, however, copyright owners have relied on technological barriers, in addition to the barriers that the law imposes, to prevent unauthorized reproductions of their works. There was a time when the technological barriers made it too labor intensive, expensive, or difficult to copy works; and even if copies could be made, they were often of noticeably poorer quality and thus not terribly desirable. We are now in an environment where it is easy, fast, and inexpensive to make high-quality reproductions. At the same time, the technology exists so that million of copies can be distributed instantaneously. Such technologies present a confusing dilemma to creators of new works, who sometimes mistakenly believe that simply because the technology exists to reuse and incorporate old content in new packages that somehow it is legally appropriate to do so.

The following paragraphs discuss some of the many common activities involved in the use or creation of digital materials and implications of

amount to nothing more than an exercise of the original text owner's reproduction right. However, if the translator adds new nuances and subtleties to the original text to produce an original and creative new work, the translation may constitute an exercise of the original text owner's adaptation right.[32]

Copying Television Broadcast Content

Individuals commonly record television programs so that they may watch the program later. This is an exercise of the reproduction right. However, the U.S. Supreme Court has held that such copying for personal, noncommercial viewing is a fair use and, therefore, not an infringement.[33] However, if done for other purposes, such as for the purpose of using the taped content in a multimedia product, the taping may not be considered fair use and permission of the owner may be required. Depending on the nature of the content and how it is used, the adaptation right may be exercised.

Music

Music can involve the copyrights of many. Separate copyrights can protect the musical composition, the lyrics, and the recorded performance of the work.[34] Songwriters may retain the rights to their compositions, while recording studios generally own the rights for the recordings performed by various artists. As a result, the use of a particular song may require one or more licenses. Associations handle much of music licensing, and many rights may be obtained through blanket and compulsory licensing schemes. Obtaining rights not handled by associations can involve clearing rights through separate negotiations with song writers, heirs, agents, publishers, recording studios, or performing rights agencies. Developers wishing to use music in their projects are advised to carefully consider the rights to be exercised and the permissions that may be required. Types of licenses that are frequently used for music are discussed below.

Performing music for any group beyond the normal family circle[35] generally requires a public performance license. This would include music played for a group of students as well as making music available over the

be the case. Even though the copyright in an original artwork may have expired, the owner of the work may control access to it and how images of it may be used. For example, a museum may not allow the general public to photograph paintings in its collection and may allow only authorized copies to be made available to the public. If any copyright remains in the artwork, it may be necessary to obtain the permission of both the artist and the party that possesses the original work.

"Free" Content

Although a tremendous amount of material is easily accessible on the Internet, most types of works in digital form enjoy copyright protection just as they would in analog form. Text, music, video, photographs, and graphic design, all common components of web pages, can all be protected by copyright. However, certain elements of works and certain types of works can be used without authorization.

Subject matter that is not eligible for copyright protection, such as facts, ideas and works of the U.S. Government,[37] and works for which copyright has expired, may be used without permission. These works are said to be in the "public domain." A word of caution: while a work may not be protected by copyright, there may be other protections in place. For example, the content may include one or more trademarks or service marks. If these marks were managed properly by their owners, the protection afforded the marks can certainly outlive the copyright protection of the content. Use of the content including such a mark may require authorization from the mark owner. Similarly, each individual upon birth is recognized as having the right to control and profit from the commercial use of his or her image, name, or other identifying characteristic—that is, his or her "persona." This is the "right of publicity" we discussed above. While a previous publisher of content may have obtained a release from those whose images appear in the publication, the release typically is not broad enough to allow any and all reuses. Logically, such releases would not extend to a third party's use not even contemplated at the time the original release is signed. Releases are discussed below. Such reuses without permission may constitute an infringement of the individual's right of publicity.

Consolidating Rights

Key to a successful university-based copyright licensing program is the careful assessment of the contributions in a work and the consolidation of the rights with the university. If a digital work is prepared by a number of individuals, it is important to recognize that if all the creators did not intend for the work to be a joint work, or otherwise agree to consolidate the rights with the university, there could be many owners of the many separate components of the work. It is imperative that the institution conduct discussions with each of the owners of each component of the work and obtain their permission before any effort to commercialize the work is begun. Liabilities arise when this important step is not well understood by all members of the university community or the task of clearing rights is left until after the work has been completed and ready for deployment.

The form of permission necessary for a particular component is a function of the type of component, how the work containing the component is to be used or commercialized, and the relative bargaining position of the component owners. Specific examples will be discussed below.

The Release

A release is simply an agreement that the owner of a right or claim will not bring an action against another for the use of the subject right or claim. Releases are typically used when the image or name of an individual appears in a film clip and the individual's right of publicity or privacy may be implicated. It is important that if someone else generated the film clip and represents that all the necessary releases were obtained, the scope and content of the releases be examined. A release that is drawn too narrowly for the contemplated use may be insufficient to protect the institution from a claim of infringement. For example, the creator of the original film may have obtained releases from individuals for the use of their images in the film as a whole, but the original creator may not have obtained releases for the work to be digitized or recast by others in other applications.

common basis for litigation. For example, a contractual grant of the "right to use" a series of programs with the licensor retaining "all rights of ownership" was held by a court to unambiguously provide that the party being allowed to use the programs could not copy the program and prepare a modified version.[40]

Licensing Rights to University Owned Content

Universities are viewed as the source of large amounts of content in a variety of forms. In digital commerce, this content is very valuable. Others are likely to seek permission to use these works. Quite simply, if new works are created and made available for use in one context, you can anticipate receiving requests for permissions and licenses from others to use the works in other new contexts. When and how to license the rights that are tied up in that content is a new issue facing many technology licensing officers.

Often times the creators of a work will think of a short-term goal and quickly assign all rights in the work to a publisher. But assignment transfers all the rights and ownership of the property to the other party. What if the other party plans to exercise only some of the rights? Why assign more than the assignee intends to use? If an assignment is not used but instead a license is used, it is important to remember that one does not have to license all the rights exclusively or license only to one person. The technology licensing officer is in a position to carefully construct licenses to achieve the maximum value for the work. For example, it may be desirable to break up licenses by format and medium of deployment as well as by market sector. This serves the objective of broad dissemination of the results of research and fulfills both academic and public service objectives. It may also be desirable to retain control over updates and improvements of the work to ensure that the work maintains academic integrity and represents the university personnel appropriately. Conversely, care must be taken to ensure that faculty are not over obligated in providing updates or improvements, particularly in software, for commercial products.

Ownership v. Financial Interests

In many cases, universities provide financial support and resources that would not give rise to an ownership position. It is important to distinguish when a university is asserting a financial or a controlling interest in a work rather than an ownership position. For example, a university may determine that use of certain resources, such as media centers or supercomputers, may trigger a financial interest in any commercialization of the work, but not give rise to authorship. The university may consider recovery of its investment through royalty sharing, which may be different than royalty sharing programs for works that did not utilize substantial resources. Alternatively, universities may consider financial investment in a project as a requirement that the work be assigned to the university.

CLOSING

The creation of new copyright works in the university raises complex copyright questions with respect to ownership of the new materials. Sorting out authors from other contributors, establishing whether works are works made for hire or independent efforts, and considering whether a work is a joint work, a compilation, a derivative work or utilizes preexisting content can be a daunting task. Absent any agreements to consolidate or transfer rights, copyright ownership will be determined by copyright law. The creators and/or the university may find that they have insufficient rights to disseminate the work as desired.

It is often easier to deal with the copyright issues at the beginning, rather than the end, of a project where publication is contemplated. In this way, agreements can be used to consolidate rights and obtain permission so that copyright becomes a valuable tool for deployment rather than an impediment.

[11] The Act is "general enough to make every academic article a 'work for hire' and therefore vest exclusive control in universities rather than scholars." *Weinstein v. University of Illinois*, 811 F.2d 1091 (7th Cir. 1987).

[12] Section 101 (definition of "joint work").

[13] Each contribution must be of copyrightable quality; that is, not copied from another and showing at least a minimum of creativity. The quantity must be of more than a *de minimis* amount or the contribution is insufficient in amount to qualify as copyrightable contribution. The contributions need not be equal. *Community for Creative Non-Violence v. Reid,* 846 F.2d 1485, 1495-96 (D.C. Cir. 1988), aff'd, 490 U.S. 730 (1989).

[14] *Whelan Assocs., v. Jaslow Dental Labor.,* 609 F. Supp. 1307,1318-19 (E.D. PA 1985), aff'd other issues 797 F.2d 1222 (3rd Cir. 1986); *Ashton-Tate Corp. v. Ross,* 728 F.Supp. 597, 601-2 (N.D. Cal 1989), aff'd 916 F.2d 516, 520-2 (9th Cir. 1990).

[15] The Act states that copyright protection does not extend to any idea. Section 102(b). *Community for Creative Non-Violence v. Reid,* 490 U.S. 730 (1989); *S.O.S., Inc. v. Payday, Inc.,* 886 F.2d 1081, 1087 (9th Cir. 1989) ("supplier of an idea is no more an 'author' of a program than is the supplier of the disk on which the program is stored.").

[16] Section 201(a).

[17] *S.O.S.,* 886 F.2d at 1086.

[18] *Weinstein,* 811 F.2d at 1095.

[19] *U.S. Ex Rel. Berge v. Board of Trustees of Univ. of Ala.* 104 F. 3d 1453, 1461 (4th Cir. 1997); *Oddo v. Reis,* 743 F.2d 630, 633 (9th Cir. 1984).

[20] Section 101 defines a "compilation" as "a work formed by the collection and assembling of pre-existing materials or of data."

[21] Section 101 defines a "collective work" as "an assemblage of separate and independent works brought together as a collective whole." Whether the bringing together of a small number of separate works qualifies the grouping as a separately protectable collective work and not a simple aggregate of a few pieces is not altogether clear. All that can be said is that the fewer the number of separate works that are brought together, the less likely it is that the work is a collective work.

[34] Section 102.

[35] According to Section 101, to perform a work "publicly" means to perform it at a place open to the public or "at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered" or "to transmit or otherwise communicate a performance" of the work to one of these places by means of any device or process "whether the members of the public capable of receiving the performance...receive it in the same place or in separate places and at the same time or at different times."

[36] Section 115.

[37] Sections 101, 105.

[38] Section 107.

[39] *Gilliam v. American Broadcasting Co.*, 538 F.2d at 20; *S.O.S.*, 886 F.2d at 1087.

[40] *S.O.S.*, 886 F2d at 1087-8.

[22] Section 201(c).

[23] Section 101 defines a "'compilation" as "a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship." For a compilation to enjoy protection, it must include protectable subject matter (for example, no protection exists for the "idea" behind the compilation only the "expression" of that idea in the compilation) that is not copied from someone else and that shows a modicum of creativity (typically a very easy standard to meet). See also *Feist Publications v. Rural Tele Service,* 499 U.S. 340, 348 (1991).

[24] *Corsearch, Inc. v. Thomson & Thomson,* 1992 Copyr. L. Dec. (CCH) 26,912 (S.D.N.Y. 1992).

[25] Section 103(b).

[26] Section 101 (definition of "derivative work").

[27] Section 501 (a).

[28] 501 (a);, *Gilliam v. American Broadcasting Companies, Inc.,* 538 F.2d 14, 20 (2nd Cir. 1976).

[29] *MAI Systems Corp. v. Peak Computer, Inc.,* 991 F.F2d 511, 518 (9th Cir. 1993); *Triad Systems Corp. v. Southeastern Express Co.,* 64 F.3d 1330, 1335 (9th Cir. 1995); *Advanced Computer Services. v. MAI Systems,* 845 F.Supp. 356, 363 (E.D. VA 1994).

[30] *Playboy Enterprises, Inc. ("PEI") v. Frena,* 839 F. Supp. 1552 (M.D. Fla. 1993).

[31] *PEI v. Webbworld, Inc.* 991 F.Supp. 543 (N.D. TX 1997) (creating thumbnail copies and full-sized images from a computer newsgroup constituted an exercise of the reproduction right and allowing users to download and print these copies of electronic image files constituted an exercise of the distribution right); *Central Point Software v. Nugent,* 903 F.Supp. 1057 (E.D. TX 1995) (unauthorized making of versions of software on an electronic bulletin board system constituted an infringement of the reproduction and distribution right) .

[32] *Signo Trading Intern., Ltd. v. Gordon,* 535 F.Supp. 362, 364 (N.D. Cal. 1981).

[33] *Sony Corp. of America v. Universal City Studios, Inc.,* 464 U.S. 417 (1984).

NOTES

[1] Forty states have adopted The Uniform Trade Secrets Act, which defines a trade secret as "information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (i) derives economic value, actual or potential, from not being generally known to other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy." The remaining states have separate state statutes protecting trade secrets or protect trade secrets under the common law.

[2] For example, see *Vermont Microsystems, Inc. v. Autodesk, Inc.*, 88 F.3d 142, 149 (2nd Cir. 1996); *Harbor Software, Inc. v. Applied Systems Inc.*, 936 F.Supp. 167 (S.D.N.Y. 1996); *Rivendell Forest Products Ltd. v. Georgia-Pacific Corp.*, 28 F3d 1042 (10th Cir. 1994).

[3] 35 USC Section 101.

[4] 15 USC Section 1052, 1053.

[5] 17 USC Section 102(a) (In this work, we identify the current Copyright Act also as the "Act." This is to distinguish the current body of statutory law from the 1976 Act. Citations to the current Copyright Act—found at Title 17—will be listed below simply by section number.).

[6] Section 102(b) states that copyright protection does not extend to "any idea, procedure, process, system, method of preparation, concept, principle, or discovery regardless of the form in which it is described, explained, illustrated, or embodied in such work."

[7] Section 101 (definition of "work made for hire").

[8] A work specially ordered or commissioned from non-employees may be considered a work made for hire if it falls into one of ten categories: a contribution to a collective work; a part of a motion picture or other audiovisual work; a translation; a supplementary work; a compilation; an instructional text; a test; a sound recording; answer material for a test; or an atlas. Section 101 [definition of "work made for hire" as amended by the Intellectual Property and Communications Omnibus Reform Act of 1999, Public Law No. 106-113 (signed 11/29/99)].

[9] *Hays v. Sony Corp. of America*, 847 F.2d 412 (7th Cir. 1988). See also *Dreyfuss*, "The Creative Employee and the Copyright Act of 1976," 54 U. Chi. L. Rev. 590, 597-98 (1987).

[10] *Dreyfuss*, *supra* note 9 at 598-600.

Policy Issues

Universities wishing to develop a licensing program for digital works should first consider how their policies support this effort and allow for deployment of digital works by any type of intellectual property protection, or any combination thereof, including copyright, patent, trademark, and trade secret.

Policies that support digital works deployment recognize that digital works may be licensed under one or more intellectual property programs. As such, policies governing the management of patentable inventions and copyright works should not conflict with one another and the practices used to manage patents not necessarily applied in the management of copyright works. Effective policies tend to focus more on managing innovation and how rights, revenue, and responsibilities will be shared among participants and the institution rather than on the particular forms of intellectual property combined in a work.

Copyright policies should articulate how the university applies the WMFH doctrine for its faculty and staff and clearly state when the university intends to assert an ownership or financial interest in a work.

Practical Considerations

Most universities require their faculty to assign rights in all patentable inventions to the university. However, a similar requirement for all copyrightable works is not manageable due to the shear volume of such works created in a research institution. When dealing with sponsored research projects or other external agreements in which the institution may be required to own the resultant work in order to fulfill the obligations of the contract, universities should require disclosure of copyrightable works and ensure that procedures are in place to obtain assignments from nonemployees for such works. It may be appropriate also to require disclosure for works where ownership is likely to involve a complex, case specific analysis, such as works created by several individuals with differing relationships with the university and those works that utilize preexisting content owned by others.

The Assignment

The assignment is a transfer of the ownership of the entire work or just one or more of the exclusive rights to the work. Complete assignments to components allow the developer to use the components in any way or for any purpose. However, because assignments are valuable tools, they typically require that the party seeking the assignment have a proportionately greater amount of bargaining power such as money. Assignments are common in the publishing industry and authors traditionally, but now to a lesser degree, assign all rights in their creations as a condition of publication. In situations where an author does not need to assign his or her rights or does not perceive a benefit from doing so, the author may not be inclined to do so.

In the university setting, an effective tool for consolidation of rights is an agreement in which all contributors to a project agree that the university commissions the work. Depending on the employment status of each contributor and the nature of the work, such a work may be considered a WMFH. However, it is often more appropriate to form an agreement, in writing, in which all project participants assign their rights to the institution.

The License

A license is a grant of permission to do an act that would otherwise infringe a right, such as one of the copyright rights if the permission was not given. As with the other forms of permission discussed above, the university can be positioned to be the party seeking the permission (the licensee) or granting the permission (the licensor).

Licensing Content Owned by Others

A discussion of all the points that a university as licensee must consider is beyond the scope of this book. However, the critical question is not the existence of a license, but rather the scope of the license that the university obtains. A failure to obtain a license that includes all the rights needed will infringe just as if the license had not been obtained in the first place.[39] A licensee's failure to obtain a license of the necessary scope is a very

Those in academic environments often times believe that all content can be freely used because the fact that they are doing it in an academic environment insulates them from any charge of infringement under a "fair use" claim. The "fair use" doctrine does allow content that is not yet in the public domain to be used without the permission of the owner of the copyright to the content in certain limited circumstances.[38] However, whether a contemplated use constitutes a fair use is a very difficult, time consuming, and factually intensive question to answer. The analysis often leaves many uncertainties and yields simply a projection of how likely it is for this defense to stand up in court in the face of a charge of infringement.

Copyright law protects expressions. In order to constitute such a protectable expression, more than a minimum amount of significant expression must be provided. Creators are often tempted to take very small portions of content and reuse it in a new work. Music sampling or reusing very limited portions of a motion picture are two examples of such efforts. However, whether the contemplated use constitutes infringement requires an analysis—similar to the "fair use" analysis—that focuses on the amount of the work that is to be used and the significance of that portion in the original work. The larger and the more significant the portion is to the original, the more likely the contemplated use will be found to be an infringement.

COPYRIGHT AND THE TECH TRANSFER OFFICE

The creation of new works, such as distance education courses, university sponsored web pages, and electronic publications bring tremendous opportunities for universities to further their missions of teaching, research, and public service by the licensing of these works to others for use and further deployment. Such activity can generate new relationships with industry and add new markets for university-created works and build sustaining revenue streams back to the university and departments.

When considering deployment of copyright-based digital works it is essential to ensure that the university has the rights necessary to license the work and that the work does not infringe the works of others or carry obligations that would prevent its widespread dissemination.

Internet to an unrestricted audience. Most public performance rights are administered through performing rights associations. In the United States, the primary associations are the American Society of Composers, Authors and Publishers (ASCAP) and Broadcast Music, Inc. (BMI). The Society of European Stage Authors and Composers (SESAC) is the primary agency for European works.

Many universities enter blanket performing rights licenses that cover the public performances of vast catalogs of music by their marching bands and orchestras and by recorded means at public events or in public buildings and phone systems. However, these licenses may specifically exclude digital uses and broadcasts other than through campus radio stations. Administrators are encouraged to review the terms of any licenses their institution may have with ASCAP, BMI, and SESAC and evaluate whether or not a particular multimedia use is covered.

Separate from performance rights licenses are the many other specialized licenses available from each music publisher or through the Music Publishers Association (which grants rights through the Harry Fox Agency) or similar agency. For example, a synchronization license may be necessary so that a musical composition may be brought into timed relation with an audio-visual work, such as a motion picture. A synchronization license may be necessary also for the production of certain other multimedia applications. Mechanical licenses cover the basic rights to use a musical composition. A mechanical license may be also obtained through a compulsory licensing program defined in the Act.[36] The fourth type of license is a publishing license, which is required to reprint musical compositions in the form of sheet music.

Art Collections

Multimedia works commonly draw heavily from or focus on art collections. There is a great deal of misunderstanding regarding what, if any, permission is required. A painting may be protected by copyright or, because of its age, may now be in the public domain. A photograph of the painting, for example, may be protected by a copyright separate from that in the painting itself. But if the subject of the photograph is in the public domain, such as a painting by Monet, can the photograph of the public domain work be digitized and used freely? One should not assume that to

such activities. If the exercise of the given rights are not authorized, such as through a license, the work may constitute an infringement.

Loading Software

Loading software from a permanent storage medium, such as a floppy disk, CD-ROM or a computer's hard drive, to the computer's Random Access Memory (RAM) so that the software may be used causes a copy to be made. This action is an exercise of the reproduction right.[29]

Scanning

Scanning involves the creation of a digital copy of original analog material, such as a photograph, graphic, or text. Scanning is an exercise of the reproduction right.[30] If the work is modified from the original, the adaptation right is implicated.

Reformatting

Many motion pictures are published in a format that allows them to be shown in wide screens for movie theaters. However, such versions are too wide to be accommodated on television screens, so the movie must be reformatted for videocassettes. Making a version of an original that is different in size and contains more or less information than the original can exercise the adaptation right and produce a derivative work.

Downloading, Uploading, and Posting Works

Posting copyright-protected subject matter on computer bulletin boards or web pages so that others may make copies of the work is a common practice. However, such activity constitutes an exercise of the reproduction right and the distribution right.[31]

Translations

A translation can involve both the reproduction right and the adaptation right. A straight translation of copyrightable subject matter (e.g., text) from one language (e.g., English) to another language (e.g., French) can

limited right to reproduce and distribute the original in the collective work and not separately or with a smaller subset of components that appear in the collective work.[22]

For a compilation to be eligible for copyright protection, the developer of the compilation must have made an original and creative selection, coordination, or arrangement of the preexisting components such that the resulting work constitutes an "original work of authorship."[23] The Act grants the owner of the copyright in a compilation or collective work very limited protection. This protection can be even more limited if the components from which the compilation is formed were never or are no longer subject to copyright protection. It helps if the information is organized into original groupings or fields or the database facilitates the searching by various criteria, or new information is added or old information reformatted to make the body of information consistent throughout.[24]

For example, a collection of factual information in a database can be protected as a compilation, even though the facts themselves are not protected. A copyright in such a compilation would protect only the selection and arrangement of the information, it would not extend any protection to the facts themselves. Because the protection for such collections is "thin," and does not enlarge the scope of protection that each of the compilation components has,[25] the protection and commercialization of the collection under a trade secret theory or contract may be more appropriate.

If the compilation uses materials owned by others, such as an anthology, can the owner of a component in a compilation obtain an ownership interest in the compilation? The law does not grant such rights. A compilation is not the same as joint work, and absent an agreement, the owner of one of the components in a compilation obtains no rights in the compilation as a whole.

Derivative Works

When an original work is "recast, transformed, or adapted" to form another work the work is termed a "derivative work."[26] A translation,

The joint author as an owner can also transfer his/her/its interest to a third party (by written assignment).

Joint ownership is often seen as a way to let everyone share in the credit for a work, but this may not always be desirable in situations where one author desires control over the timing and forum of publications. When works are jointly owned, any joint author could authorize publication without the consent of the other authors.

While issues of control can be avoided by consolidating rights via assignment with one party, if desired, and licensing back rights to the joint authors according to an agreed upon plan, this "fix" technically cannot change the authorship determination and therefore how long the copyright term will last. When an entity such as an institution is the author, the copyright term is ninety-five years. When authors are individuals, the copyright term is in effect for the life of the last to survive author plus seventy years. This may or may not be a significant issue in the short term, but one that may create problems in the future.

WORKS INCORPORATING PREEXISTING CONTENT

New products that result from the joining of, for example, text, graphics, photographs, sound recordings, or movie clips can be valuable educational and entertainment resources for consumers. From the perspective of the product developer, the use of such preexisting content proportionately diminishes the developer's need to develop new content. New content is costly and time consuming to produce. The Internet and the World Wide Web have made available to the public a wealth of information that often cannot be found through other sources. These new sources and bodies of information beckon the creator. The question is whether and to what extent the creator may utilize materials found on the Internet, and who owns what rights in the resulting work. The following seeks to help the creator and the technology licensing officer to chart a safe course through these inviting waters and avoid the Sirens' song.

This section begins with a discussion of the broad issues that preexisting content raises, then focuses on the special issues that specific uses of preexisting content raises, and finally discusses what content may be used

commissioned works. Some broadly written agreements could effectively assign all research results to the sponsoring agency, producing undesirable consequences for the faculty member's ongoing research program, use of the work by the institution, and publication of research results.

Multiple Contributions or Authors

Works of great commercial importance are rarely created by the efforts of only a single individual. Many works created at universities, such as on-line or televised courses, software and web pages typically combine the creative efforts of several individuals. Merging several original contributions into new works can pose many complex copyright questions.

One question raised is what rights do the individual contributors have in the resulting work that is formed from the combination of their various contributions. One possible answer is that a joint work is formed and that all contributors are joint authors and joint owners of the work. Whether a joint work is formed depends upon whether the creators all intended, prior to the initiation of the creative efforts directed to the work, to form an inseparable or interdependent combination of the individual contributions.[12] An example of a joint work in which the contributions are merged to form an inseparable whole work is a computer program created by two or more programmers in which each agrees to work on the program such that the contributions of any one of the programmers cannot be distinguished from the work of the others. An example of a joint work in which the contributions are separate but joined to be interdependent is a computer program in which the interface is designed by one author and the code is created by another author with the intention that the separate works be joined to form a single work. Another example on an interdependent joint work is a musical work in which the music is written by one author and the lyrics are written by another and both have the intention that the contributions be joined to form a single musical composition.

To form a joint work, the contributions need not be equal in quality or quantity.[13] The contributors also need not work in the same place or at the same time or even know the identity of the other contributors. For a contributor to be considered to be a joint author, his or her contribution

result in authorship. The institution, however, may wish to consider establishing policies that allow it to recoup the investment it made in the development of certain works if and when they are commercialized.

Authorship and Works Made For Hire

The Act provides that initial ownership of copyright vests with the author of the work unless the work is created by an employee within the course and scope of employment, in which case, the work is considered a "work made for hire" ("WMFH") and the employer owns the work.[7] Further, a party other than a employer may also establish a certain work as WMFH and become the owner of the work, if the work falls into one of ten established categories[8] *and* the hiring party and the hired party expressly agree in a written agreement signed by *both* parties that the work is a WMFH. If the work is not of the appropriate type or there is no written agreement that identifies the work as a WMFH, it is *not* a WMFH.

It is often not easy to determine whether a work is a WMFH in the university setting. Faculty, although employed by the university, have a unique relationship with respect to control over their works and the premise of academic freedom and scholarly inquiry. This relationship was reflected in earlier versions of the copyright law in which the term WMFH was not defined and many courts held that faculty writings were presumed not to be works made for hire under a "teacher exemption."[9] The 1976 Copyright Act appeared to abolish this provision,[10] and some courts have interpreted that the 1976 Act is sufficiently broad to consider all faculty works WMFH.[11] Others argue that the teacher exemption still applies and thus the issue remains at least in the minds of some to be unsettled.

University policy may help to resolve the ambiguity in the law on this issue. Traditionally, many universities have taken the position that faculty are "employed" to teach and conduct research, not produce copyrightable works. As such, many universities have policies that clearly state the university does not consider some or all copyrightable works created by their faculty as WMFH. This tradition served institutions and faculty well when faculty works were typically journal articles, textbooks, and other scholarly publications. However, with the dramatic change in technology over the past few decades, faculty works may now take the form of web

right if a project uses photographs, voice sound recordings, or names of individuals. Even if the individual is deceased, the right of publicity may still be implicated as some state laws provide that this right survives death. If the project is or may be intended for wide distribution such as on the Internet, it is recommended that the project be able to clear the law of the state with the most restrictive law on point.

Copyright

Patent rights result only after the U.S. Patent and Trademark Office (USPTO) grants a patent. Trademark rights are established upon use of the mark (or the filing of an intent to use application directed to the mark). Trade secret rights come into existence upon the development of valuable information that is not generally known. Copyright law provides protection of an original expression as soon as it is rendered in tangible form—regardless whether the form is digital or analog. Other than fixing an original work in a tangible form, nothing else is necessary to establish this form of intellectual property protection. In its simplicity in obtaining protection, copyright is like trade secrecy.

Copyright is a valuable form of intellectual property protection, but like all forms of protection, it has certain shortcomings as well. Unlike patents, which are granted only for novel, non-obvious inventions, copyright may be granted to many similar works that represent original expressions of the same ideas. This issue comes up frequently with respect to software because it contains both original expression and functional ideas. Copyright does not protect ideas that may be contained in a protectable expression and thus would not protect against someone else entering the market with a competing software product based on the same idea.

While many intellectual properties may be brought together to form a software product, a multimedia work, or in an online publication, our focus in this booklet shall be on the content that can be protected by copyright law.

Patent

The U.S. government grants for a limited time exclusive rights to useful, new, and nonobvious inventions or designs. The owner of a patent can prevent others from the manufacture, use, offer for sale, or sale of the patented invention in the U.S. and the importation into the U.S. of the same. Patent protection for digital-based products and technology historically has been used sparingly relative to copyright and trade secret protection. One reason is that the courts have employed changing standards to determine whether and what digital-based technologies can be protected by a patent. Another significant factor is the time and cost involved to obtain a patent. It can take some 18 to 24 months and in excess of $10,000 to obtain a patent on software. For technology that is rapidly changing, the value of a patent may be limited.

Many elements of or an entire system that uses content in digital form may qualify as patentable subject matter. A patent may be granted to anyone who "invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvements thereof."[3] These classes of subject matter taken together include practically everything that can be made or used by humans.

This robust form of intellectual property protection, however, adheres to strict guidelines. Digital developers should consider whether a patent would provide the scope of protection needed for their purposes. Software may have both patentable and copyrightable elements and a claim of copyright protection for expression does not preclude patent protection for a novel idea in the form of the use of an algorithm. It should also be noted that patent protection does not allow independent creation. Thus, if someone has obtained a patent, all others must obtain a license to manufacture, use, sell, offer to sell, or import the invention, even if the exercise of these rights is unintentional or without knowledge that a patent exists.

Trademark

A trademark is any symbol—such as a word, acronym, phrase, or design—that identifies and distinguishes the source of goods. A service

In addition to the use of the Internet for access to works, the use of the Internet for dissemination of university-created works makes universities publishers, as well as creators, of content. The ease and breadth of publication achieved via a web page calls into question whether a scholarly use of someone else's work is a fair use. Even if a work is not published for profit, broad distribution of a work can adversely impact the original market for a work. Therefore, even though noncommercial or educational, the use of someone else's content may not be considered fair.

In the following sections, we will provide an overview of the complex issues surrounding the creation and deployment of digital works in universities. Throughout this book we will use the terms "works," "content," or "information" interchangeably to mean copyright-protected subject matter in digital form.

INTELLECTUAL PROPERTY IN DIGITAL WORKS

Part of the challenge in creating and managing software, multimedia, digital media and web-based content is that there is no single body of law that governs its ownership and protection. Commercial entities typically look to copyright, patent, or trade secret protection for software or other digital content. Copyright is clearly the most important form of protection for such works. However, other forms of protection—such as trademark and the right of publicity—may come into play in either the creation or use of digital content. The potential profitability of products built around digital content creates an incentive for owners to seek as many forms of protection as possible. Each of these forms of protection has attributes and shortcomings. As a result, it is important for developers of digital works to understand how all intellectual property laws may be employed to protect any given work.

Trade Secret

Trade secrecy is the most common form of intellectual property protection in the business world, and, in particular, it is commonly used in the computer industry. One major reason for this is that trade secrets can cover a wide spectrum of information—including material that is not eligible for copyright (such as processes and ideas) or patent protection

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Beatrice F. Bryan
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A Guide for Authors and Licensing Officers

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