Basic issues of Francophone, Anglophone, and international intellectual property, with regard to unpublished materials

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ABSTRACT

The paper discusses basic principles of intellectual property and their impact on DATAD. Intellectual property consists of various forms of legal protection for intangible mental productions. The paper focuses on two of the many variants: copyright and patent law.

Contemporary national copyright laws display a strong tendency toward two distinct traditions: the economically-oriented corporatist approach of the United Kingdom, and the creator-centered individualist one of continental Europe and much of the rest of the world, including various Francophone countries. Fortunately, the differences among national laws that this distinction generates do not have major consequences for the legal status of DATAD.

Regardless of tradition, in the case of any particular dissertation, in the first instance the graduate student owns the rights in both the potential patent and the actual copyright. The analysis, however, must proceed beyond initial ownership. Again, all national intellectual property laws are united in the proposition that intellectual property rights are subject to transfer. This means that, in reality, ownership of and control over students' dissertations may be governed not by the default rules of intellectual property law but by general principles of contract as adapted for use in this particular environment.

For DATAD, the successful realization of the project's aims of full-text digitization and display of dissertations depends on the success of participating institutions in securing from graduate students a non-exclusive license of the right to archive their dissertations electronically and make them available on a dedicated website. This copyright license should be secured the outset of the students' graduate studies, as a quid pro quo for the various benefits that the university will confer on them during their academic careers.

The most efficient and effective way to assure uniform licensing of the rights necessary for the DATAD's project is through university intellectual property policies. Such policies are effectively contractual, in that by agreeing to matriculate (or accept employment) at a particular university, individuals agree to be bound by their terms.

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The paper then discusses how the dissemination of dissertations through DATAD may affect the intellectual property rights associated with them, and what steps (if any) member universities should take to safeguard and maintain those rights. The paper concludes with a look ahead at potential issues developing in the protection for traditional knowledge (including folklore, technological and scientific know-how, and agricultural methods).

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Introduction

At their core of this presentation is a question: How much (in what way) should participants in the DATAD archive project be concerned about intellectual property? Of course, national and international laws of intellectual property originally were designed to foster creativity and the exchange of ideas. This would suggest that these laws should work to promote and enable DATAD. And I am convinced they can, if properly understood. But there is also a risk associated with focusing attention on intellectual property in the DATAD planning process. In today's world of commodified culture, laws of literary, artistic and industrial property too often in invoked as a way to limit rather than to promote cultural progress. In this climate, it is all too tempting to view intellectual property as a set of impediments to creative projects, rather than a source of support for them. At least where DATAD is concerned, this would be an unfortunate error.

Broadly speaking, intellectual property consists of various forms of legal protection for intangible mental productions. Obvious examples include copyright, trademark, patent, unfair competition, rights of publicity, etc. This paper focuses on two of the many variants: copyright and patent law (branches of the field which, from country to country, are governed primarily by statute law, rather than by judge-made or common law). Broadly speaking, copyright is a branch of intellectual property that provides authors (or their successor-in-interest) with a limited monopoly in the original structural choices they make in expressing their ideas and mental impressions; patent law, by contrast, grants some innovators a state-sanctioned monopoly in their new and useful discoveries as such. The threshold standards for copyright protection are relatively low, while the criteria of patentability are relatively demanding. And while copyright automatically protects all qualifying works, published or unpublished, patent protection attaches only to a small number of innovations for which protection is affirmatively sought and granted. As a result, copyright protection is easy and cheap to acquire and maintain, which patent protection is difficult and expensive.

At the outset, I note that intellectual property has both national law and international dimensions. Although there are no true international norms in the field – in contrast, for example, to the field of human rights law – treaties do contain minimum standards for domestic legislation. Even more important, perhaps, is that fact that international intellectual property treaties require that all parties (meaning an overwhelming majority of the nations in today's world) provide mutual recognition, pursuant to the principle of "national treatment," to productions originating within the territories of other parties. Thus, for example, the extent of copyright protection available for any given work is the sum total of whatever is provided in the national laws of the member states of the World Trade Organization and the Berne Union for the Protection of Literary and Artistic Property. A similar principle is at work in the international patent system, with an important caveat: as a general matter, patents must be perfected by application and grant in every country where protection is claimed.

A simple illustration of the copyright/patent distinction is the legal status of a dissertation on a topic in chemical engineering which proposes an improvement on a familiar process for producing a useful compound. From the moment the thesis is complete (or even before) the text and illustrations that the author employs to explain this discovery are effectively protected by all national copyright laws. In theory, at least, these expressive choices thus may be protected against reproduction throughout the world. But the discovery the dissertation reveals may not be. Whether it is will depend on whether this innovation is awarded a patent by the intellectual property bureaucrats in various countries where applications are made.

In one respect, however, copyright and patent are similar. Both evolved in the context of early modern European commercial culture; not surprisingly, neither values knowledge traditions that have been transmitted over generations within indigenous communities. In recent years, there have been proposals to correct this omission. Thus, this paper also touches on a third, speculative, and emergent area of intellectual property law that sometimes is referred to as "traditional knowledge protection."

In the discussion that follows, then, the focus will be on the varying provisions of various national law systems. Where patent law is concerned, the differences among and between national laws – though significant – cannot conceal the fact that all national laws are, in effect, branches of the same tree. In the case of copyright, the picture is not so straightforward. In fact, while contemporary national copyright laws display a strong tendency toward convergence, they continue to exhibit traces of two distinct traditions: the economically-oriented corporatist approach of the United Kingdom and most of its former Anglophone colonies and possessions, on the one hand, and the creator-centered individualist one of continental Europe and much of the rest of the world, including various Francophone countries. Most of the countries actually or potentially involved in the DATAD project belong to one or the other of these traditions. Fortunately, the differences among national laws that this distinction generates (around issues such as "moral rights" and the ownership of works by employed authors) do not have major consequences for the legal status of DATAD.

Intellectual Property Ownership

At the threshold of an intellectual property analysis of the DATAD project is a question: In the case of any particular dissertation, who has the initial authority to make important decisions about its disposition, including giving authorization for its inclusion in a database)? The issue we encounter here is a variant of the more general question: "Who owns academic work?" (memorably stated in the title of Corynne McSherry's 2001 book). We may state that variant with even greater precision as follows: When a graduate student prepares a dissertation, who has intellectual property ownership of it in the first instance (assuming that is, that no assignment or other transfer of ownership has been made)? To that question, there is a simple answer: in this default condition, the graduate student, himself or herself, owns the rights in both the potential patent and the actual copyright. This conclusion follows from that fact that it was this individual who was responsible for the execution of the work and the discovery of the invention (if any) that it discloses. As far as the potential patent rights are concerned, the initial vesting of rights

in inventors is conventional world-wide. With respect to the copyright in the dissertation, even the corporatist Anglophone tradition, which demonstrates a far higher tolerance for treating corporate bodies (including universities and other academic institutions) as default owners of the employee's intellectual property, stops short of treating graduate students (or for that matter, faculty members) as "employees for hire" in connection with their research activities.

The analysis, however, must proceed beyond initial ownership. Again, all national intellectual property laws are united in the proposition that intellectual property rights are subject to transfer. The only exception to this principle, not directly relevant to the DATAD project, is the reservation to the author of certain so-called "moral rights" in copyright, such as the right to be identified as the author of the work when it is made available to the public, and the right to object to certain modifications and distortions of the work.[1] This means that, in reality, ownership of and control over students' dissertations may be governed not by the default rules of intellectual property law but by general principles of contract as adapted for use in this particular environment. The most significant of these modifications is the rule, present in some although not all national laws, that grants and transfers of intellectual property rights must be made explicitly and in writing.

The Nature of Exclusive Rights

Intellectual property ownership confers a bundle of so-called "exclusive rights" – to do or to authorize the doing of various acts with respect to the subject-matter. The greatest threshold barrier that intellectual property law erects to the fulfillment of DATAD's goals is a function of certain "exclusive rights" that copyright ownership confers on authors – in this case the students whose dissertations are subject to electronic archiving. It is universally true that libraries and archives do not require permission from

[1] "Moral rights" principles are inapplicable to the DATAD project because its stated objective include proper crediting of dissertation authors and the preservation of a complete, integral record of dissertations themselves.

copyright owners to hold and make available limited numbers of physical copies of works in their own collections, and even to exchange them between institutions. But it is just as generally apparent that libraries and archives do require authorization to undertake other acts related to their core missions. Thus, for example, a library is not free to multiply physical copies of a work on demand, whether or not for an associated fee -- even if the goal of the exercise is to promote the spread of culture.[2] Posting protected works to publicly accessible websites from which they can be downloaded in whole or part is another activity in which it is likely that libraries and archives cannot engage without authorization. Although the law of copyright on the Internet is still in development, most national laws would treat such posting as an authorized act of "distribution," "display," "communication to the public," or (alternatively) "making available" (the last being a term introduced by the 1996 World Intellectual Property Organization Copyright Treaty).

A Minimalist Approach to Licensing

One of the common errors of would-be licensees of intellectual property is the assumption that the only useful grant of rights is a comprehensive or all-inclusive one – an assignment "in gross," so to speak. In actual practice (and in all legal traditions) the various aspects of the bundle of rights that belong to the rightsholder may be and frequently are separately granted, and may be conveyed on either an exclusive or a non-exclusive basis. A non-exclusive license for a particular use in a particular medium is, by any measure, the least far-reaching form of grant, and therefore the one that imposes the least burdens on the grantor.

Universities need not claim general ownership of their graduate students work in order for DATAD to succeed. Rather, the successful realization of the project's aims depends on the success of participating institutions in securing from graduate students –

[2] Whether permitting members of the public to photocopy parts of works on library or archive premises is a restricted act – that is, one that cannot be undertaken without permission from or payment to the copyright owner – is a question on which national laws differ.

at a minimum – a non-exclusive license of the right to archive their dissertations electronically and make them available on a dedicated website. This copyright license should be secured at the outset of the students' graduate studies, as a quid pro quo for the various benefits that the university will confer on them during their academic careers.[3] It is critical that these licenses be secured early, and that they be secured in all cases. To seek such licenses only selectively, or only at a more advanced point in students' studies, entails an unacceptable risk of failure.

This is so because in an academic world where professional advancement is tied to individuals' publication history, special importance is attached to first books (often revised versions of Ph.D. dissertations) issued by well-known scholarly publishers. And these publishers may be disinclined to accept manuscripts the contents of which already have been made publicly available. Unless limited grants of rights to facilitate the operation of DATAD are uniformly made part of the "up front" understanding between university and students, there is a risk that the writers of dissertations may later refuse to make them available, reasoning (rationally and probably correctly, at least in the short term) that a work's previous accessibility may render it less publishable.

Grants of Rights and University Intellectual Property Policies

Probably the most efficient and effective way to assure uniform licensing of the rights necessary for the DATAD's project is through the medium of university intellectual property policies. Such policies are effectively contractual, in that by agreeing to matriculate (or accept employment) at a particular university, individuals agree to be bound by their terms. Obviously, intellectual property policies deal with a range of

[3] Note, however, that in some national copyright laws bar effective prospective grants of a copyright interests – that is, licenses of rights in works that do not yet exist. In such jurisdictions, universities participating in DATAD should make it an invariable practice to inform students at the outset of their studies that they will be required to grant non-exclusive licenses of electronic archiving and "making available" rights in their dissertations as (for example) a condition of receiving their academic degrees.

issues,[4] of which the division of intellectual property rights between institutions and students is only one. Nor, where that issue is concerned, is the minimalist approach suggested above the only alternative, although it is the least intrusive one. In theory at least, universities could assert additional claims up to and including outright ownership of dissertation copyrights or (more relevantly) patents in inventions that students devise during their studies. Or they could include provisions like those of some university intellectual property policies in the United States, which call for joint ownership (and the sharing of royalties according to a stated formula) between the institution and the individual author or inventor. Whatever approach a given institution policy takes, however, the underlying rationale is the same simple and compelling one: Universities (and indirectly, the governments that support them) invest heavily in institutional research conducted by faculty and graduate students, providing salaries or stipends, labs, libraries, information technology, and other forms of material support, and it is reasonable and proper that they should receive some return on that investment.

In practice, how much of a return on investment universities should demand, beyond the bare minimum necessary to support projects such as DATAD, is a difficult question, on which the recent experience of some institutions in the United States may shed light. Currently, the practices of various private and state-sponsored universities in the U.S. differ markedly on this question. Some (though fewer than before) take a laissez faire approach to ownership issues, effectively leaving all rights with the individual. However, there is a growing trend, especially in the larger research universities, toward more aggressive approaches. Although the focus of these policies is on ownership of faculty and staff work-product, the accomplishments of graduate students are often swept in under them because those students have been designated as research fellows (or afforded some other low-level institutional rank). The confiscatory character of these policies has proved to be one of the most commonly articulated grievances of junior staff in American academia. These grievances are exacerbated by the fact that these policies often are non-comparable from institution to institution.

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[4] These include, in particular, policies on plagiarism and proper attribution of sources in academic

University intellectual property policies, once in place, create sets of vested expectations that make subsequent revisions difficult. A premium attaches, therefore, to making wise choices when such policies are first devised and implemented. The universities participation in DATAD have an opportunity to learn from the negative experiences of institutions in the United States and elsewhere, by working collectively to devise equitably-based policies which will be uniform from institution to institution. Even short of that, they could work collectively to develop models of "best practices" that would inform practice at the institutional level.

Maintaining Intellectual Property Rights in the DATAD Environment

I turn now to a different issue: how the dissemination of dissertations through DATAD may affect the intellectual property rights associated with them, and what steps (if any) member universities should take to safeguard and maintain those rights – on their own behalf and that of their students. For purposes of this discussion, it is assumed that institutional intellectual property policies are in place to determine who – as between the university and the student – can claim ownership of the relevant rights, and who will share in the economic benefits (if any) of their exploitation. What remains, then, is a question of intellectual property management: how to fulfill to goal of promoting public accessibility of research findings without compromising intellectual property interests.

Broadly speaking, and without regard to the legal tradition involved, the maintenance of copyright interests should present no problem. There is no tension, at least in theory, between limited disclosure of a work and the continued assertion of control over other uses of it. Copyrights are persistent and robust legal rights. Even after a work has been disclosed, copyrights can be enforced against plagiarism or unauthorized republication. If anything, digital technology simplifies the process of enforcement.[5]

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writing, and procedures for resolving intra-institutional intellectual property disputes.

[5] Exactly what uses can – or can't – be made of a copyright work that has been publicly disclosed is, of course, a function of national law in the country where the use occurs. No national law, however,

Specialized software programs designed to detect plagiarism in any work (including student papers) submitted in electronic form is becoming widely available; such tools would be available to assure that material from the DATAD database is not misused by students in the future.

Thus, there is no legal necessity to build into the DATAD software an end-user license agreement incorporating detailed restrictions on the re-use of material derived from the database.[6] Nevertheless, it would be possible to build into the user interface a clear statement to the effect that while a range of uses of materials from DATAD are allowed, others are reserved. Explicitly reserved uses might include (for example) commercial publication, preparation of new versions of the work, adaptation to other media, and so forth. This is the approach taken in some recent experiments in "open access" information dissemination (such as the Creative Commons project). As I've noted, the statement of such reservations are not strictly speaking required – even if unstated, they are implied.

To the generalization just offered, however, I would add one qualification. At a minimum, the DATAD end-user license agreement (or EULA) should provide that in any re-use of material derived from the database, the user will provide full credit to both the author of the dissertation and the university in which it originates – in effect, a contractual assertion of an expanded version of the "moral right" of attribution. Because the content of "moral rights" differs so widely from jurisdiction to jurisdiction (and, in any event, "moral rights" protection probably does not extend beyond individuals to institutions) such a term will be important if DATAD is to have the desired effect of promoting the reputations of African scholars and research universities.

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permits either wholesale plagiarism or unauthorized reproduction.

[6] Likewise, the use of "digital rights management" technology to control the use of archived material will probably not be practically or legally justified in cost-benefit terms.

Maintaining the Opportunity to Claim Patent Rights

Maintenance of potential patent rights in inventions disclosed in dissertations presents another, very different set of challenges. As has been noted, while copyright attaches automatically upon on a work's creation (or, in some jurisdictions, its "fixation" in material form), patents exist only by virtue of an affirmative governmental act. National laws uniformly restrict patent grants to inventions that display the characteristic "novelty," and an innovation that is sufficiently disclosed before a patent is sought lacks that characteristic, by definition. Thus, it is clear early publication entails risks for academic innovators, though the full nature and extent of those risks is a function of United States law. The United States and Japan, for example, provide for a grace period following publication in which applications to patent an otherwise novel invention may be filed. Many other national laws, however, make no such provision.

Moreover, the general disclosure that can operate to negate patentability need not take the form of conventional publication (in a book or journal, for example). The inclusion of a writing describing an invention (such as a dissertation) in a web-accessible database is a form of disclosure. Anyone with access can, upon entry of appropriate search terms, retrieve the dissertation and learn about its contents. Although there is no direct authority on the subject, it seems likely that, in many jurisdictions, this would constitute sufficient disclosure. In the United States, for example, it is clear, that merely listing a paper describing an invention in the catalogue of a library open to the public constitutes general disclosure – whether or not any library patron sees the catalogue entry or consults the paper!

If dissertations describe inventions that may generate value (in the form of royalties) for the inventor and/or the university, their inclusion in DATAD (at least in full text form) should be delayed until such time as patent rights, if available, can be perfected. Unfortunately, however, this is easier said than done. Patent applications are difficult and relatively expensive to prepare and file; moreover, since there is no "international patent," as such, applications must be filed in each of the separate

jurisdictions where protection is sought. To do this routinely for any invention of possible value reflected in a dissertation would be beyond the means of the DATAD universities, or – for that matter – any university. On the other hand, it is unacceptable from the standpoint of DATAD's goals to defer indefinitely the inclusion of all such dissertations.

Developing Technology Transfer Capabilities

The solution to the dilemma describing in the preceding section lies in developing an institutional capacity to assess in a timely fashion which inventions by university staff and students (including those incorporated in dissertations) are both legally patentable (in terms of the various statutory criteria other than "novelty," such as "non-obviousness" and "reduction to practice") and also likely to be of real value. This is, in effect, a form of legal/technological "triage," allowing the concentrating of resources on the relatively small number of innovations that have actual legal and economic potential. In the United States (and, to an extent, Europe), a number of universities have developed so-called "technology transfer" offices, and used them effectively. Typically, these offices not only evaluate staff inventions but also are involved (sometimes with the assistance of outside counsel) in the actual process of applying for and securing patent protection. Thus, such an office should be staffed with individuals knowledgeable in science and technology, innovation marketing, and patent law.[7]

This capability to assess and realize the potential of inventions is not easy or inexpensive to develop. For those universities (and this includes most universities in most places) that cannot justify the costs of a fully-staffed in-house "technology transfer" operation, there are other alternatives. A number of universities (for example, the participants in the DATAD project) could join together into a consortium for this purpose. Alternatively, it is possible to contract with a commercial service provider for these services, usually in exchange for a share of royalties from inventions identified, patented and successfully marketed.

[7] In some cases, technology transfer offices also will participate in the management of a

Rights of Third Parties

A recurrent concern around academic archiving projects such as DATAD is the potential for complaints from individuals who believe that their own words or thoughts have been appropriated in texts that are included in the database and thus made available to the public. This concern, however, is easily overstated. Certainly, there is a real risk that, on occasion, the student author of an archived dissertation may have failed to fully credit source materials, thus opening himself or herself to a charge of plagiarism – a violation of academic ethics though not necessarily of intellectual property law. It is even possible that on rare occasions the author borrowed so much material from a previous text that the taking amounts (as a technical matter) to copyright infringement.

In such cases, however, the primary ethical or legal responsibility lies with the author of the dissertation itself, not with the entity that innocently included it, as a matter of routine practice, in a comprehensive archival record. Nor, as a practical matter, is there likely to be much, if any, liability for money damages in the highly unusual case where the provider of the archive also is complained against. At most, the responsibility of the operators of the database is to remove or disable access to this particular record in the event of a credible complaint – and pending a decision by a court or other authority as to the merits of that complaint. In short, conventional concerns about liability to third parties should not deter in any way the realization of the DATAD project.

Traditional Knowledge Rights – An Emerging Field of Intellectual Property

A potentially interesting issue relating the rights of third parties arises from the increasing recognition, in national laws and at the international level, of the rights of indigenous and other communities to exercise some control over use of the traditional knowledge of which they are custodians. Suppose, for example, that a musicology graduate student writes a dissertation documenting field work he or she has done on the

university's portfolio of copyrights.

musical traditions of an isolated tribal community – or a degree candidate in pharmacology has written up that community's medicinal use of extracts taken from local plants. In the past, this would have posed no legal or ethical problems. Today, we may be troubled by the ethical dimensions of these scholarly practices, but can rest relatively certain that they will not be a source of legal liability. Tomorrow, however, may bring a different legal order – and with it a new set of challenges for projects such as DATAD.

Traditional knowledge (including information about the curative properties of natural substances, agricultural techniques, songs and stories, artistic motifs, and more) derives its cultural value and practical importance from the fidelity with which it is transmitted over many generations. As has been suggested above, conventional intellectual property law (both patent and copyright) overlooks or devalues that which, by definition, cannot be novel or original. Traditional knowledge (both bioknowledge and cultural knowledge) has been regarded, in law and in practice, as a form of naturally occurring raw material. As a result, outside investigators have frequently appropriated traditional knowledge for academic and commercial purposes, generally without the prior informed consent of the custodians.

Recently, a few nations have adopted what are, in effect, new intellectual property regimes governing some or all forms of traditional knowledge, and requiring informed consent and/or benefit sharing as a condition of its exploitation by outsiders. These laws have gone largely untested to date; in particular, their applicability, if any, to non-commercial academic research is unclear. Moreover, their effectiveness is severely limited by the fact that they operate only within the territories of the countries in question. Currently, however, international organizations (including UNESCO and the World Intellectual Property Organization) have identified the development of an international regime for the protection of traditional knowledge as an important aspect of their work programs. If their objectives are accomplished, national laws on traditional knowledge will proliferate, and rights relating to traditional knowledge will be recognized across national boundaries.

It remains to be seen whether aspirations for meaningful protection of traditional knowledge will be fulfilled. Even if it were the case, however, the burden of compliance with new legal regimes in connection with dissertation research would fall primarily on graduate students and their home universities, rather than on an institution such as DATAD. Again, it might be incumbent on DATAD to be prepared to remove or disable access to items about which apparently justified complaints concerning misappropriation of traditional knowledge had been made. But except in a few highly unusual cases, this would be the practical limit of its exposure.

Conclusion

In connection with the launch of an "open access" project as significant as DATAD, it is appropriate to examine the applicable legal environment, particularly that of intellectual property. A review of that environment suggests some important issues. Careful attention should be paid to the contractual terms by which graduate students agree to the inclusion of their dissertations in the database, and both DATAD and its constituent members should be attentive to issues of intellectual property management (especially where potentially patentable inventions are concerned). A review of applicable intellectual property standards suggests that the organizers of the DATAD project can proceed confidently – albeit carefully – without serious concerns about legal liability.