

Considerations on Policies of University Digital Collections*

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Abstract

We examine the factors (creation type of the material, acquisition method, copyright ownership etc.) and the access and reproduction policies of the digital collections of ten leading university digital libraries. We classify the policies according to the factors and analyze their relation, showing how the acquisition method and the copyright ownership define the access and reproduction policies for the digital collections. We conclude with rules about which factors lead to specific policies. For example, when the library has the copyright of the material, the reproduction for private use is provided usually free with a credit to the source or otherwise mostly under fair use provisions and the commercial reproduction needs written permission from and fees given to the library. Finally, we extract the common practice on access and reproduction policies and we map the conventional to digital policies.

1 Introduction

We examine the factors and the access and reproduction policies of university digital collections. We are interested in non-commercial libraries that have large digitization projects and preferably, they create or use common software (such as *Greenstone*) to provide their digitized or digital content. In addition, we are interested in libraries, which have collections with various *creation types* (digitized, born-digital) or types of material (video, audio etc.), various copyright owners (libraries, individuals, organizations such as publishers etc.), diversified access and reproduction policies and various acquisition methods (license, purchase, digitization of library or third-party material etc.). The examined libraries, corresponding to the above criteria, are central academic libraries of big universities that act as the coordinating bodies for all the department libraries of the universities.

This paper is organized as follows. In section 2, we analyze the access and reproduction policies of the university digital collections. In section 3, we classify

the policies (access, reproduction etc.) according to the factors (creation type of the material, acquisition method, copyright ownership etc). We analyze each policy and we derive some generalized rules about the relation of the factors and the policies. In section 4, we extract the common practice on policies. In section 5, we map the conventional to digital policies and we compare them. Finally, we conclude in section 6.

2 Policies of the digital collections

In this section, we analyze the access and reproduction policies of the university digital collections for each library separately. We also considered the policies of the collections of other academic libraries, such as the *Miguel De Cervantes Digital Library* etc. We did not include them here, because they had similar policies with the ones in the examined collections.

2.1 Policies of the Aladin Digital Library (ADL)

The *Aladin Digital Library* (ADL) contains digitized collections, which, except the digital audio files of the *Felix E. Grant Collection*, are freely accessible for onsite and offsite users through the Internet. The users can view and download the digitized material without restrictions or fees. The users can find information about the reproduction terms and the copyright status from the metadata. Usually, for the reproduction and the copyright status, the users should consult the universities that obtain the material. In most of the cases, the users can reproduce the material for private use with a credit to the source. Usually, a watermarking indicates the copyright owner or the source, which is the most of the times the university.

The digital audio files of the *Felix E. Grant Collection* are restricted to registered onsite users for personal and educational use. Any other use, including but not limited to commercial or scholarly reproductions, redistribution, publication or transmission, whether by electronic means or other, without prior written permission is strictly prohibited. These materials may be subject to additional restrictions including but not limited to copyright and the rights of privacy and publicity, of parties other than the University of the District of Columbia. Users are solely responsible for determining the existence of such rights and for obtaining any permission, and paying any associated fees, which may be necessary for further use [11].

2.2 Policies of the Dartmouth College Digital Library (DCDL)

The *Dartmouth College Digital Library* (DCDL) contains born-digital material copyrighted by the DCDL or licensed (material) and copyrighted by other owners. Due to licensing agreements, many digital resources have a variety of access policies.

Some digital resources (e.g. governmental information) are freely accessible for onsite and offsite users through the Internet. Others are restricted to members (faculty, student and staff) of the *Dartmouth College* (DC) community. The DC members have access to the restricted digital resources on and off-campus. In addition, some of the restricted digital resources cannot be accessible off-campus by the DC members because of the licensing agreements. The offsite users that are not affiliated with the DC cannot have access to these resources [1].

The *copyright policy and guidelines* of the DC clarifies that the copyright owners have the exclusive right to reproduce, distribute, perform and display publicly, and prepare derivative works based on copyrighted works. Except cases of fair use, the reproduction requires the written permission of the copyright owner (the DCDL or any other copyright owner) [4].

2.3 Policies of the Harvard University Library (HUL)

The *Harvard University Library* (HUL) contains digitized and/or born-digital material, which is owned, held or licensed by the *Harvard University* (HU). Licensing comprise the basic acquisition method of the digital resources for the HU. The HU negotiates the licenses terms proactively to secure broad rights of information use for educational and research purposes. The other acquisition methods are the purchase of third-party material and the digitization of the conventional material owned by the HU.

The digital material is provided solely for the purpose of teaching or individual research. Any other use, including commercial reuse, mounting on other systems or other forms of redistribution, reproduction, systematic downloading and copying requires permission of the appropriate office of HU [7]. In any case, either when the material is copyrighted to Harvard or to any other copyright owner the HU is responsible for the use and the reproduction of the material.

Most digital resources are only onsite (on and off campus) accessible to current Harvard faculty, students, and staff. Others are only on-campus onsite accessible because of the type of the material (e.g. CD-ROMs) or the licensing agreements (on-campus use with limited simultaneous users). The offsite users that are not affiliated with the Harvard community have not access to the most digital resources. However, there are exceptions, such as the *Harvard and Radcliffe Annual Reports* that are accessible for all.

2.4 Policies of the Northwestern University Library (NUL)

The *Northwestern University Library* (NUL) acquires born-digital material through license and/or purchase and digitizes its own copyrighted or free third-party material. Each collection (electronic, digital, and printed) or type of material in the NUL may have different copyright or other reproduction restrictions. As a rule, the user that wants to use or reproduce materials from the NUL collections must contact the NUL, by specifying what materials he/she is interested in, and the NUL will tell the user of any copyright or reproductions restrictions on a case-by-case basis.

The NUL provides access to its holdings for educational, personal, and non-commercial use, provided that ownership of the material is properly cited. Written permission of the copyright holders, NUL and/or other right holders, is required for publication, distribution, reproduction, or other use of protected items beyond that allowed by fair use [12].

Materials held by NUL may be protected by U.S. Copyright Law and/or by the copyright laws of other countries. Copyright law protects unpublished as well as published materials. For web sites and digital files originated in the NUL, the library retains all rights, including copyright, in all data, images and text. The user that wishes to use either published or unpublished materials from the NUL collections in a publication, must determine whether the work has passed into the public domain and is no longer under copyright protection, or find the copyright holder and get permission to reproduce the material. In addition, if the NUL does not hold the copyright or the material is not in the public domain, the copyright owners may require the payment of additional fees for the reproduction of such material [12].

The NUL has services for four categories of users with different access rights. The categories are the *students, faculty and staff*, the *alumni*, the *affiliates* and the *visitors*. Most of the born-digital resources are restricted to members (faculty, students and staff) of the *Northwestern Community* (NC) due to software licenses, copyright restrictions and other agreements. The NC has access to the restricted resources within the libraries (on-campus onsite) of the *Northwestern University* (NU), and remotely (off-campus onsite). Some of the born-digital resources, such as the non-networked CD-ROM titles, are only on-campus onsite accessible within particular *library* departments. Sometimes, offsite access may be provided to specified categories of users, such as retired faculty and staff, temporary employees, university affiliated organizations, primary and secondary affiliates (students, faculty and staff from specific affiliated organizations). For the rest of the users (visitors, users and organizations that are not affiliated with the NU), the access to the born-digital resources is provided within the libraries of the NU.

Usually, the digitized collections are freely accessible, but in some cases (e.g. *Video Encyclopedia*

of the 20th Century), the access is restricted to the NC. The digitized collections have various copyright and reproduction terms. Below we present four representative examples of digitized collections with different copyright and reproduction terms.

In the *Africana Posters* collection, the digitized images are copyrighted by the NU. The images are provided to NU students, faculty and staff, and other researchers through the Internet, for research consultation and scholarly purposes only. Further distribution, reproduction and/or any commercial use of the images is not permitted.

In the *North American Indian* collection by Edward S. Curtis, the NUL is not aware of any current U.S. copyright or other restrictions on the use of the original printed publication, claiming only physical ownership of a copy of the publication. NUL claims copyright in the images produced for this digital collection. Each author holds the copyright of his essay. This digital collection is provided for use in research, teaching, and private study. For these purposes, the user may reproduce (print, make photocopies, or download) materials without prior written permission, on the condition that he/she provides proper attribution of the source in all copies. NUL does not provide any type of reproductions for the images that are included in the *North American Indian* online collection. For the convenience of the users, a list of sources has been identified by NUL, for purchasing original plates and reproductions of Curtis's work.

The *On the Fabric of the Human Body* online edition, which is an English translation of book one of Andreas Vesalius' anatomical atlas, the copyright belongs to Daniel Garison, Malcolm Hast and the NU. Permission is granted to access, view and link to this online work for personal and non-profit educational purposes, if links are made directly to the project home page and correct attribution provided from the linking site. The text and images, graphics, and other associated files on this online edition may not be copied, downloaded, presented inline (or online) on any other site or otherwise redistributed or copied without express written permission.

The *League on Nations* collection contains materials published by the League of the Nations and digitized by NU. The materials published by the League of Nations are in public domain and are not subject to copyright restrictions. However, the NUL request users to cite the URL and NUL if they wish to reproduce files from its digitized documents database.

2.5 Policies of the North Carolina State University Libraries (NCSUL)

The *North Carolina State University Libraries* (NCSUL) digitize their own copyrighted material and acquire third-party copyrighted born-digital material through license and/or purchase. However, the copyright of the digital material is complicated and varies from item to item. There are categories of material with diversified copyright status. For example, one category is the public domain material without

copyright limitations. The material created by the faculty, staff, students and employees of the *North Carolina State University* (NCSU), is another category and usually the copyright owners are the creators (faculty, staff, employees etc.) or the university. Another category comprises the material created by independent contractors. Works by independent contractors shall be owned in accordance with the contract under which the work was created. The institution shall insure that there is a written contract for work by an independent contractor specifying institutional ownership. The NCSU provides the necessary information about the copyright ownership in the metadata, but the user is responsible to determine the copyright ownership if the information is not provided. The *Office of Legal Affairs* of the NCSU is responsible to help the users who have fair use and copyright permission questions.

The copyright and the way of acquisition determine the use (access, reproduction etc.) of the material. As a rule, the user may print, reproduce and use the information from the NCSUL website for non-commercial, personal or educational purposes. Most of the born-digital collections are subject to licenses that govern their access and use. In accordance with fair use provisions of the copyright law, library users may search, view, and browse these resources, and may print or download excerpts of reasonable quantity for educational and scholarly purposes. Commercial use and systematic or excessive downloading, copying, reproducing, or distributing of information are prohibited [5]. Except cases of fair use, the use of the material requires the written permission of the copyright holder and/or license fees. The NCSU provides a *Copyright Permission Guide*, sample forms and letters for requesting permission for classroom use, for duplicate copyrighted material, for copy, distribute and display a copyrighted work, for educational transmission of copyrighted works etc.

The access policy varies from item to item, according to the copyright and acquisition terms. Some digital resources are accessible for onsite and offsite users through the Internet. Others, usually licensed resources, are accessible for current NCSU faculty, staff and students, or other library patrons (Centennial Campus University Affiliates and Friends of the Library). The access for NCSU users (current and affiliated) is on and off-campus. The offsite unaffiliated users may have some access to no licensed resources.

2.6 Policies of the Cambridge University Library (CUL)

The *Cambridge University Library* (CUL) is one of the six legal deposit libraries in the *United Kingdom* (UK) and Ireland. The legal deposit legislation applies to the printed material and not to the digital material (especially the online born-digital). Usually, the acquisition of the born-digital material is through license and/or purchase or sometimes on a voluntary basis without certain legal obligations. However, there is the *code of practice*, which is an agreement between the

legal deposit libraries and the publishing trade bodies for the voluntary deposit of the UK non-print publications in microforms and offline electronic media [3]. This *code* applies to publications after 4 January 2000 and contains access arrangements for the deposited publications. The CUL acquires third-party copyrighted born-digital material through license and/or purchase or rarely through voluntary deposition (*code of practice*), and digitizes its own copyrighted material.

The CUL contains born-digital (electronic) and digitized collections with different access policies. The access route (option) defines the access policy of every electronic resource. Some electronic resources are freely accessible (unrestricted) for onsite and offsite users through the Internet (e.g. access route: unrestricted). Others are limited (restricted) only to *students, faculty and staff* (CU community) of the *Cambridge University* (CU). Some of the restricted resources (CU community only) are accessible on and off-campus (e.g. access routes: password, off-campus password, IP/password, IP/CUS) but others, are accessible only on-campus (e.g. access routes: Cambridge domain, public workstation) [2]. Table 1 presents the access policies of the CUL for its electronic resources. The first column shows the access routes. The second shows the authentication routes needed for on-campus access in each access route. The third shows if off-campus access is provided and the authentication routes that are used in each access route.

Table 1: Access policies for the electronic resources of CUL

Access route	On-campus access	Off-campus access
Cambridge domain	IP address recognition	No access
Public workstation	Public workstations in holding library	No access
Password	ATHENS access account	ATHENS personal user account
Off-campus password	ATHENS personal user account	ATHENS personal user account
IP/password	IP address recognition	ATHENS personal user account
IP/CUS	IP address recognition	CUS account
Unrestricted	Unrestricted	Unrestricted

The digitized collections consist of images, which have been digitized by the *Photography Department* of the CUL from the manuscript and rare book collections. The only exception is the *Gutenberg Bible* images, which were digitized from a copy of the work, held in the CUL, by Keio University as part of a project to make all the versions of the *Gutenberg Bible* available together on the Web for comparison purposes.

All the digitized collections are freely accessible for onsite and offsite users through the Internet, except for the *Gutenberg Bible* collection, which is restricted to the Cambridge domain at the request of Keio University. The CUL retains the copyright over the material that has digitized. The user can view, download and copy the digitized images for private study and research and for personal non-commercial purposes only. Any other use (copy, reproduce, publish, store in any medium etc.) requires the written permission of the CU and possible fees. In the case of material still in copyright, permission must be negotiated with the copyright owner, but the CUL reserves the right to charge a facility fee [9].

For example, in the *Royal Commonwealth Society Photograph Gallery*, internationally recognized laws protect the digitized images. The CU obtains the copyright of the images and has taken all the reasonable steps to ensure, that, the use of third-party text and images is done with the full consent of copyright owners and/or in accordance with relevant legislative provisions. The CUL provides the necessary information about the copyright ownership in the metadata. According to the *terms of use and notices* section, the user, without agreement and without license or royalty fees, can use and download a single copy of the text and images (materials) contained in this collection, for private study and research. The usage and copying must be for personal non-commercial purposes only and not for any commercial advantage. Any copyright notice within the materials and the terms of use must appear in any copy of the materials. To use and copy the materials otherwise (copy, reproduce, publish etc.) requires specific written permission from the CU and/or the original copyright owner(s) as identified.

2.7 Policies of the Gresham College Digital Library (GCDL)

The *Gresham College Archives* (GCA) is the most representative collection of the *Gresham College Digital Library* (GCDL) and includes digitized lectures given at the *Gresham College* (GC) from 1987 and digitized special publications. The GCA collection is freely accessible for onsite and offsite users through the Internet. The user can view, print and download the lectures (html or rtf files), without restrictions or fees. The reproduction of any lecture, or any extract from it, is free but must credit the author(s). In addition, a video archive (*Gresham College Video Archive – GCVA*) contains some of the lectures. The videos are copyrighted to GC. The videos are freely accessible for onsite and offsite users through the Internet. However, the user cannot download or reproduce the videos.

2.8 Policies of the Lehigh University Library (LUL)

The *Digital Bridges* (DB) is the most representative digitized collection of the *Lehigh University Library* (LUL). The LUL obtains the copyright of the DB collection. The DB collection is freely accessible for

onsite and offsite users through the Internet. The user can view, download and print the digitized material, page by page in various formats (JPEG, Tiff, and PDF). However, the user may download the copyrighted material for personal use only. The express written permission of the *Lehigh University* (LU) is needed for the copy, reproduction, redistribution, retransmission, publication or commercial exploitation of the downloaded material. User acknowledges that it does not acquire any ownership rights by downloading copyrighted material [8].

Finally, the LU website contains copyrighted material, trademarks, and other proprietary information, including, but not limited to text, software, photos, video, graphics, music and sound, and the entire contents of LU website are copyrighted as a collective work under the U.S. copyright laws. LU owns a copyright in the selection, coordination, arrangement and enhancement of such content, as well as in the content original to it. User may not modify, publish, transmit, participate in the transfer or sale, create derivative works, or in any way exploit, any of the content, in completely or in part. Except as otherwise expressly permitted under copyright law, no copying, reproduction, redistribution, retransmission, publication or commercial exploitation of downloaded material will be permitted without the express written permission of LU and/or the copyright owner. In the event of any permitted copying, redistribution or publication of copyrighted material, no changes in or deletion of author attribution, trademark legend or copyright notice shall be made. User acknowledges that it does not acquire any ownership rights by downloading copyrighted material.

2.9 Policies of the New Zealand Digital Library (NZDL)

The *New Zealand Digital Library* (NZDL) collections are freely accessible for onsite and offsite users through the Internet. The collections can be accessed through searching and browsing interfaces provided by the *Greenstone* digital library software. The copyright of the material may belong to various owners or to nobody (public domain), but the collections are free. The user can view, download and print the digital material without restrictions or fees (e.g. *Computer Science Technical Reports*, *Music Library*, *Humanity Development Library*). The reproduction for private use is free with a credit to the source, but the commercial reproduction is prohibited. Especially for the *Humanity Development Library* (HDL), there is an extra functionality. The HDL is not only freely accessible for onsite and offsite users through the Internet, but is also

available on CD-ROM (for a fee), for distribution in developing countries.

2.10 Policies of the Glasgow Digital Library (GDL)

The *Glasgow Digital Library* (GDL) is a distributed digital library based in Glasgow. GDL content may include teaching and research materials, public information, other resources created by staff in the GDL institutions, collections of digitised materials, subscription services, and freely available Internet resources [6]. The GDL acquires material that is created (e.g. digitized) and maintained by different projects – GDL and other institutional, universities and libraries projects – by organizations, institutions, universities, libraries and individuals. The digitized material of the GDL is freely accessible for onsite and offsite users through the Internet. The copyright of the digitized material belongs to various copyright owners, such as publishers, libraries, individuals etc. depending on the collection. The metadata of every collection refer the copyright and reproductions terms. Usually, the reproduction of the digitized material for non-personal use requires the written permission of the copyright owner.

3 Classification of policies

In this section, we classify the access and reproduction policies of the university digital collections, according to the creation type of the material, the acquisition method and the copyright ownership. We analyze the relation among the factors and the policies and we show (Table 2) the diversified policies that arise. Then, we present the access and reproduction policies used for the digitized and the born-digital material separately. The first column shows if the material is digitized or born-digital. The second shows the acquisition method of the material. Library means that the library has created its own digitized or born-digital material. The third presents the copyright owner. Library means that the copyright of the material is owned by the organization that the library belongs, and is administrated by the library. The fourth shows the off-campus access policy for onsite users. *The on-campus access for onsite users is always free*. The fifth shows the offsite access policy. The sixth shows if reproduction for private use is permitted. The seventh shows if commercial reproduction is permitted. The eighth presents if written permission is needed for the reproduction and who gives it. The ninth presents if fee is needed for the reproduction and to who must be given. The last column contains names of specific collections or libraries for all their collections that correspond to the policies.

Table 2: Factors of access and reproduction policies for digital collections

Creation type of the material	Acquisition method of the material	Copyright owner	Off-campus onsite access	Offsite access	Reproduction for private use	Commercial reproduction	Written permission for reproduction	Fee for reproduction	Collection or Library Examples
Digitized	Library	Library	Yes	Yes	Yes	No	No	No	ADL
Digitized	Library	Library, Individuals, Organizations	No	No	Yes	Yes	Owners	Owners	Felix. E. Grant
Born-digital	Library	Library	Yes	Some	Fair use	Yes	Library	Library	DCDL
	License, Purchase	Organizations	Some	No	Fair use	Yes	Owners	Owners	
Digitized, Born-digital	Library	Library	Yes	Mostly no	Yes	Yes	Library	Library	HUL
	License, Purchase	Library, Organizations	Some	Mostly no	Yes	Yes	Library	Library, Owners	
Digitized	Library, Third-party	Library+	Yes	Mostly yes	Case by case	Case by case	Case by case	Case by case	NUL, NCSUL
Born-digital	License, Purchase	Library, Organizations	Some	No	Case by case	Case by case	Case by case	Case by case	
Digitized	Library	Vary	Yes	Some	Fair use	No	No	No	NCSUL
Born-digital	License, Purchase								
Digitized	Library, Third-party	Library+	Yes	Mostly yes	Yes	Yes	Library, Owners	Library, Owners	CUL
Born-digital	License, Purchase, Voluntary deposit	Organizations	Vary	Mostly no	Yes	No	No	No	
Digitized	Library	Individuals	Yes	Yes	Yes	No	No	No	GCA
Digitized	Library	Library	Yes	Yes	Yes	No	No	No	GCVA
Digitized	Library	Library	Yes	Yes	Yes	Yes	Library	Library	DB
Digitized	Third-party	Library, Individuals, Organizations, Public domain	Yes	Yes	Yes	No	No	No	NZDL
Digitized, Born-digital	Library, Third-party	Library, Individuals, Organizations	Yes	Yes	Yes	Yes	Owners mostly	Owners	GDL

+ The library is usually the owner of the digitized material, but sometimes there are other owners or the material is in a public domain

3.1 Factors and policies for the digitized material

The off-campus onsite and the offsite access are free when the library digitizes its own material and has the copyright. The reproduction for private use is free, with the sole requirement to *credit* (mention) the source. The commercial reproduction is not authorized or rarely, it is allowed with written permission from and fees given to the library.

The off-campus onsite access is free, or sometimes, it is not provided when the library digitizes its own material but the library and/or other owners have the copyright. The offsite access is free, or it is merely

provided or it is not provided. The reproduction for private use is free with a credit to the source or rarely under fair use provisions. The commercial reproduction is not authorized or it is allowed with written permission from and fees given to the owners.

The off-campus onsite access is free when the library digitizes its own and third party material, and mostly the library has the copyright. The offsite access is mostly free. The reproduction for private use is free with a credit to the source or it is on case-by-case basis. The commercial reproduction is on case-by-case basis or with written permission (mostly from the library or

sometimes from other owners) and fees given mostly to the library or sometimes to other owners.

The off-campus onsite access is provided or it is merely provided when the library digitizes its own material or acquires digitized material through license and purchase, and mostly the library has the copyright. The offsite access is mostly not provided. The reproduction for private use is free with a credit to the source. The commercial reproduction is allowed with written permission from the library and fees given mostly to the library or sometimes to other owners.

The off-campus onsite and the offsite access are free when the library digitizes its own and/or third party material, and the library and other owners and/or *nobody* (public domain) have the copyright. The reproduction for private use is free with a credit to the source. The commercial reproduction is allowed with written permission from the owners mostly and fees given to the owners or it is not authorized.

3.2 Factors and policies for the born-digital material

The off-campus onsite access is free when the library creates its own born-digital material and has the copyright. The offsite access is merely, or not provided. The reproduction for private use is free with a credit to the source or under fair use provisions. The commercial reproduction is allowed with written permission from and fees given to the library.

The off-campus onsite access is merely provided or it varies according to the collection when the library acquires born-digital material through license and purchase and/or voluntary deposit, and other owners have the copyright. The offsite access is mostly not provided. The reproduction for private use is free with a credit to the source or under fair use provisions. The commercial reproduction is allowed with written permission from and fees given to the owners or it is not authorized.

The off-campus onsite access is merely provided or rarely, it is free when the library acquires born-digital material through license and purchase, and the copyright belongs to the library and other owners or varies from item to item. The offsite access is not provided or rarely, it is merely provided. The reproduction for private use is free with a credit to the source or under fair use provisions or it is on case-by-case basis. The commercial reproduction is not authorized or it is allowed with written permission from the library and fees given mostly to the library or sometimes to other owners, or it is on case-by-case basis.

The off-campus onsite and the offsite access are free when the library creates its own born-digital material or obtains third-party material, and the library and other owners have the copyright. The reproduction for private use is free with a credit to the source. The commercial reproduction is allowed with written permission from the owners mostly and fees given to the owners.

3.3 Quantitative table analysis and remarks

From the analysis above, we see that specific factors lead to specific policies. We derive some quantitative remarks about which factors lead to specific policies. The remarks of policies are clustered usually under the copyright factor.

3.3.1 Acquisition and copyright

- The libraries prefer (approximately 92%) to digitize their own material in which they have the copyright
- The libraries also often digitize free third-party (approximately 33%) or public domain (approximately 20%) material
- The born-digital material is acquired mostly (approximately 63%) through license and/or purchase from copyright owners (organizations, individuals etc.)
- Sometimes (approximately 25%) the libraries create their own born-digital material, in which usually they have the copyright
- The born-digital material is rarely (approximately 12%) voluntarily deposited
- When the acquisition of the born-digital material is mostly through license and/or purchase, then the copyright belongs to the library and other owners (approximately 60%) or to other owners (approximately 40%)

3.3.2 Copyright, off-campus onsite and offsite access

- The off-campus onsite access is provided (approximately 69%) or it is merely provided (approximately 19%) otherwise it is not provided (approximately 6%) or it varies according to the collection (approximately 6%)
- The offsite access is provided (approximately 50%), or it is merely provided (approximately 12%) or it is not provided (approximately 38%)
- When the offsite access is merely, or not provided there are licensing restrictions and/or the copyright belongs to other owners. Sometimes (approximately 13%), even if the library is the copyright owner, the offsite access is merely or not provided because the library provides only onsite access
- The off-campus and the offsite access are sometimes (approximately 44%) different. In such cases, when the off-campus onsite access is merely provided, the offsite access is not provided due to the licensing and copyright restrictions. In addition, when the off-campus onsite access is provided, the offsite access is merely provided or it is not provided because either the library provides only onsite access or the copyright belongs to other owners. Finally, when the off-campus onsite access varies from item to item, the offsite access is not provided

3.3.3 Copyright and reproduction for private use

- The reproduction for private use is usually free with a credit to the source (approximately 69%) or under fair use provisions (approximately 18%) or it is on case-by-case basis (approximately 13%)
- When the library has the copyright of the material, then the reproduction for private use is free with a credit to the source (approximately 80%) or under fair use provisions (approximately 20%)
- When mostly the library, or the library and other owners have the copyright, then the reproduction for private use is free with a credit to the source (approximately 63%) or it is on case-by-case basis (approximately 25%) or it is under fair use provisions (approximately 12%)
- When other owners have the copyright, then the reproduction for private use is free with a credit to the source (approximately 67%) or under fair use provisions (approximately 33%)

3.3.4 Copyright and commercial reproduction

- The commercial reproduction is allowed (approximately 50%) with written permission from and fees given to the owner (library and/or other owners) or it is prohibited (approximately 37%) or it is on case-by-case basis (approximately 13%)
- When the commercial reproduction needs written permission from the owner, then fees are also given to the owner
- The commercial reproduction is allowed with written permission from and fees given to the library in approximately 60% (when the library has the copyright) and in approximately 50% with written permission from and fees given to the owners (when the library and individuals and organizations have the copyright)
- When organizations or individuals have the copyright, then the commercial reproduction is not authorized (approximately 67%) or it is allowed (approximately 33%) with written permission from and fees given to the owners
- When organizations have the copyright, then the commercial reproduction is allowed (approximately 50%) with written permission from and fees given to the owners or it is not authorized (approximately 50%)
- When individuals have the copyright, then the commercial reproduction is usually not authorized

- When mostly the library has the copyright, then the commercial reproduction is allowed (approximately 67%) with written permission (mostly from the library and rarely from the owners) and fees given to the library and the owners or it is on case-by-case basis (approximately 33%)
- When the library and organizations have the copyright, then the commercial reproduction is usually on case-by-case basis.

4. Rules and proposals for policies

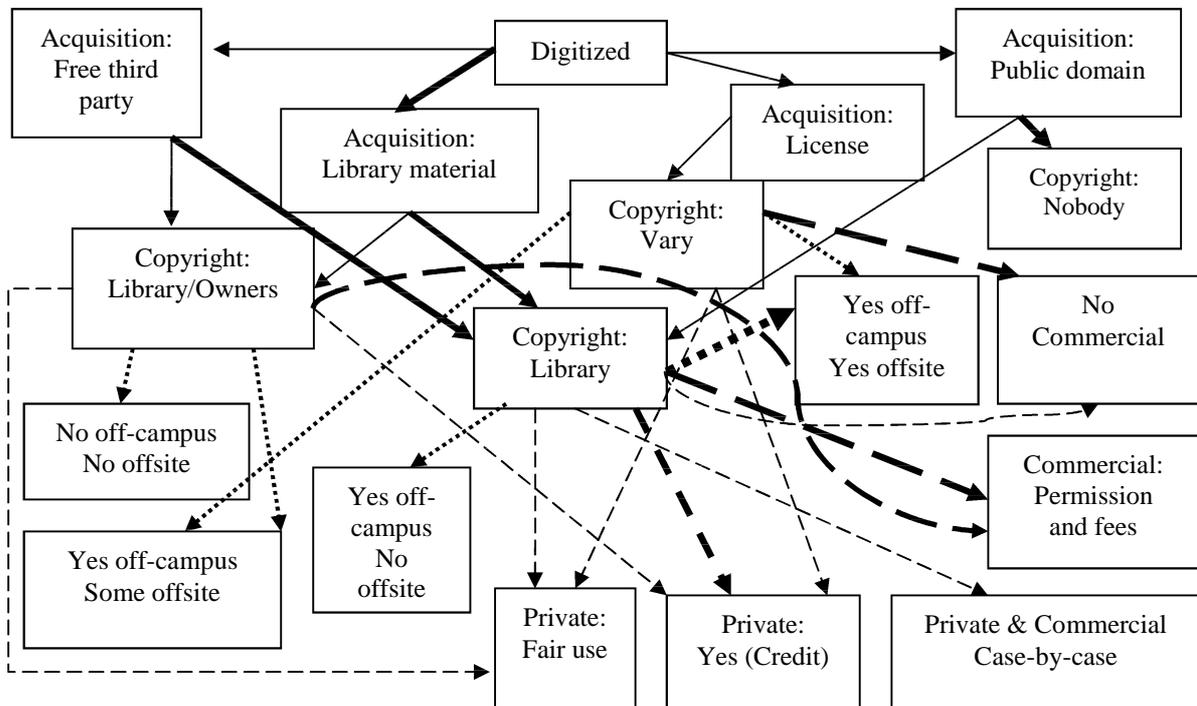
We derive some generalized rules about which factors lead to specific policies. The common practice shows that the on-campus onsite access is always free independently of the copyright ownership and the creation type (digitized, born-digital) of the material. In addition, when there are copyright uncertainties and independently of the creation type of the material, a common solution is the reproduction (private and commercial) to be on case-by-case basis.

We present the policy rules for the digitized (Figure 1) and the digital (Figure 2) material separately. The thick arrows show the most common rule. The dots indicate the access policies and the dashes the private and commercial reproduction policies

Most libraries have concluded to digitize their own material in which they have the copyright. Common approaches are that the libraries have the copyright for the digitized version of the free third-party and the public domain material. Reasonable choice for the libraries would be to provide their own copyrighted digitized material with free *onsite* (on and off-campus) and offsite access, to permit the private reproduction with a credit to the source and to require written permission and fees for the commercial reproduction.

When the copyright varies (libraries and other owners, other owners only etc.) the common approach is the provision of free onsite and no offsite access. The private and commercial reproduction should be provided to onsite users only with a credit to the source and with written permission from and fees given to the owner (library and/or other owners) respectively. Another frequently used practice is the prohibition of the commercial reproduction (see fig. 1).

Figure 1: Policy rules for the digitized material (dots: access policies, dashes: reproduction policies)

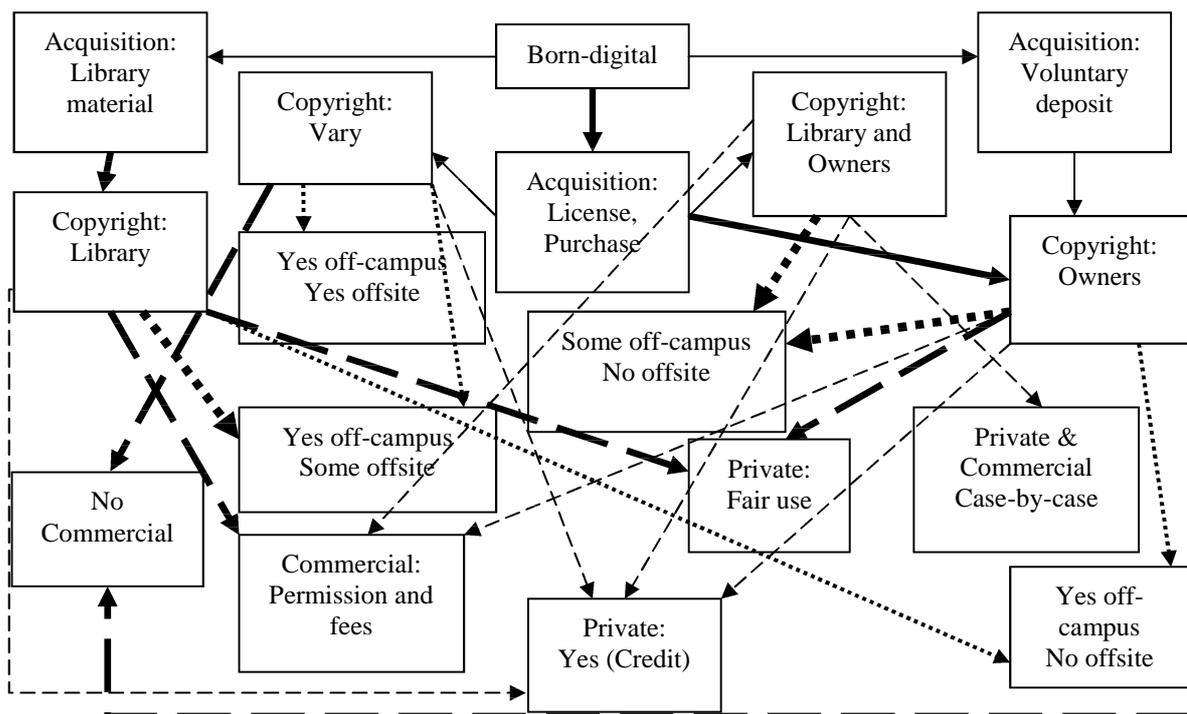


Most libraries acquire the born-digital material through license and/or purchase with organizations (e.g. publishers) and individuals. Most libraries have concluded to acquire licensed born-digital material if they will be responsible for the use of this material. The common practice shows that other owners usually copyright the licensed material. Another reasonable approach is that the libraries and other owners have the copyright of the licensed material. A reasonable choice would be for the libraries to provide their own copyrighted born-digital material with free onsite and

some offsite access, to permit the private reproduction under fair use provisions and to require written permission and fees for the commercial reproduction.

When there are licensing restrictions and the copyright varies (libraries and other owners, other owners only etc.), the common approach is the provision of free on-campus, some off-campus and no offsite access. The common practice shows that the private reproduction is either permitted with a credit to the source or under fair use provisions, and the commercial reproduction is not authorized (see fig. 2).

Figure 2: Policy rules for the born-digital material (dots: access policies, dashes: reproduction policies)



5. Comparison between conventional and digital policies

We map the conventional access and reproduction policies to digital and we compare them, showing mostly their differences. The conventional access inside the library premises for the printed material corresponds to the Internet access inside the library premises for the digital material. However, the Internet access (digital material) can be concurrent and simultaneous through the workstations inside the library premises, unlike the conventional access because of the restricted copies (printed material). The conventional library loan for the on-campus onsite users corresponds to the on-campus onsite Internet access. Unlike the conventional loan for which the user must visit the library, the on-campus onsite Internet access is remote (e.g. campus room, workstations outside of the library).

The conventional ILL corresponds to the off-campus onsite and the offsite Internet access. However, the ILL is complicated, time-consuming, restricted to users of specific affiliated libraries and needs the intermediation of the librarian. In contrast, the off-campus onsite and the offsite Internet access is simple, rapid, and can be remote independently of the user's affiliation or location and without intermediation. In general, the libraries can implement more liberal digital policies than the conventional, because of the relaxing of the physical copy restriction or the protection problem. However, copyright limitations may restrict the policies.

The digital reproduction (with a credit to the source or under fair use provisions) corresponds to the conventional reproduction (photocopying) inside the library premises under fair use provisions and to the conventional document delivery procedure. However, the librarian can restrict the extent of the conventional photocopying or document delivery procedure and enforce limitations to local users. In contrast, the limitations of the digital reproduction cannot be enforced and it is the user responsibility to respect the fair use doctrine. However, in cases where there are licensing and copyright limitations, the library may forbid not only the reproduction but also the remote access.

6. Conclusions and future work

We examine the relation among the factors and the access and reproduction policies of the digital collections of leading university digital libraries. We analyze and classify the policies, and we conclude into some generalized rules about which factors lead to specific policies. For example, when the library has the copyright of the material, the private reproduction is free with a credit to the source in approximately 80% or under fair use provisions in approximately 20%. In addition, the copyright ownership defines the commercial reproduction policy, which when allowed, needs written permission from and fees given to the

owner. Finally, we extract the common practice on access and reproduction policies and we map and compare the conventional to digital policies.

For future research, it would be interesting to link the motivations of the libraries, when they decide to provide digital content, with the policies. The motivations refer to the thoughts and the reasons that lead the decision makers of the libraries to provide digital content. For example, the library desires to provide digital content in order to be widely and permanently accessible or easily preserved or to accommodate the students with concurrent multiple digital copies or to use the new technologies, or to get exposure and fame by digitizing and providing its special collections etc. Finally, we can compare the usage of the conventional versus digital material and correlate the usage with the policies.

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