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What is This?

Policy route map for academic libraries' digital content

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Abstract

This paper presents a policy decision tree for digital information management in academic libraries. The decision tree is a policy guide, which offers alternative access and reproduction policy solutions according to the prevailing circumstances (for example acquisition method, copyright ownership). It refers to the digital information life cycle, focusing mostly on its creation (digitized or born-digital), acquisition, copyright and availability. The resulting decision tree is based on a policy model, which was initially divided into two branches – one for digitized and one for born-digital information. The decision tree simplifies and unifies commonly adopted rules which were identified through a questionnaire survey on the access and reproduction policies of 67 digital collections in 34 multidisciplinary libraries (national, academic, public, special, etc.) from 13 countries. The results of the decision tree are used to propose alternative policies.

1. Introduction

The development and usage of digital libraries (DL) is usually limited by the restrictions and policies that govern their content. Thus, common approaches and guidance into policy decisions are important for digital library development. Librarians do need further investigation into current DL access and reproduction policy trends, as seen from the relevant literature. Indeed, there are numerous related surveys, technical and project activity reports (e.g. Austin et al., 2008; Ayre and Muir, 2004b; Cedars Project, 2002a, 2002b; Krishnaswamy and Gopalakrishnan, 2008), project results,[1] conference and journal papers (e.g. Arms, 1998; Ayre and Muir, 2004a; Meyyappan, 2000; Perry and Callan, 2006; Seville and Weinberger, 2000a, 2000b; Varmus, 2008; Walters, 2003; Witten, 2003), guides (e.g. Pappalardo et al., 2007, 2008) and books (e.g. Borgman, 2007), among others. However, none of these specifically address digital information management in academic libraries in terms of policies[2] and influential factors.

For example, Meyyappan (2000), who described the status of 20 digital libraries while also mentioning their access policies, had previously undertaken similar work.

In addition, Walters (2003) presented an introduction to the acquisition of video media (DVD and VHS) in academic libraries, with an emphasis on the procedures most appropriate for undergraduate colleges. Arms (1998) presented a conceptual model for access management, according to specific attributes and user roles. Finally, Burnham's article (2004), which helps librarians to determine the copyright status of works in library collections, considered only some factors and library practices. In addition, Burnham (2004) focused on legal strategies for use in various scenarios and not on library guidelines, which this paper proposes. In conclusion, no previous studies have focused exclusively on access and reproduction policies in relation to influential factors, such as the acquisition method, copyright ownership, content type, etc., nor

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presented a model for digital information management in academic libraries, as this paper is proposing in the form of a policy decision tree.

Additionally, this paper presents the most significant findings from a questionnaire survey of 67 digital collections of 34 libraries, belonging to multiple disciplines (national, academic, public, special, etc.) worldwide. The participating libraries are from 13 countries ranging from North and South America, to Asia and Africa, and from Australia and New Zealand to Europe (Central, West and East). More details about the sampling and its selection methodology are given in Section 2.

The policy analysis is based on the collection level (in 67 collections from 34 libraries, 49 collections are from academic libraries – 73.1%), since policies may diversify according to hierarchical level. The statistical analysis of policy was conducted in relation to specific factors, such as the acquisition method,[3] copyright ownership,[4] library type (national, academic, public, special, etc.), content type (book, audio, video, etc.) and content creation type (digitized or born-digital). Given that the survey covers so many different copyright jurisdictions, it does not go in depth into the different constraints of different countries. However, since the libraries that responded to the survey showed similarities in the way they deal with copyright, common policies for digital information management can be derived that may be useful for academic libraries.

The policy analysis was conducted with regard to the digital collections of libraries and not the library entities. The collection was the statistical unit on which the analysis was based. The library type was also an important consideration (factor) as it relates to the library content dissemination policy (for example access, reproduction).

The participating libraries included collections whose development was influenced by different factors, such as those mentioned previously, and by various policies (for example access and reproduction). This paper examines, analyses and extracts findings[5] – derived from the statistical analysis data (Section 4) of the questionnaires – for DL access and reproduction policies, focusing mostly on academic libraries. This is because by far the most responses came from academic libraries (25 libraries, 73.5% of the respondents; 49 out of 67 digital collections, or 73.1%), which reflects the awareness of, and interest in, digital content access and reproduction policies in this sector. The academic libraries' responses were also the most informative in the sense of the number of collections, policy and content diversity.

This paper extracts rules and policy alternatives that constitute the basis for the proposal of a flexible and extensible policy decision tree (Section 5) which contains alternative access and reproduction policy practices for the management of digital information in academic libraries. The decision tree is based on a model for digital information management policies, which is an evolved and extended form of the access and reproduction policy model for university digital collections (Koulouris and Kapidakis, 2005c). The decision tree is divided into two branches, for digitized (Section 5.1) and born-digital (Section 5.2) information. The resulting possible applications of the decision tree are presented in the conclusions (Section 6).

2. Sampling: Selection methodology

Various methodologies for sample selection were used. A database of academic digital collections was created. The database was the result of an extended and intensive search of the majority of the websites of academic libraries worldwide (e.g. Koulouris and Kapidakis, 2005a). Additionally, updated data from previous surveys (e.g. Koulouris and Kapidakis, 2005b, 2007) were used. Finally, 54 libraries were selected for the survey. Their selection was based on specific criteria that are analysed below.

A short questionnaire[6] on the digital content and access policies of libraries was compiled and sent to the 54 libraries in order to identify relevant persons with the knowledge necessary to answer the questions. Additionally, the feedback from this process helped in avoiding misunderstandings and mistakes in the full and final version of the questionnaire. At the same time, the pilot questionnaire was also sent to international mailing lists,[7] in which the exact number of the recipients could not be determined. While this pilot questionnaire was designed to detect libraries that are experienced in DL implementation and especially in policies, those identified may not have been included among those selected from the database. The questionnaire was sent to the 54 libraries that were subsequently selected. No feedback was received from the international mailing lists.

The selection of the 54 libraries was based on their active role in the DL field, their status – the largest national (e.g. Library of Congress, British Library) and academic libraries were included – and especially their interest in DL access and reproduction policies, as well as diversity in factors and policies concerning their digital information. Additionally, their geographical diversity – the 54 libraries were from 13 countries – was taken into account. This diversity has an impact on the differing approaches regarding DL policy. For example, the National Library of Germany placed its emphasis on intellectual property rights – traditionally a key issue for pioneers. Additionally, the National Library of Chile expressed the Latin philosophy of reproduction policies. Finally, the different sectors (e.g. national, academic, public, private, etc.) to which the libraries belonged also formed a criterion.

Thereafter, the full questionnaire on access and reproduction policies for the digital content of libraries – on which this survey was based – was composed and sent to the same five Greek libraries that had received and responded to the shorter form. This pilot survey aimed at

investigating whether or not the full questionnaire was convenient, intelligible and appropriate for the staff that would be responsible for answering it. The full survey questionnaire[8] consisted of six pages, five sections and 27 questions.

Finally, the full questionnaire was circulated (by email) to the 54 selected libraries, including the respondents to the shorter form. A covering letter outlining the issues being addressed in the survey accompanied each questionnaire. The full questionnaire was also posted on the website of the Laboratory on Digital Libraries and Electronic Publishing, based at the Archive and Library Sciences Department, Ionian University, Corfu, Greece.

While an initial deadline had been set, the libraries that had not responded by that day were contacted by email and they were given an extended deadline. Of the 54 questionnaires sent to libraries, 34 were completed and returned (63%). This satisfactory response rate reflected the great interest of the selected libraries in DL policies. However, another factor that contributed to this satisfactory response rate was the persistent telephone calls, official letters and emails that the authors sent to the libraries.

The 34 multidisciplinary (national, academic, public, special, etc.) participating libraries were from 13 countries ranging from North and South America, to Asia and Africa, and from Australia and New Zealand to Europe (Central, West and East). Ultimately, 67 collections in the 34 participating libraries were analysed.

3. Survey difficulties

The survey was very difficult to conduct. Multiple problems were encountered, for example the questionnaire composition and dissemination, the selection of the sample. Initially, the factors that affect policy had to be identified, in order to extract significant and reliable results. In specifying the factors (mentioned in the introduction), previous surveys (e.g. Arms, 1998) were examined and supplemented with intensive research. Additionally, the questionnaire formulation was also a difficult procedure, because it had to be user friendly and easy to complete. A limited pilot survey was necessary before officially sending the questionnaire, in order to receive feedback, to refine it, to resend it, etc.

The selection of the sample was the most difficult and time-consuming procedure. The selection criteria had to be determined – for example, the geographic diversification, the library type, the discipline and size, and digital library implementation, among others. Then, all the relevant libraries, including the largest national and academic libraries of each country (without exception) had to be identified. Through this procedure, a database of target libraries was established, from which the sample was selected. Finding and contacting the appropriate employee of each library,

and then persuading him/her to participate in the survey and complete the questionnaire, was also very difficult.

The data analysis was carried out in SPSS (Statistical Package for Social Science), v. 12. The frequency tables, the crosstabs tables and the chi-square tests (x^2),[9] were also derived from SPSS, but the diagrams and the table processing were carried out in MS Excel.

The 'other type' of digitized content occurred relatively frequently (28.4%). This is because, in the initial plan of the questionnaire, a separate category for photographs and manuscripts was not foreseen. The digital content category 'other type'[10] includes such content, which occurred in more collections than initially estimated. The problem was encountered during the data entry process and it could not be solved ex post facto. Finally, photographs were incorporated into the other type content because, as the data processing revealed, the other content type could conveniently accommodate all remaining types that occurred in this category.

4. Findings

The most important findings that emerged from the questionnaire survey and the statistical analysis of the data at collection level are presented. The findings and their documentation are separated into categories for: (1) access and reproduction policy factors, (2) access policy, (3) private reproduction policy and (4) commercial reproduction policy. There is a distinction in access policies and the application of copyright law between digitized and born-digital content. This is expected since the digitized content has restrictions that derive from its former conventional status – restrictions which are imposed, much of the time, by commercial publishers during the publication process. Finally, the survey results, the survey itself and the quantitative analysis of the responses are available in the form of a report[11] at the Laboratory of Digital Libraries and Electronic Publishing,[12] at the Archive and Library Sciences Department of the Ionian University.

4.1 Access and reproduction policy factors

- The factors that mainly affect access and reproduction policies are acquisition method, copyright ownership and the creation type of the content.
- Factors that affect the previous policies to a lesser degree are the type of the content and the library.
- The creation type of the content (digitized or born-digital) is independent of the library type (national, academic or other).[13]
- The library type affects access policy routines. For example, academic libraries divide onsite access into on- and off-campus. On the other hand, national, public and other libraries distinguish the access

between onsite and offsite only, without providing off-campus onsite access.

- The commercial reproduction policy and a possible fee payment depend on the library type.
- The library type does not affect the acquisition method of digital content, copyright allocation,[14] access policy selection,[15] or the clustering of users (analysed in Section 4.2.3) according to access rights and written permission for its commercial reproduction.
- When the library uses its own content (library content) for creating its digital collections, the copyright ownership belongs to – and is administered by – the library or by another owner (content creator).
- Other owners have the copyright ownership of free third-party content, the purchased content and the licensed born-digital content.
- When the digital content is part of the public domain, the copyright does not belong to anyone, because it has expired, or nobody claims such a right. Very often, in the case of digitized public domain content, the copyright belongs to the library. This is normal since the library digitizes the content and, reasonably, claims the copyright for the digitized version.

4.2 Access

The remarks regarding off-campus onsite and offsite access, and the clustering of users were analysed. On-campus onsite access is excluded, because it is usually provided freely (full access) to all users – except in a few cases where additional clustering is involved (Section 4.2.3).

- The acquisition method of digital content, especially in the case of the born-digital content, diversifies access.
- Access is diversified from a user's perspective when other owners have copyright.

4.2.1 Off-campus onsite access (remote access for onsite users)

- The libraries provide full off-campus onsite access for their own digital content, in which they hold or administer the copyright ownership (copyright).
- For licensed content (mostly for born-digital) the libraries negotiate with the providers and they ensure remote access for their off-campus onsite users.
- When other owners have the copyright of the digital content, they restrict the full off-campus onsite access and they provide it in a restricted sense.

4.2.2 Offsite access (remote access for offsite users)

- The libraries provide full offsite access for library owned, free third-party, public domain and licensed digitized content. On the other hand, for born-digital

content that has been acquired through the above methods, usually libraries do not provide offsite access.

- In the case of licensed content, limited offsite access is widely provided.
- For the purchased digital content, libraries do not provide full offsite access. However, restricted access may be provided.
- The issue of copyright determines the (remote) offsite terms of access (e.g. full, limited, or not provided), especially when it belongs to another owner.

4.2.3 Access rights and the clustering of users.
In this survey, the users have been clustered according to their access rights. The clustering of users may have the following values: no, meaning that onsite and offsite users have the same access rights; common, meaning that onsite and offsite and/or on- and off-campus onsite users have different access rights; and additional, meaning that on-campus onsite users have different access rights, even inside the library premises.

- The clustering depends on the acquisition method of the digital content.
- For library owned, free third-party and public domain digitized content, clustering is not applied.
- When the content is licensed and digitized, either no or common clustering is applied.
- For purchased digital content, common clustering should be used.
- Common clustering applies in the case of born-digital content, independent of the acquisition method used. For purchased content, common and additional clustering is preferable.
- When the content consists of digitized and born-digital items, additional clustering is applied. In the case of free third-party content, common clustering should be used.
- When other owners hold the copyright, then common (or, in rare cases, additional) clustering is required.
- The library type does not affect clustering.
- Clustering is related to access policy.
- No off-campus onsite access requires common clustering. Limited off-campus onsite access calls for additional clustering and in the case of full off-campus onsite access, no clustering should be used.
- Common clustering is applied when there is no or limited offsite access.
- Full offsite access requires no clustering.
- Additional clustering is used in the case of limited on-campus onsite access.
- Additional clustering requires additional (Section 4.4.4) restrictions for reproduction.

4.3 Private reproduction

- Private reproduction is usually free and is independent of library type, the acquisition method and the copyright ownership.
- Libraries prefer to provide their content with free private reproduction, either with an acknowledgement of the source (reference), or by applying fair use regulation, but usually without enforcing written permission and/or a fee, or any other additional restriction.

4.4 Commercial reproduction

Commercial reproduction may have certain requirements, such as written permission and/or a fee (Sections 4.4.1, 4.4.2, 4.4.3), and probably additional restrictions (Section 4.4.4).

- Commercial reproduction is usually not authorized. Only private libraries may permit it, usually with written permission and/or a fee payment.
- Purchased content may be commercially reproduced only if it is digitized.

4.4.1 Written permission

- The library type does not affect written permission for commercial reproduction.
- Sometimes, written permission depends on the content type.
- When free third-party and public domain digitized content is involved, the library gives written permission for its commercial reproduction.
- The owner gives written permission for commercial reproduction of free third-party (digitized and born-digital or only born-digital) and licensed content (digitized or born-digital).
- The copyright owner usually gives their written permission for commercial reproduction. The library gives permission for commercial reproduction on condition that the copyright owner has granted such a right to the library.

4.4.2 Fee payment

- The payment of a commercial reproduction fee depends on library type and is mostly required from the other library types.
- Sometimes content type affects the commercial reproduction fee.
- In collections containing digitized dissertations and audio (digitized and born-digital), the commercial reproduction fee is paid to the library.
- In digitized and born-digital video collections, a fee is not required.

- In the case of purchased digital content, the fee is paid to the owner.
- When the library digitizes conventional public domain content, it charges a reproduction fee only when it is for commercial use.
- The entity that holds the copyright takes the fee for its commercial reproduction.

4.4.3 Written permission and fee

- The need for written permission, and any associated fee, for commercial reproduction is determined by the copyright owner. Usually the owner gives written permission and takes a fee.
- Written permission is not associated with fee payment.

4.4.4 Additional restrictions. According to the answers to the questionnaire survey, additional restrictions concerning commercial reproduction can be considered as those implied by national copyright law(s), by the use of watermark, by authors, by licensing and by universities.

- The library and content types do not correlate with additional restrictions on commercial reproduction.
- Usually in the case of commercial reproduction, when digitized content is purchased and the copyright is held by other owners, then additional restrictions are implied.

5. Proposed policy decision tree for academic digital information

The rules and their alternatives, derived from the above findings, result in a flexible (access and reproduction) policy decision tree, which is the core proposal of the paper. The decision tree is a policy route map that offers alternative, flexible and effective access and reproduction policy solutions, according to the factors that apply in each case. The decision tree could be a useful tool in helping library managers and decision makers form appropriate policies for managing the digital information assets of academic libraries. In essence, this tool aims to establish a satisfactory balance between the needs of end-users and the interests of copyright owners (content creators). Additionally, it may have implications in the building of other tools for making decisions regarding policies and for managing digital information.

While the decision tree covers the entire digital information life cycle, it focuses on its creation (digitized, born-digital), acquisition and availability (storage, access, reproduction, etc.), without omitting its maintenance. This tool is based on a model for digital information management policies, which itself is an adaptation and extension

of the access and reproduction policy model for university digital collections (Koulouris and Kapidakis, 2005c).

The decision tree is divided into separate branches for digitized (Table 1) and the born-digital (Table 2) information. On the one hand, the decision tree contains practices that are already commonly used by the majority of academic libraries. However, due to their complexity, the decision tree simplifies, unifies and coverts them into rules that are efficient and easy to adopt or use. For example, academic libraries may provide free full access on-campus onsite, independent of copyright ownership, acquisition method and content creation type. On the other hand, the decision tree offers new, flexible, extensible and innovative policy alternatives (routes, paths).

The decision tree is organised into six layers. The first layer contains the content. The second shows the factor of creation type, which divides the decision tree into two (digitized and born-digital branches). This is followed by the factors of acquisition method (third layer) and copyright ownership (fourth layer). The fifth and sixth layers refer to access and reproduction policies respectively. Access is classified according to on-campus and off-campus (onsite and offsite), and reproduction is classified according to whether it is private or commercial.

5.1 Policy decision tree for the digitized information of academic libraries

Representative examples of alternative proposed policy routes were analysed.

Academic libraries may follow four available alternative options for their digitized content acquisition: library, third-party, public domain and licensed content. When the library digitizes the content available in its collections (library content), usually it either holds or administers the copyright. Access is full and free for all users. Private and commercial reproduction should be permitted to all users with an acknowledgement of the source (e.g. content creator, provider) and with written permission from, and fees paid to, the library respectively (permission and fee value).

When the library digitizes third-party content, either the library administers the copyright, or other owners hold it, or the library and other owners mutually administer (share) it (taking the value library/other owners), or else it may vary from item to item (taking the value varies with item). When the library administers the copyright, two access alternatives are proposed: full for all users, or full for onsite only (on and off-campus) with no (forbidden) access for offsite. Private reproduction should be permitted with an acknowledgement of the source or by applying the fair use doctrine. Commercial reproduction has two alternatives. Either it is provided with written permission from, and fees paid to, the library, or it is examined on a case-by-case basis.

When other owners hold copyright of the third-party digitized content, access should be provided to onsite users only and not to offsite (value: full on-campus / full off-campus). In this case, only onsite users have content reproduction privilege, with an acknowledgement of the source for private reproduction, and with written permission, given by the owner, for commercial reproduction.

Variant and alternative access and reproduction policy routes are proposed when the copyright of the third-party digitized content is shared among library and other owners (value: library/other owners) or varies from item to item. For instance, in the case of copyright sharing, the access is full for onsite users but is either limited (some) or not provided at all for offsite users (value: full on-campus/full off-campus). Private reproduction is provided with an acknowledgement of the source or by applying the fair use doctrine, and commercial reproduction is provided with written permission from, and fees paid to, the copyright owner.

When the copyright of the third-party digitized content varies from item to item (varies with item), access is full for onsite users only but is not provided to offsite users. Private reproduction is provided to onsite users only with an acknowledgement of the source. Commercial reproduction has two alternatives. Either it is provided with written permission from, and fees paid to, the copyright owner, or it is not authorized.

For digitized content that is licensed or in the public domain there are other alternative policy proposals. When the library digitizes public domain content, it holds the copyright (for the digitized version of the content). Two access alternatives are proposed: full for all users or full for onsite users only (on and off-campus). Private reproduction is provided with an acknowledgement of the source or by applying the fair use doctrine. Commercial reproduction is provided either with written permission from, and fees paid to, the library, or it is examined on a case-by-case basis.

When the library digitizes licensed content, either other owners hold the copyright, or the library and other owners mutually administer it, or else it may vary from item to item. When other owners hold the copyright, access should be provided to onsite users only and not to offsite users. In this case, only onsite users have content reproduction privileges, with an acknowledgement of the source for private reproduction, and with written permission from, and fees paid to, the copyright owner for commercial reproduction.

In the case of copyright sharing, access is full for onsite users while it is not provided for offsite users. Private reproduction is provided with an acknowledgement of the source while commercial reproduction is provided either with written permission from, and fees paid to, the copyright owner, or it is not authorized.

When the copyright of the licensed digitized content varies from item to item, access is either full for onsite users only or full for all users. Private reproduction is provided to onsite users only with an acknowledgement of the

Table 1. Policy decision tree for the digitized information of academic libraries.

Content creation type	Acquisition method	Copyright ownership	Access	Reproduction	Conditions
Digitized content	Library content	Library	Full on-campus/full off-campus/full offsite	Private	Credit to the source
				Commercial	Permission and fee
	Third party	Library	Full on-campus/full off-campus/full offsite	Private	Credit to the source Fair use
				Commercial	Permission and fee Case-by-case
			Full on-campus/full off-campus	Private	Credit to the source Fair use
				Commercial	Permission and fee Case-by-case
		Other owners	Full on-campus/full off-campus	Private	Credit to the source
				Commercial	Permission and fee
		Library/other owners	Full on-campus/full off-campus	Private	Credit to the source Fair use
				Commercial	Permission and fee
			Full on-campus/full off-campus/some offsite	Private	Credit to the source Fair use
				Commercial	Permission and fee
		Varies on item	Full on-campus/full off-campus	Private	Credit to the source
				Commercial	Permission and fee Forbidden
	Public domain	Library	Full on-campus/full off-campus/full offsite	Private	Credit to the source Fair use
				Commercial	Permission and fee Case-by-case
			Full on-campus/full off-campus	Private	Credit to the source Fair use
				Commercial	Permission and fee Case-by-case
	Licence	Other owners	Full on-campus/full off-campus	Private	Credit to the source
				Commercial	Permission and fee
		Library/other owners	Full on-campus/full off-campus	Private	Credit to the source Fair use
				Commercial	Forbidden
		Varies on item	Full on-campus/full off-campus	Private	Credit to the source Fair use
				Commercial	Permission and fee Forbidden
			Full on-campus/full off-campus/some offsite	Private	Credit to the source Fair use
				Commercial	Permission and fee
Born-digital content					Forbidden

Table 2. Policy decision tree for the born-digital information of academic libraries.

Content creation type	Acquisition method	Copyright ownership	Access	Reproduction	Conditions
Digitized content Born-digital content	Licence	Other owners	Full on-campus/some off-campus	Private	Credit to the source Fair use
				Commercial	Forbidden
		Library/other owners	Full on-campus/some off-campus	Private	Credit to the source Fair use Case-by-case
				Commercial	Forbidden Permission and fee Case-by-case
		Varies on item	Full on-campus/some off-campus	Private	Credit to the source Fair use
				Commercial	Forbidden
			Full on-campus/full off-campus/some offsite	Private	Credit to the source Fair use
				Commercial	Forbidden
			Full on-campus/full off-campus/full offsite	Private	Credit to the source Fair use
				Commercial	Forbidden
	Purchase	Other owners	Full on-campus/some off-campus	Private	Credit to the source Fair use
				Commercial	Forbidden
		Library/other owners	Full on-campus/some off-campus	Private	Credit to the source Fair use Case-by-case
				Commercial	Forbidden Permission and fee Case-by-case
		Varies on item	Full on-campus/some off-campus	Private	Credit to the source Fair use
				Commercial	Forbidden
			Full on-campus/full off-campus/some offsite	Private	Credit to the source Fair use
				Commercial	Forbidden
			Full on-campus/full off-campus/full offsite	Private	Credit to the source Fair use
				Commercial	Forbidden
	Voluntary deposit	Other owners	Full on-campus / Some off-campus	Private	Credit to the source Fair use
				Commercial	Forbidden
	Library content	Library	Full on-campus/full off-campus/some offsite	Private	Fair use
				Commercial	Permission and fee
			Full on-campus/full off-campus	Private	Fair use
				Commercial	Permission and fee

source or by applying the fair use doctrine. Commercial reproduction has two alternatives. Either it is provided with written permission from, and fees paid to, the copyright owner, or it is forbidden.

Finally, all the resulting policy routes can be found in Table 1, which represents the policy decision tree for the digitized information of academic libraries.

5.2 Policy decision tree for born-digital information of academic libraries

Examples of alternative proposed policy paths are analysed. Academic libraries may follow four options for their born-digital content acquisition: licensed, purchased, voluntarily deposited and library content. When born-digital content is purchased, either other owners hold the copyright, or library and other owners mutually administer it, or else it varies on an item-by-item basis.

When other owners hold the copyright, the proposed access policy path is full on-campus access, with restricted (some) off-campus access but no offsite access (forbidden for offsite users). Private reproduction should be permitted with an acknowledgement of the source or under fair use provisions, while commercial reproduction should not be authorized at all (taking the value forbidden). Two additional and alternative reproduction policy paths may be considered when library and other owners mutually administer the copyright: the case-by-case examination (private and commercial reproduction), and the provision of commercial reproduction with written permission from, and fees paid to, the owners (library and/or others owners).

When the copyright varies from item to item (encountered in purchased born-digital content), one of three proposed alternative access policy paths may be selected:

- full on-campus, some off-campus and no offsite (taking the value full on-campus/some off-campus);
- full on- and off-campus; some offsite (taking the value full on-campus/full off-campus/some offsite);
- full onsite and offsite (taking the value full on-campus/full off-campus/full offsite).

Private reproduction should be provided by acknowledging the source or by applying fair use doctrine while commercial reproduction should be prohibited.

Alternatively, academic libraries may select the voluntary deposit method for their born-digital content acquisition. This option arises since other owners control the copyright and normally impose access and reproduction policy restrictions. The proposed paths for restricted access (i.e. full on-campus, limited off-campus, no offsite) and reproduction (i.e. private: permitted for onsite users only while commercial reproduction is not authorized) try to protect the interests of the content creators while ensuring the voluntary depositing, viability and preservation of the born-digital content.

When born-digital content is licensed, either the other owners hold the copyright or the library and other owners mutually administer it, or else it varies on an item-by-item basis.

When other owners hold the copyright, the proposed access policy path is full on-campus access, with restricted off-campus access and no offsite access. Private reproduction should be permitted with an acknowledgement of the source or under fair use provisions while commercial reproduction should not be authorized.

When the library and other owners mutually administer the copyright of born-digital licensed content, three additional and alternative reproduction policy paths may be considered: the case-by-case examination for private and commercial reproduction; the application of the fair use doctrine for private reproduction; and the provision of commercial reproduction with written permission from, and fees paid to, owners (library and/or other owners).

When the copyright varies from item to item, one of three proposed alternative access policy paths may be selected: (1) full on-campus, some off-campus and no offsite access, (2) full on- and off-campus and some offsite access, and (3) full onsite and offsite access. Private reproduction should be provided by acknowledging the source or by applying fair use doctrine while commercial reproduction should be prohibited.

Table 2, representing the policy decision tree for the born-digital information of academic libraries, contains all the proposed policy paths.

6. Conclusions

By extending the policy model of the authors (Koulouris and Kapidakis, 2005c), and by applying statistical methods for analysing the questionnaires, the authors arrived at a proposed flexible and innovative policy decision tree for digital information management in academic libraries. The resulting decision tree, which is the essence of this paper, may constitute a map or a guide for decision makers and library managers in forming policies (e.g. access, reproduction) regarding the treatment of digital information in academic libraries. Additionally, it may be used as a policy pathfinder for academic digital information management. The theoretical framework of the decision tree may initiate the development of software tools that make decisions regarding policies for the management of digital information.

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Notes

1. Several projects that address issues such as access management (*Global Access Management – GLAM*), copyright policies (*RoMEO, SHERPA/RoMEO*), licensing and

preservation (*Copyright and Licensing for Digital Preservation – CLDP*), and intellectual property rights (*CEDARS*) were studied.

2. In this paper, the term 'policies' refers to *access* and *reproduction* policies.

3. For this research, the acquisition method may take the following values: *library* content (from library's collections), *free third-party* content, *public domain* content, *purchased* content *(purchase), licensed* content *(licence)* and *other* method. According to the answers derived from the survey, the *other* method includes *legal deposit, donation, not free third-party content* acquisition and acquisition that is based on *university regulations*.

4. The copyright may belong: to the *library*, which means that the library has or administers the copyright, to *other owner*, usually the information creator (e.g. an individual, an organization) or the information provider, which may be an organization, such as publisher, and to *nobody*, when public domain information is involved. However, something *different*, may apply, for example, the copyright diversification on an item-by-item or on a case-by-case basis, its sharing between different entities, etc.

5. The findings have been extracted and derived from the statistical analysis data of the questionnaires, which was conducted by using the *SPSS* (Statistical Package for Social Science) version 12. The tables, crosstabs tables, the chi-square tests x^2, are also derived from SPSS 12. However, the diagrams and the table processing were carried out in MS Excel.

6. The short questionnaire for the digital content and access policies of libraries consists of two pages, two sections and eight questions. Section A collects data for each corresponding library and its contact person. Section B contains questions about the digital collections – content type (e.g. book, audio, video, image) – as well as the access policies and the clustering that the libraries follow. The short questionnaire is available at http://dlib.ionio.gr/currentresearch/policiesqs.doc.

7. The questionnaires, (the short and the final versions) were sent to DL-relevant international mailing lists, such as *DigLib* and *IFLA-L* – provided and maintained by IFLA – as well as *ETD-L* – provided and maintained by Virginia Tech.

8. Pages 1 and 2 contain an introduction – the aim of the questionnaire and instructions for its completion. Section A gives an introduction of the library name, type, contact person, etc., and Section B gives information on the digital collections contained in each library examined. Sections C to F follow, describing the *factors* (acquisition method, copyright ownership, etc. – Section D), the *policies* (access, reproduction – Section E), and additional information *(Section F),* for each digital collection examined. Sections C to F are repeatable for each additional collection of the library. The policy data and statistical analysis are based on collection level (67 collections of 34 libraries). The survey questionnaire is available at http://dlib.ionio.gr/currentresearch/policiesqf.doc.

9. When the value of x^2 is less than 0.05 the statistical hypothesis that the two variables are independent is overruled.

10. The *other types of digital content* that emerged are maps, postcards, artworks, illustrations, *photos*, cartoons, portraits, artifacts, *manuscripts*, leaflets, posters, images, virtual exhibitions, technical reports, bibliography, CD-ROMs, web pages, databases, slides, course notes, lecture notes, exam issues, translations, university publications, government reports and conference proceedings.

11. The report is available at http://dlib.ionio.gr/reports/TR2006_01.pdf.

12. http://dlib.ionio.gr.

13. The value *other library type*, includes the public, special, or private and profit libraries.

14. *Allocation* means where the copyright belongs.

15. If the access will be, free (worldwide), only onsite, only on-campus onsite, etc.

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