Digital preservation and copyright: future paths Notes by Milagros del Corral

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Technical aspects to be taken into account

Creation, storage, retrieval and use of digital objects require interrelation amongst various elements (application software, operative system, hardware and processor it employs). Unfortunately, techonology evolves **uncoordinated** at a vertiginous path until nothing works anymore if appropriate preservation is not ensured.

Obsolescence affects the hardware (2-5 years) the software (18 months average) and physical storage supports - degradation, deformation and even deletion – (3-30 years for magnetic supports, 5-100 years for the optical ones)

As a result, migrations of different kinds are obligatory at least every 5 years and the preservation programme has to be initiated parallely to digitisation. Migrations generate new problems particularly with regard to special characters, format (tables, etc.) style and overall **text enrichments** that require human intervention for corrections. Same happens to functionalities, particularly **links.** This has particular incidence on often updated complex digital works such as enciclopedias, geographical information Systems, etc.

Ideally, creators of born-digital documents, typically in the Internet, should mention used formats (currently TIFF, JPEG, PDF with OCR, etc.) and application software but this is not the case. In fact, publishers do not ensure preservation unless market opportunities so advise.Therefore, Internet archiving must systematically collect succesive versions of a given URL ("way back machine") **Basic elements of a preservation programme** are adequate technical infrastructure for storage, standarized metadata (Dublin core) in order to ensure integrity, authenticity, copyright control and limitations of access to authorized users.

Preservation metadata must follow previously adopted norms with regard to formats, supports, procedures, control of use of copyrighted materials, etc. as well as for **refreshing** (change to a new storage support) **migration** (transfer of the original software to an upgraded version or a new operacional system, or a different application software) and environment **emulation** (typically in digital museums, digital archeology, etc) . They must incluye cataloguing format (MARC version) and vital information for preservation (formats, versions, date of capture, transcriptor, producer, encryption, water marks, resolution, compression rate, colour and grey scales, and historic track of introduced changes along successive migration processes, etc)

Digital objects have a lesser warranty of survival than the original analogic work they intend to "preserve", thus, microfilming cannot be economised.

Legal perspective

International Source: UNESCO Charter on the preservation of Digital Heritage (2003) and subsequent recommendations for libraries and archives.

The explosion of new contents requires updating **Legal Deposit norms** and enlarge their scope to include digital materials, existing or to be created in the future (multimedia, e-books, printing on demand, etc).

1. Internet archiving.

National Libraries, responsable for archiving their corresponding national domains have to be granted an **exemption** in a legal norm of appropriate level in order to carry our this work which is an integral part of their very mission. The archive of Internet implies periodical browsing for reproduction and communication purposes (ex.: the French case). The exemption should permit, at least, limited access, both in the library premises and through remote access, protected by password to authorized entitled users (typically holders of Library's research cards)

Legal Deposit norms should establish appropriate enforceable norms to be included in digital Internet documents by their creators, such as name and postal address of the site responsable physical person or legal entity, at least.

The Draft Bill on Legal Deposit (Spain) to be submitted to Parliament next January 2009, follows this path. It also provides for legal deposit of books, journals and newspapers in electronic format, on a volontary basis. The National Library of Spain will not spare efforts to convince publishers of the interest of legal deposit in electronic format for optimal preservation of data bases, commercial digital journals, etc. Some agreements with individual newspaper publishers are well underway. It is worth reminding that digital journals other than those free-of-charge in the web, as well as commercial scientific data bases are negligeable in Spain. Existing ones are produced by public research institutions and therefore copyright-free by law.

2. Inclusion of copyrighted works in library's digital collections

Currently, libraries concentrate their digitisation efforts in the public domain, i.e., those works published before World War I. However, there is an increasing social demand, also accompanied by the European Commission with regard to Europeana, to include copyrighted works in digital libraries. In association with French publishers, the National Library of France has pioneered in this field through the recent launching of an experimental platform that offers copyrighted materials within its digital library *Gallica2* with full-text search and limited conditions for access.

The National Library of Spain, in joint-venture with the Spanish Federation of Publisher Associations, has submitted to the National Research Plan an R+D+i Project – *E-BIDEXXI* - with analogue purpose. Subject to approval next fall, it intends to create a "knowledge center" on digital offer of copyrighted materials including the creation of a prototype within the *Hispanic Digital*

Library, the BNE's digital offer. In order to comply with copyright law, the Project foresees to obtain a licence of CEDRO (the Spanish RRO for authors and publishers) whose tradicional scope for reprographic licences has recently be extended to digital licences. The prototype platform would be accessible for one year and its impact on user satisfaction, market sales and the development of electronic trade will be carefully scrutinized. Results will be published nationally and internationally and lessons learned will be applied to future developments.

Those licenses have to provide **perpetual access** to licensed materials for long-term preservation purposes (alike to those already adopted for International Electronic journals, *Elsevier, etc.*) and subsequently cover new added titles.

3. Digital preservation and moral rights

Moral rights can be affected by migrations of platforms (physical presentation may be distorted) content framing (if authorship is occulted) and deep-linking (adding links) that may be considered as an attempt against integrity of the work. However, this is due to technical reasons along the preservation process, something libraries cannot escape. In the case of Internet archiving, depository libraries must respect the conditions of exploitation (sometimes excluding framing and deep-linking) as, and if, appropriate mention appears in the web site.

It is also true that preservation may be impeded by **technological protection measures** applied by the work producer, and will have to be removed once the work falls in the public domain. In such cases, exceptions granted to libraries by law for preservation purposes are applicable and must be enforceable.

As a conclusion, copyright needs to be also maintained and respected in the digital environment and libraries need to pursue their mission of collecting and promoting heritage also in the cyberspace in order to meet user's requirements through new services made possible by new technologies. A fair articulation of both implas that current exceptions to copyright for preservation purposes by libraries are extended to digital works, to cover migrations and related technical requirements for digital preservation as well as for Internet archiving by entitled depository

libraries. In the case of digitised copyrighted materials, collective licensing that includes perpetual access to licensed materials is the only workable solution for libraries.

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