IPELTU Use Case for Libraries

Since the beginning of human history, libraries have been a foundation for culture, education, and social participation. Libraries key role consists in ensuring in the centuries access and preservation of historical and actual materials and treasures physically stored into it. The digital transformation has strong impacts in archiving and disseminating the information concerning the history of humanity. Libraries enforced their role of competent digital incubators of culture, acting as a continuous producer of knowledge, transforming the operational processes, adopting new organizational model, innovative spaces and technologies, building digital platforms to provide new services and facilitate a broad engagement of users.

To manage this transformation, digitalization programmes based on a sustainable financial plan are defined, whose objectives are the rethinking of the information model, the digitization of physical material in internal labs or co-labs with other partners, the widespread and interoperable access between Libraries, Museum, Archives, Universities, and companies in the territory and in the international ecosystem, and the continuous exchange of cultural assets in order to provide knowledge in new forms depending on the user’s requests. High volume of data and several files formats requires specific procedures to ensure the life of data against technological obsolescence.

Digitalization is supported by Digital Asset Management systems that introduce new means of classifying, searching, upload collection of digital objects from sources (scanners, OCR, ...), performing quality checks, verifying the confidentiality / adding rules for protection or rendition before publishing on the digital library access platform. Digital libraries platforms may be viewed as a new form of information institution or as an extension of the services libraries currently provide. Libraries can support a diverse range of activities and develop new relationships across user communities.

The purpose of library’s digitization strategy is a broad access and the long-term preservation of materials stored into it. Project plan shall prevent loss or deterioration of historical data of relevance to the user community. The strategy shall consider several issues like target audience, nature of materials, technology to be used, standards and requirements.

In a digitization project shall be consider the reasons for digitizing that can include, for example, improving access to rare and/or unique materials, to protect fragile or heavily used materials, to create educational resources and new target audience. Another essential element is the nature of file’s format. It is necessary organize and manage every kind of file format depending on whether they are visual materials, printed text, audio, video or physical objects.

After selecting resources to be digitized, it is necessary to establish that collections have a clearly defined ownership, like rights and permissions for electronic distribution that must be secured or securable. Every object should be in an appropriate format and physical condition for scanning, that can be handled, nondegraded, with enough clarity of detail.

For every collection selected for digitization it is necessary to consider if the materials are in the public domain or if the Library can get permission from the rights holder to make them available online, if they are unique and not already online. Every digital object put online must be followed by information describing the item’s copyright status and the provenance. Shall also be determined which are appropriate equipment and skills for creating a good-quality version of materials. In fact, it is necessary to proceed to physical digitization of materials through use of appropriate technology like scanner, software, external hard drive, workstation.

Once established copyright status statement and physical condition of materials, it is necessary to collect and organize the collection through item-level data (e.g. date, creator, title, etc.). Libraries use Archivists’ tools to classify the materials according to the applicable standard (e.g. ISAD, ISAAR) and to enrich the descriptive information with relevant information for the users.

Data shall be used to locate or manage information resources by abstracting or classifying those resources or by capturing information related to them. In general, is good practice organize data into distinct categories and relies on conventions to establish the values for each category.

To improve the experience of the user communities, during the data discovery and exploitation the Libraries add descriptive information and representation information that facilitate the understanding of collections over time.

The digitalization shall also be considering the target audience through the implementation of appropriate new services of use. Digital collection shall expand access to document, enhance services, optimize resources, to enrich user experience. The access must however be based on a system of assignment of permission based on user’s role. After the publication, the digital objects are searchable and accessible from the discovery tool integrated in the library Online public access catalogue (OPAC) of from the digital library website.

To provide access to high quality image resources following common presentation rules and compatible access and viewing criteria, an international community of Libraries, Museum, companies has defined the International Image Interoperability Framework (IIIF). The framework consists in a set of APIs for authentication, searching, viewing, comparing and annotating digital objects. IIIF enables an effective exchange of books, maps, manuscripts, archival material, musical scores, ancient newspapers images between different user communities around the world. Open IIIF Viewers are promoted by the community for a shared user experience.

The digitalization program includes the transfer of the digitized collections and related data packages to a long term Data Preservation Service, in charge of managing back-end processes of appraisal, ingest, archival storage and controlled dissemination to the access channels by the user communities.