



PRE-DIGITIZATION: A ROADMAP FOR CONTENT DEVELOPMENT TO FACILITATE DIGITIZATION

(A SCENARIO BASED ON DIGITIZATION OF INTERNATIONAL MOUNTAIN MUSEUM IN THE POKHARA, NEPAL)

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ABSTRACT

This paper identifies an attractive process as a Pre-Digitization for collecting and generating valid information in order to facilitate digitization. Further, proposes the process as a Roadmap for content development which is demonstrated by means of a real case study "Mobile Guide Application".

KEYWORDS

Museum, Artifact, Pre-Digitization, Digitization, Digital assistant, Information, approach, Roadmap, IMM

1. INTRODUCTION

1.1 Background

This is the age of Information Technology and it would not be an exaggeration to say that no any aspect of our social life is untouched by information technology because of its ability to collect, preserve and manage information in one touch. As a result, today's world moves toward this technology rigorously and this is known as digital world. In digital world people can access information in different form such as text, picture, audio, video etc. at any time and place in accordance to their needs using digital equipment (digital assistant) such as computer, laptop, mobile and tablet.

On considering these facts, a team including me as a member started a Research and Business Development (R&BD) Project with a goal of developing Mobile Guide Application for providing information about the International Mountain Museum and their artifacts to the visitors in an interactive way with the help of QR code in different formats such as text, images, audio and video, and in different languages according to their choice via smart mobile using Android/iOS application.

It is interesting to note that the digitization of information is the most important as well as difficult phase to carried out for such projects. The failure of such projects has concerned with this phase because of the followings:

- From where and whom artifacts information should collect.
- Some museum artifacts do not have information.
- Some museum artifacts have incomplete information.

- Museum has artifacts with descriptive or perspective information.
- Artifacts may have controversial information.
- Same artifact may have different information.

These lead the difficulty on collection and generation of valid information. This affects the digitization and results in project failure. Hence, these problems need to be addressed. Many approaches have been used to resolve these problems but cannot get significant result because they are focused on how to digitize information and included information creation within a digitization process. So, we need a kind of approach that should focus on what information is to be digitized and consider information creation as a different component that provides way for digitization, for which an approach called Pre-Digitization become a milestone because of containing simple and powerful procedures for collecting and generating valid information.

1.2 Pre-Digitization

The process of collecting and generating valid information that would be subjected for digitize. This refers the task of what information is to be digitized rather than how information is digitized. This process provides the procedure for collecting and generating valid information that may become a roadmap for digitization. So, one can said Pre-Digitization as a highway for driving digitization in the way for feeding the information that represents the original scenario.

1.3 International Mountain Museum

The International Mountain Museum abbreviated as IMM is a biggest museum located in Pokhara, Nepal. As a name this museum has a number of collections on information and artifacts related to mountain such as famous mountains of Nepal as well as world, mountain people of Nepal and mountain activities. More information on IMM can be seen from the site <http://www.internationalmountainmuseum.org>.



Figure 1: A photo of IMM

1.4 Problem Definition

Digital assistant can access the digital information only. This necessitates the digitization and digitization is based on valid defined information. Collection and generation of valid information to represent the original scenario have always been the major problem for the development of successful digital information. This approach called Pre-Digitization makes the possibility of playing the role to resolve the problem.

2. REVIEW OF RELATED WORKS

Various papers, Journal articles and cases related to museum digitization have been examined thoroughly from internet. These are:

- According to Tanner S [1], the transition to digitized collections provides a new set of opportunities to online engagement with arts and culture. Such transition has indeed triggered the demand for users to share, aggregate and link digital content across institutional boundaries. As most collections represent only part of the corpus of any single artist, subject area or era, the need to pull together cultural resources from across many institutions may be seen as an intellectual imperative for enhancing users' experience to museums collections.
- Bray, P., [2], stated that, the digital environment is dramatically making obsolete the traditional image-licensing models (both for commercial and non-commercial use) set by museums. For instance, while traditional licensing models require complex procedures and typically tailored on the demand of art publishers and scholarly researchers, the reproduction of digital images of cultural collections entails new types of web users and demand for a faster dissemination of authoritative digital content.

Further, a number of materials related to museum and its artifacts have been reviewed from the IMM library. Online shopping sites available in Nepal such as drax.com.np are also observed thoroughly.

3. CONCEPTUAL FRAMEWORK

The methodology of content development i.e. Pre-Digitization is based on following stages:

- Realization of needs
- Planning and strategy
- Information collection
- Information generation
- Information validation
- Information processing

This can be summarized as:

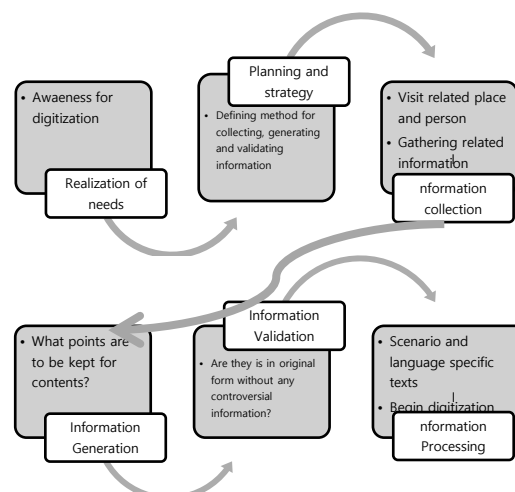


Figure 2: Pre-Digitization Process Diagram

4. A PROPOSED ROADMAP

The application of Pre-Digitization to collect and generate valid information that could be subjected for digitization will be demonstrated by means of a real case study.

Alternatively, the scope of this section is to demonstrate how the approach called Pre-Digitization can be applied in the real-world problem to provide roadmap for digitization.

4.1 A Case Study

The task is to develop Mobile Guide Application

4.1.1 Mobile Guide Application

An app for providing information about the International Mountain Museum (IMM), Pokhara, Nepal and their artifacts to the visitors in an interactive way with the help of QR code in different formats such as text, images, audio and video, and in different languages according to their choice via smart mobile using Android/iOS application.

4.2 Application of Pre-Digitization

The Mobile Guide Application will require efforts of several process, methods, equipment and human resources together. However, the task is started with the collection and generation of valid information, for valid information the approach called Pre-Digitization can be implanted as:

4.2.1 Realization of needs

During these days mobile phone/tablets will act as main digital assistant where ever we go. The tourists/visitors like to search any information on their device rather than interrogating other people. Further, if information is stored digitally, it could be immortal and there are no chances of information being disappeared. The pain of losses of information due to disasters like earthquake, fire, etc will be minimized on digitization.

These necessitate the digital information, which is realized by the museum team however the consultant team will describe the scenario for the realization.

4.2.2 Planning and strategy

A workshop has been jointly organized by the museum and consultancy team at IMM with a purpose of collecting and generating valid information about the artifacts kept at International Mountain Museum, where museum staffs, consultancy team with experts, cultural and environmental experts, Nepal Mountaineering Association member/staffs/experts, media persons, professional writers and president/representative from society of each community are invited as mentor/speaker/participants.



Figure 3: A photo from organized workshop

This workshop provides the information about the project, IMM with its artifacts, guidelines for collecting and generating information. Further, categorized the artifacts and built the teams with responsibility of collecting and generating artifact information, containing professional writers, museum staff, consultancy staff, and experts of the related field on the basis of the group of artifacts.

Table 1: Schedule of organized workshop

S.No.	Key Activities
1.	Introduction about the project
2.	Introduction about the Museum (IMM) with their artifacts
3.	Discussion and development of plan for collecting, generating and validating artifacts information
4..	Categorize the artifacts
5.	Load distribution (build team with respect to the artifact's category and provide them responsibility with method)

4.2.3 Information collection

Each team collects base information of respective artifacts as per the given guidelines:

Visit and collect artifacts information from museum at first. Then visit the related expert to edit, update and verify the information.



Figure 4: A photo of collecting details of Mountaineering from Guinness record holder Speed Kazi Sherpa at IMM

4.2.4 Information generation

Here, each team has got one more team member as a professional script writer, who convert the collected information as an artifact's information as per the provided guideline:

Selection of Word:

- Use a dictionary and thesaurus for the words you doubt.
- Avoid redundancy (Repetition of information) and circumlocution. (mess of words when Single word can work)
- Avoid jargon. (Words used by professionals)
- Avoid obsolete (No longer used), archaic (Old fashioned), or invented words.
- Avoid slang, and nonstandard English.
- Avoid qualifiers (adjective or adverbs showing opinion)
- Avoid fancy words. (Elaborated and decorated)
- Avoid offensive or sexist language. Use Gender Neutral Pronouns.
- Prefer vivid nouns and active verbs to adjectives and adverbs.
- Use British English words and spelling.

Sentence Structure:

- Use short sentences. Avoid lengthy and compound sentences.
- Prefer active to passive voice.
- Vary sentence structure.
- Maintain consistency of tone, and smooth the general flow of words.
- Use British English structure for sentences.
- Layout of the Article:
 - Start with a 'Lead Sentence' which directly introduces the 'Heading' artifact.
 - Continue with the clear structure. Use '5-W + 1 H information' (Information interrogated with What, Who, When, Where, Why and How), if possible, to describe.
 - Use Summary style. Don't elaborate for describe in minute detail.

Points to remember:

- Avoid point of view (I, He, She, You).
- Avoid bombastic wording, attempts at humor or cleverness.
- Reliance on primary sources.

- Don't try to persuade or appeal to emotion.
- Don't compare things in relation to the people unless it is emphasized in the display of artifacts.
- Avoid controversial facts.
- Avoid stating opinion as facts.
- Avoid stating facts as opinions.
- Prefer nonjudgmental language
- No making of assumptions.
- Say no more than you mean.
- Be as concrete as your meaning allows.
- Put statements in positive form.
- Don't use metaphors.



Figure 5: A photo of content generation team on duty

4.2.5 Information validation

Generated informations were submitted to the validation team. After validation, the team submitted the information to the museum and the museum again verifies as well as validates the information and provided to the processing team.

4.2.6 Information processing

The valid informations provided from the museum were typed using computer on the instructed format to get a final textual version of valid information about the artifact.

After getting the valid textual information about the artifacts, the consultancy team makes a discussion with museum team on the basis of the nature and purpose of the information as well as artifacts, proceeds ahead on the process of digitization of information on suitable format such as textual, audio, video etc. to fulfill the needs.

5. CONCLUSION

Pre-Digitization has the simple and sequential set of phases progressed one after another in a sequence logically. It is very simple to understand and use. Valid information can be collected and generated easily with the help of Pre-digitization. Each phase encourages all stakeholders to take an active part in the process. This reduces misinformation as well as misinterpretations about the information and increases the understanding of information with respect to the scenario.

This helps to collect and generate valid information. Once the valid information has been created, it opens the door for the digitization, that is provides the roadmap for digitization. Hence, Pre-Digitization is a Roadmap for Content Development to Facilitate Digitization.

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REFERENCES

- [1] Tanner S., 2004. Reproduction Charging Models & Rights Policy for Digital Images in American Art Museums, Andrew W. Mellon Foundation; New York at <http://www.kcl.ac.uk.kdcs/>
- [2] Bray, P., 2009. Open Licensing and the Future for Collections. In Museums and the Web 2009: Proceedings, J. Trant and D. Bearman (eds). Toronto: Archives & Museum Informatics. Published March 31, 2009. Consulted November 16, 2011. <http://www.archimuse.com/mw2009/papers/bray/bray.html>
- [3] Besser, H., 1997. The transformation of the museum and the way it's perceived. In The Wired Museum: Emerging Technology and Changing Paradigms; K. Jones-Garmil, (ed.). American Association of Museums: Washington, D.C., 153-170.
- [4] Cameron, Fiona (2005). Collections, Documentation and Shifting Knowledge in Museums in a Digital Age. In PARRY, Ross (ed.)(2010) Museums in a Digital Age. London, Routledge p. 80-95

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