**Digital library for endangered documents: an approach towards preservation of palm leaves manuscripts**

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Damage rate of endangered documents is very high by many ways. Such documents are usually not confined to the limited boundaries of conventional library system, instead that are scattered around and become the part of private collections, institutional collections and also official archives. When it becomes the part of a private collection, the possibility of damage is very high. Steps to make digital library for endangered document solves this issue considerably. This article explores different attributes for organizing a digital library for endangered documents and the users’ attitude towards the use and usability of the same and primarily focuses on with the attitude of users towards the digitization of palm leaves manuscripts.

**Keywords:** Digital Library, Digital Archiving, Digital Preservation, Palm leaves Manuscripts, Endangered Documents

**INTRODUCTION**

The term „Library” has to be redefined in view of the current technological advancements that are taken places in all areas of library activities. The system of library has subjected for tremendous changes not only in its contents but its physical substance too. In a conventional library system, there was time that people rushing in to the library demanding their required resources. Now there is a turn in its attitude and the libraries are towards the people or one step ahead the libraries are along with the people. Now the world of knowledge is confined to a small device using mobile spectrum which is a companion to all walks of life. Then the physical boundaries of a conventional library system are getting vanished and people become more reliant on consulting with digital libraries. At the same time the digital library system as a whole not up to the mark of mull over all the endangered documents. It is not an easy task to bring out digital version of endangered documents in a fine morning even at a small area. More over the act of digitizing endangered documents such as palm leaf manuscripts have a vide perspective in view of preserving the intellectual astuteness of the past.
EXPANSION OF KEY TERMS

Digital Library: According to Lesk, digital library is “a collection of information that is both digitized and organized and which offers capability beyond those of the traditional library.” Association of Research Libraries define that “not a single entity, requires technology to link the resources of many, linkages transparent to the user, permit universal access, not limited to document surrogates but extend to the digital artifact.”

Endangered Documents: Documents that are “expose to harm or damage”.

Palm leaves Manuscripts: Made up with biological substance and hence prone to damage which is used as a writing media from ancient time.

SCOPE OF THE STUDY

Keeping in mind the wide acceptance of digital libraries, it is quite interesting to study the attitudes and approaches of palm leaves manuscripts users and custodians towards the digitization of endangered documents. The scope of the study lies not only on the above, but to study the changing attitude of library users who were always pro for the traditional and conventional models.

OBJECTIVES OF THE STUDY

Taken in to account the importance of safeguarding the contents of palm leaves collection, the objectives of the study can be summed up as follows;

• to find out whether the palm leaves manuscript users were satisfied with the preservation status;
• to find out whether the users were experienced any damage to the manuscripts;
• to find out users suggestion for preserving the contents on manuscripts;
• to find out users suggestion towards the digitization of manuscripts.

REVIEW OF LITERATURE

Ed Fay Julianne Nyhan, (2015) is of opinion that the application of computer technology is taken place at all areas of human being. It happens from personal life to the profession. Universities, Museums, Libraries and even homes are the stake holders of digital conversion of documents and it open new way for new study and results more number of publications. He also coincide a term “digital humanities”. Shama R K and Vishwanathan K R, (2001) observes that “library is an institution oriented towards collections and custody, where people may make use of the facilities. Whereas a digital library is a computer-based system for acquiring, storing, organizing, searching and distributing digital materials for end user access”. The article also aims to identify those areas where the problem exists and suggest remedies for the effective functioning of digital libraries. “The concept tends to feature more prominently when talking about digital libraries rather than about physical ones, but physical libraries have to deal with it too. Traditional libraries may not regularly have to justify their existence but most, these days, need to struggle to maintain their budgets” Val Hamilton, (2004). He also describes that previously the term sustainability was used towards the end of a digital library project but it is an important part of the project development. “Some would claim that virtual museums are simply digital libraries by another name, while others would argue that the two are quite distinct. The truth lies somewhere in between or rather there is some truth in both statements” Jane Barton, (2005). Digital archiving of palm leaves manuscripts plays important role in preserving manuscripts. Digital preservation safeguards the contents rather than the physical substance. Mohamed Sageer T K and Francis A T, (2014)

METHODOLOGY

No way to find out how many people in Kerala is using palm leaves manuscripts for their study or professional use. It was decided to collect data from maximum number of users comprising people in popular religions wise, Hindu, Christian and Muslims and people who are working in different areas such as teachers, medical practitioners, Jyothishi, vastu consultants, and also from students. A total of 550 questionnaires were distributed among the users of palm leaves manuscripts of which 340 were returned. Taken into account the number of returned questionnaires, the response rate was 61.81

USER ANALYSIS

User data analysis is done by religion, profession and use. Due importance were given to those who belongs to major religions in the state and to profession by which consult palm leaves manuscripts and the frequency of use.

Religion wise distribution: Table 1 above shows religion wise distribution of respondents. It shows that out
of 340 questionnaires returned 214 was from Hindu users, 68 was from Christian and 58 was from Islam and the percentage rate was 85.6, 20 and 17.05 respectively.

**Profession wise distribution:** Table 2 above shows that 145 out of 340 respondents were non-professionals which includes 109 students and 36 traditional scholars. Others were teachers, medical practitioners, vastu consultants and Jyothishis.

**Use wise distribution:** Table 3 above shows that out of 348 respondents 134 are using palm leaves manuscripts regularly and 206 were casual users.

**Analysis of Data**

The following analysis is done based on the objectives of the study. The very first objective was to find out whether the palm leaves manuscript users are satisfied with the preservation status.

**Preservation status:** Table 4 shows users opinion on preservation status of palm leaves manuscripts in the state of Kerala. The study reveals that majority of users (76.18%) are of opinion that manuscripts custodians are not well preserved their manuscripts.

**Awareness on preservation:** Chart 1 shows awareness of custodians on preserving palm leaves manuscripts. The study shows that majority of the custodians (81.18%) were not aware the value and importance of keeping manuscripts without deterioration.

The second objective of the study was to find out the rate of damages to the manuscripts and what are the reasons for that.

**Damage to Manuscripts:** Chart 2 shows that there is
damage to manuscripts at larger rates.

**Causes for damages:** Chart 3 shows that, there were many causes for damages of which biological factors lead the deterioration process and climatic factors follows. Chemical factors also one of the major causes for deterioration.

Third objective of the study was to find out the users suggestions in preserving contents on a palm leaves Manuscript. The study shows that 100 percent of the users opined that the palm leaves manuscripts can be considered as an important reference source and the contents has to be safeguarded.

**Suggestions for preserving contents on manuscripts:** Table 5 shows that majority of the users choose digitization as the remedy to safeguard the contents of the palm leaves. At the same time few users recommend that the physical substance of the manuscripts has to be preserved protecting them from further decay and copying the same to fresh leaves.

Fourth objective of the study was to find out the users attitude and opinion on digitizing the manuscripts. The study shows that the users as a whole in favor of digitization and a negligible portion expressed no comments.

**Attitude towards digitization:** Chart 4 shows that 333 users out of 340 were favor of digitization of manuscripts while 7 were recorded no comments on the matter. They are of opinion that the digitization is the only remedy to
Causes for damages

Chart 3: Opinion on Causes for Damages

Users attitude towards digitisation %

Chart 4: Distribution by Favor and Not Favor.

Table 5: Suggestions for Preserving Contents on Manuscripts

<table>
<thead>
<tr>
<th>Option for safeguarding contents</th>
<th>Percentage</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digitize the manuscripts Digitize, save from further decay and copy the manuscripts.</td>
<td>33.50</td>
<td>33.50 %</td>
</tr>
<tr>
<td>Digitize and save from further decay</td>
<td>21.50</td>
<td>55 %</td>
</tr>
<tr>
<td>Digitize and copy the manuscripts</td>
<td>41.80</td>
<td>96.80 %</td>
</tr>
<tr>
<td>Digitize and copy the manuscripts</td>
<td>3.20</td>
<td>100 %</td>
</tr>
</tbody>
</table>

safeguard the contents on manuscripts at the same time it enhances the use of manuscripts.

Advantages of digitization: Table 6 shows that there were many advantages for digitization of which preserving contents of manuscripts is of prime importance.

Use pattern of digitized version of manuscripts:

Table 7 above shows that 74.12 percentage of users is of opinion that digitized version of manuscripts are easy to use of which 61.77 % are in the group of very easy to use.
**Table: 6 Advantages of Digitalization**

<table>
<thead>
<tr>
<th>Advantages of Digitalization</th>
<th>Number</th>
<th>Percentage</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preserving contents, easy access and retrieval, multi user access and saving money and time.</td>
<td>150</td>
<td>44.10</td>
<td>44.10%</td>
</tr>
<tr>
<td>Preserving contents, easy access and retrieval and multi user access</td>
<td>95</td>
<td>27.90</td>
<td>72.00%</td>
</tr>
<tr>
<td>Preserving contents and easy access and retrieval.</td>
<td>61</td>
<td>18.00</td>
<td>90.00%</td>
</tr>
<tr>
<td>Preserving contents and multi user access.</td>
<td>34</td>
<td>10.00</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Table 7: Use Pattern of Digitized Version of Manuscripts**

<table>
<thead>
<tr>
<th>Use Pattern</th>
<th>Number</th>
<th>Percentage</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, very easy to use</td>
<td>210</td>
<td>61.77</td>
<td>61.77%</td>
</tr>
<tr>
<td>Somewhat easy</td>
<td>42</td>
<td>12.35</td>
<td>74.12%</td>
</tr>
<tr>
<td>Not easy compare to palm leaves</td>
<td>88</td>
<td>25.88</td>
<td>100%</td>
</tr>
</tbody>
</table>

**FINDINGS**

- Still a large number of scholars consulting palm leaves manuscripts as a reference tool irrespective of religion and area of works;
- Majority of the users opined that palm leaves manuscripts are not preserved well;
- It was proved that majority of the custodians are not aware of the preservation of manuscripts;
- Damage to the manuscripts are there at larger rate;
- Natural, Chemical, Biological and Climatic factors are the major causes for deterioration of manuscripts;
- Majority of the users opined that digitization is the remedy to safeguard the contents on manuscripts and some of them suggests to preserve the manuscripts as it is from further decay;
- 97% of the users are favor of digitizing manuscripts;
- Preserving contents, easy access and retrieval, multi user access and saving money and time are the advantages of digitization;
- Majority of the users opined that digitized version of manuscripts are very easy to use.

- The state government has to take steps in organizing manuscript collection by enacting appropriate law.
- Manuscript collection has to be declared as national wealth and policies to be declared safeguarding manuscript

**CONCLUSION**

As time passes, the possibility of deterioration of documents increases and being the biological substance, palm leaves manuscripts undergo damages at large rate. A large number of documents come to endanger that are ahead of damage at immediate future. Safeguarding such documents is obviously become important also raise big challenge before the archivist and information preservationists. The study very clearly recommends digitization as a remedy in safeguarding contents on an endangered document apart from other number of advantages. People are still depend palm leaves manuscripts for their reference purposes and treat them as an authentic reference source. IT enabled services taken up the role of information handling which speeds up the use and reduces wastage of energy, money and time. Digital libraries for endangered documents safeguard the ancestral wisdom, cultural wealth and nation’s heritage.

**SUGGESTIONS**

- Take all efforts to digitize the endangered documents;
- A central database has to be setup and contents in full text should be provided;
- Formulate a uniform preservation strategy and train the custodians on that;
- Orient and make aware the custodians the importance of manuscripts;

**REFERENCES**


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