

DIGITAL LIBRARY FOR ENDANGERED DOCUMENTS: AN APPROACH TOWARDS PRESERVATION OF PALM LEAF MANUSCRIPTS

Mohamed Sageer. T. K.

Research Scholar, Dept. of Library and Information Science
Karpagam University.
E-mail: tkmsageer@gmail.com

Dr. A. T. Francis

Head, Library, College of Horticulture,
Kerala Agricultural University, Thrissur – 680 656.
E-mail: francisaloor@yahoo.co.in

Abstract

The damage rate of endangered documents is very high by many ways. Such documents are usually not confined to the limited boundaries of the 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 leaf manuscripts.

KEYWORDS: Digital Library, Digital Archiving, Digital Preservation, Palm leaves Manuscripts, Endangered Documents,

1. INTRODUCTION

The term 'Library' has to be redefined in view of the current technological advancements that have taken place in all areas of library activities. The system of the library has subjected to tremendous changes not only in its contents but its' physical substance too. In a conventional library system, there was a time that people rushing into 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 the digital version of endangered documents in a fine morning even in a small area. Moreover, the act of digitizing endangered documents such as palm leaf manuscripts has a wide perspective in view of preserving the intellectual astuteness of the past.

2. EXPANSION OF KEY TERMS

Digital Library: According to Lesk, the 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 artefact.” 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 medium from ancient time.

3. 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 leaf 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.

4. OBJECTIVES OF THE STUDY.

Taken into account the importance of safeguarding the contents of the palm leaf 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 experiencing any damage to the manuscripts;
- To find out user's suggestion for preserving the contents of manuscripts;
- To find out user's suggestion towards the digitization of manuscripts.

5. REVIEW OF LITERATURE

Ed Fay Julianne Nyhan, (2015) is of opinion that the application of computer technology has taken place at all areas of the human being. It happens from personal life to the profession. Universities, Museums, Libraries and even homes are the stakeholders of digital conversion of documents and it open new way for new study and results number of publications. He also coincide a term “digital humanities”. Sharma, R K and Vishwanathan K R (2001) observe

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 mostly, 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 leaf 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)

6. METHODOLOGY

No way to find out how many people in Kerala is using palm leaf 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 leaf manuscripts of which 340 were returned. Taken into account the number of returning questionnaires, the response rate was 61.81.

7. USER ANALYSIS

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

Table 1: Religion Wise Distribution of Respondents

Religion	Population	Samples
Hindu	250	214
Christian	150	68
Islam	150	58
Total	550	340

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.

Table 2: Profession Wise Distribution of Respondents

Profession	Number	Percentage	Cumulative %
Non Professionals	145	42.65	42.65 %
Teacher	90	26.48	69.13 %
Medical Practitioner	69	20.29	89.42 %
Vastu Consultant	23	6.76	96.18 %
Jyothishi	13	3.82	100 %

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.

Table 3: Use Wise Distribution of Respondents

Use pattern	Number	Percentage	Cumulative %
Regular	134	39.41	39.41 %
Casual	206	60.59	100 %

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

8. Analysis of Data

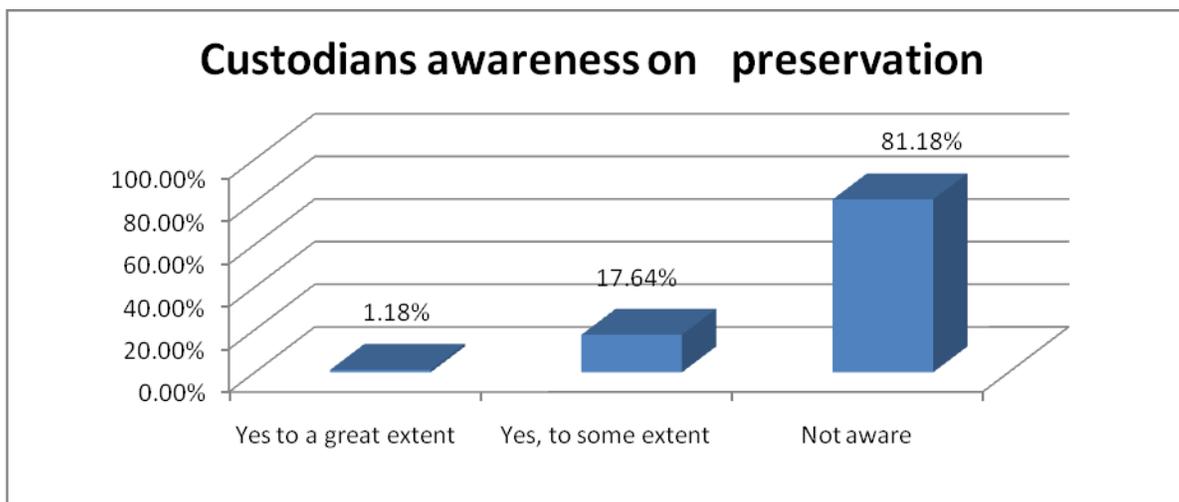
The following analysis is done based on the objectives of the study. The very first objective was to find out whether the palm leaves manuscript users are satisfied with the preservation status.

Table 4: Preservation Status

Preservation Status	Number	Percentage	Cumulative %
Well preserved	7	2.05	2.05 %
Not well preserved	259	76.18	78.23 %
Well preserved to some extent	74	21.77	100 %

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

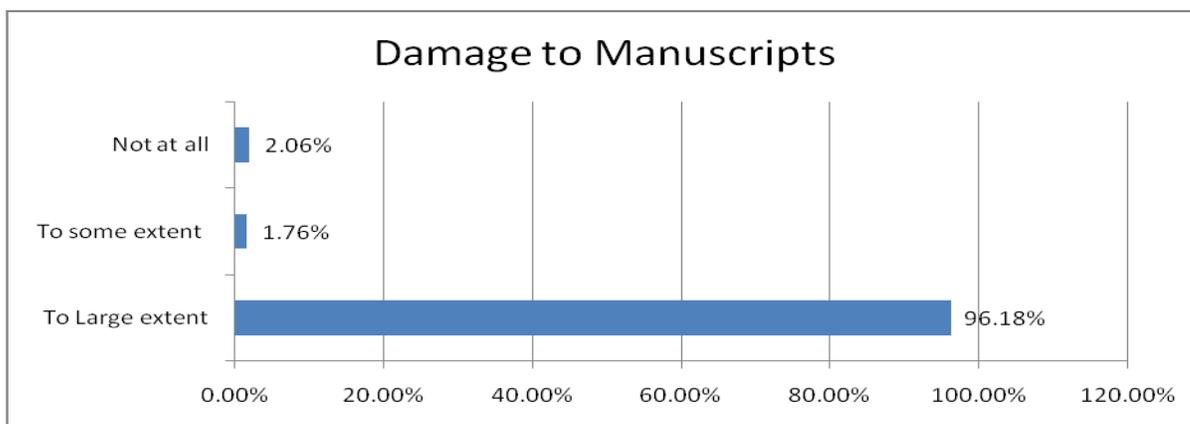
Chart 1: Custodians Awareness on Preservation



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

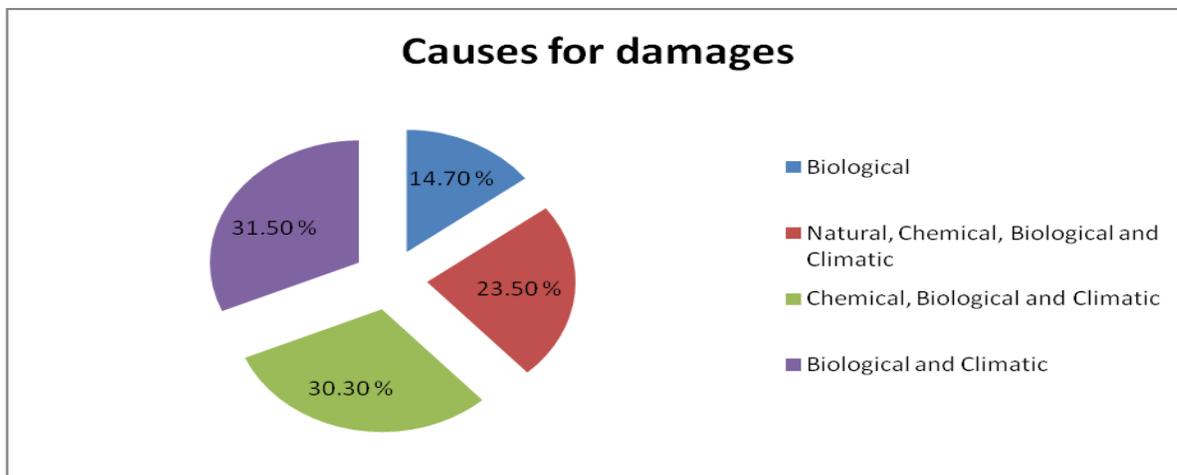
The second objective of the study was to find out the rate of damages to the manuscripts and what are the reasons for that.

Chart 2: Opinion on Damage to Manuscripts



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

Chart 3: Opinion on Causes for Damages



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.

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

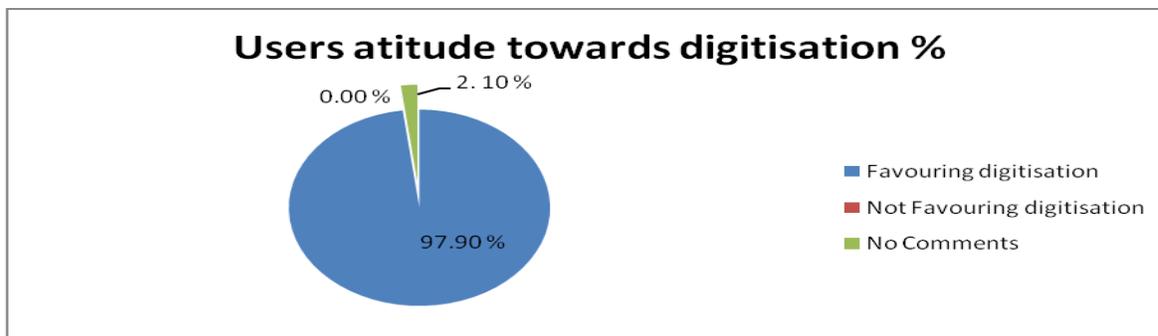
Table 5: Suggestions for Preserving Contents on Manuscripts

Option for safeguarding contents	Percentage	Cumulative percentage
Digitize the manuscripts	33.50	33.50 %
Digitize, save from further decayand copy the manuscripts.	21.50	55 %
Digitize and save from further decay	41.80	96.80 %
Digitize and copy the manuscripts	3.20	100 %

Suggestions for preserving the contents of manuscripts: Table 5 shows that the majority of the users chooses 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.

The 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 favour of digitization and a negligible portion expressed no comments.

Chart 4: Distribution by Favour and Not Favour.



Attitude towards digitization: Chart 4 shows that 333 users out of 340 were favoured 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 safeguard the contents of manuscripts at the same time it enhances the use of manuscripts.

Table: 6 Advantages of Digitalization

Advantages of Digitalization	Number	Percentage	Cumulative %
Preserving contents, easy access and retrieval, multi user access and saving money and time.	150	44.10	44.10%
Preserving contents, easy access and retrieval and multiuser access	95	27.90	72.00%
Preserving contents and easy access and retrieval.	61	18.00	90.00 %
Preserving contents and multiuser access.	34	10.00	100%

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

Table 7: Use Pattern of Digitised Version of Manuscripts

Use Pattern	Number	%	Cumulative Percentage
Yes, very easy to use	210	61.77	61.77%
Somewhat easy	42	12.35	74.12%
Not easily compare to palm leaves	88	25.88	100%

Use pattern of digitised versions of manuscripts: Table 7 above shows that 74.12 percentage of users are of opinion that a digitised version of manuscripts is easy to use, of which 61.77 percentage is in the group of very easy to use.

9. Findings

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

10. Suggestions

- Take all efforts to digitize the endangered documents;
- A central database has to be set up 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;
- The state government has to take steps in organizing the manuscript collection by enacting appropriate law.
- Manuscript collection has to be declared as national wealth and policies to be declared safeguarding manuscript.

11. 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 in immediate future. Safeguarding such documents is obviously become important also raise a 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 depending palm leaf 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.

12. References

- Chowdhury, G.G., Sudatta Chowdhury, (1999). Digital library research: major issues and trends, *Journal of Documentation*, Vol. 55 Iss: 4, pp.409 – 448
- Ed Fay Julianne Nyhan, (2015),"Webbs on the web: libraries, digital humanities and collaboration", *Library Review*, Vol. 64 Iss 1/2 pp.: <http://dx.doi.org/10.1108/LR-08-2014-0089>
- Jane Barton, (2005),"Digital libraries, virtual museums: same difference?", *Library Review*, Vol. 54 Iss 3 pp. 149 – 154: <http://dx.doi.org/10.1108/00242530510588908>
- Jyotsna Kamat,(2000), http://www.kamat.com/database/books/kareducation/palmleaf_texts.htm.
- Mohamed Sageer. T. K., Dr. Francis. A.T., (2014) Palm Leaves Manuscripts in Kerala and its Preservation: factors necessitating digital archiving, *International Journal of Scientific and Research Publications (IJSRP)*, 4:2., <http://www.ijsrp.org/researchpaper-0214.php?rp=P262323>
- Mohamed Sageer. T. K., Dr. Francis. A.T., (2014), Analysis of the palm leaves manuscripts collection for digital archiving: a case study of Sree Sankaracharya University of Sanskrit, Kalady. *International journal of library and information sciences (IJLIS)*, Vol. 3, Iss. 1, January - June (2014), pp. 90-98
- Sharma. R. K., Vishwanathan. K. R., (2001),"Digital libraries: development and challenges", *Library review*, Vol. 50 Iss 1 pp. 10 – 16: <http://dx.doi.org/10.1108/00242530110363190>
- Raman Nair, R., (2004), *Digital archiving of manuscripts and other heritage items for conservation and information retrieval*.
- Raman Nair, R., (2006), *Digitization of indigenous materials : problems and solutions in the Context of Kerala University.*, Library and Information Studies in the Digital Age. Ess Ess Publications, New Delhi (India), pp. 222-247.
- Ravindran Asari, K. Hussain, K. H. and Raman Nair, R., (2002), *Nitya Archives: Innovative blending of techniques for Selective Access to Information from Digitally Organized Text (SAIDOT)*, 2002. In *Information Management in e-Libraries (IMeL)*, Kharagpur (India), 26 -27, February 2002.
- Udaya Kumar D, Sreekumar, G.V and Athvankar, U. A., (2009), Traditional writing system in Southern India — Palm leaf manuscripts. *Design Thoughts.*.
- Val Hamilton, (2004),"Sustainability for digital libraries", *Library Review*, Vol. 53 Iss 8 pp. 392 – 395: <http://dx.doi.org/10.1108/00242530410556210>