"Evaluative Study of Manuscript Conservation and Digital Preservation Efforts by National Mission for Manuscripts (NaMaMi) and Its Partner Centers in Maharashtra"

Synopsis

For Award of Doctor of Philosophy
In the subject of

Library and Information Science

Under the faculty of

Interdisciplinary studies

By

Dr. Vijay Srinath Kanchi,
Librarian, MJ College, Jalgaon-425002
vskanchi@gmail.com
Mob:8999827060

Under the guidance of

Dr. Jagdish N Kulkarni
Librarian (CAS) and I/C Director,
Knowledge Resource Center,
Swami Ramanand Teerth Marathwada University, Nanded

Submitted to

Swami Ramanand Teerth Marathwada University, Nanded

December 2017
"Evaluative Study of Manuscript Conservation and Digital Preservation Efforts by National Mission for Manuscripts (NaMaMi) and Its Partner Centers in Maharashtra"

SYNOPSIS

Contents:

i) Introduction
ii) Statement of the Problem
iii) Explanation of the key concepts
iv) Review of Related Literature
v) Objectives of the study
vi) Hypotheses
vii) Research Methodology
viii) Significance of Study
ix) Scope and Limitations
x) Proposed work plan with Tentative Chapter scheme
xi) Year-wise plan of work and targets to be achieved
xii) Expected Outcome
xiii) References and Bibliography
"Evaluative Study of Manuscript Conservation and Digital Preservation Efforts by National Mission for Manuscripts (NaMaMi) and Its Partner Centers in Maharashtra"

1) Introduction

India has been known world over as the repository of one of the ancient most civilizations of the world. Four of the important religions of the world, Hinduism, Buddhism, Jainism and Sikhism, owe their origination to this great land. These religions have contributed to the rich heritage of ancient wisdom which was preserved for centuries in the form of manuscripts, palm leaf, copper plate, birch tree manuscripts and also as oral tradition. India in the ancient past has registered some of the greatest achievements in the world of science, art, literature, architecture, philosophy and other subjects. India was home for world acclaimed universities such as Nalanda, Taxashila, Vikramashila, where scholars from across the globe visited to gain knowledge and scholarship. It is recorded that when Bhaktiyar Khalji set fire to the Nalanda University so as to incinerate the knowledge and wisdom of the heretics. Even after repeated arson and looting that was heaped upon year after year to efface the ancient wisdom from the land by the marauding crowds several lakh manuscripts still survived in the temples, mutts and also protected by the individuals.

In fact, there is no dearth of such manuscripts in India. A survey conducted by the popular Newspaper Eenadu in 2001 in the erstwhile Andhra Pradesh, Maharashtra and Karnataka had revealed that several houses in each village still contain large collections of manuscripts which are transmitted from generation to generation and are kept in homes as household legacy. However, it is pathetic to note that a lot of such manuscripts still lie unattended bundled in the swathes and kept on attics and almirahs. There is an urgent need to locate and preserve this rich heritage from being lost forever.

The National Mission for Manuscripts an autonomous organization under the government of India was established in February 2003, by the Ministry of Tourism and Culture, Government of India. The Mission seeks to unearth and preserve the vast manuscript wealth of India. India possesses an estimate of ten million manuscripts, probably the
largest collection in the world. These cover a variety of themes, textures and aesthetics, scripts, languages, calligraphies, illuminations and illustration. The Mission has the mandate of identifying, documenting, conserving and making accessible the manuscript heritage of India.

NaMaMi is working towards fulfilling its motto, ‘conserving the past for the future’. It has emerged as a movement, undoubtedly the most popular and effective among all the heritage conservation initiatives in the country. NaMaMi has identified and partnered with several institutes and organizations in Maharashtra as Manuscript Resource Centers (MRC), Manuscript Conservation Centers (MCC), Manuscript Partner Centers (MPC) and Manuscript Conservation Partner Centers (MCPC). The list of partner centres in Maharashtra is listed below:

- Bhandarkar Oriental Research Institute, Deccan Gymkhana, Pune-411 037 (MRC, MCC & MCPC)
- Kavikulaguru Kalidasa Sanskrit University, Ramtek (MRC)
- Institute for Oriental Studies (Shiva Shakti), Thane (MRC)
- Anandashram Sansatha, Pune (MRC & MCPC)
- Barr. Balasaheb Khardekar Library, Shivaji University, Kolhapur (MRC & MPC)
- Shree Forbes Gujarati Sabha, 3rd Floor, Opposite Utpal Sanghavi School, Sant Gyaneshwar Marg, Juhu Vile Parle (West), Mumbai 400 049, Maharashtra (MPC, MRC and MCPC)
- Shri Samarth Vagdevta Mandir, Ramwadi, Malegaon Road, Dhule 424 001, Maharashtra (MPC, MRC and MCPC)
- Rajwade Samshodhan Madal, Dhule. (MRC and MCPC)
- Fergusson College, Pune (MRC and MCPC)
- Vedashastravidya Samvardhan Mandal, Karad, Distt. Satara, (MRC and MCPC)
- Prajna Pathshala, Wai, Distt. Satara (MRC and MCPC)

The researcher has also been able to collect manuscripts and documents totaling to about 300 numbers from various individuals and mutts. The researcher has been funded by the North Maharashtra University to carry out a research project titled "Locating, Conserving
and Digitization of Manuscripts found in Maharashtra" under the Vice Chancellor's Research Motivation Scheme since 2016. Recognizing the efforts taken by the researcher in this direction, the National Mission for Manuscripts, New Delhi has approved the proposal submitted by the researcher for establishment of a Nodal center for conservation and digitization of manuscripts in the college library. A Memorandum of Understanding in this direction will be signed within a month.

This evaluative study will help the researcher in establishing a manuscript conservation and digitization center in his college library by partnering with NaMaMi and effectively work toward cultural preservation of heritage manuscripts of India.

2) Statement of the Problem:

The statement of the problem under study is "Evaluative Study of Manuscript Conservation and Digital Preservation Efforts by National Mission for Manuscripts (NaMaMi) and Its Partner Centers in Maharashtra"

3) Explanation of the key concepts:

a. Conservation: According to www.archivists.org (2017) website, conservation refers to:

'1. The repair or stabilization of materials through chemical or physical treatment to ensure that they survive in their original form as long as possible. –
2. The profession devoted to the preservation of cultural property for the future through examination, documentation, treatment, and preventive care, supported by research and education.'

The website also mentions that:

'Conservation counters existing damage, as distinguished from preservation, which attempts to prevent damage. Conservation does not always eliminate evidence of damage; restoration includes techniques to return materials to their original appearances (which may include fabrication of missing pieces). - However, conservation is often used to include preservation activities'.

b. Digitization: Google dictionary (2017) defines digitization as 'The conversion of text, pictures, or sound into a digital form that can be processed by a computer'.
c. **Digital preservation:** Association for Library Collections and Technical Services (ALCTS) Preservation and Reformatting Section, a division of American Library Association conducted ALCTS Working Group on Defining Digital Preservation ALA Annual Conference, Washington, D.C., on June 24, 2007 which defined the digital preservation as follows:

"Digital preservation combines policies, strategies and actions to ensure access to reformatted and born digital content regardless of the challenges of media failure and technological change. The goal of digital preservation is the accurate rendering of authenticated content over time".

d. **Manuscripts:** Google dictionary (2017) defines manuscripts as:

'a book, document, or piece of music written by hand rather than typed or printed'.

e. **National Mission for Manuscripts:**

The National Mission for Manuscripts was established in February 2003, by the Ministry of Tourism and Culture, Government of India, that seeks to unearth and preserve the vast manuscript wealth of India. (namami, 2017).

f. **Partner Centers:**

An institution or organization partnering with NaMaMi in the conservation and digitization of manuscripts. There are 11 such partner centres as of now of NaMaMi in Maharashtra as listed above.

g. **Maharashtra:**

Maharashtra (abbr. MH) is a state in the western region of India and is India's second-most populous state and third-largest state by area. Spread over 307,713 km2 (118,809 sq mi), it is bordered by the Arabian Sea to the west and the Indian states of Karnataka, Telangana, Goa, Gujarat, Chhattisgarh, Madhya Pradesh and the Union territory of Dadra and Nagar Haveli. (Wikipedia, 2017: Maharashtra).
h. **Evaluative study:**

Socialresearchmethods.net (2017) provides to definitions of Evaluation as:

1. 'the systematic assessment of the worth or merit of some object'

2. 'the systematic acquisition and assessment of information to provide useful feedback about some object'

4) **Review of Related Literature:**

The researcher searched literature related to the topic in thesis database of the INFLIBNET, Shodhganga repository, various websites, books, journals, journal research papers. This exhaustive search helped researcher to know previous allied work on the topic. The reviews are as under,

1. Panage (2003) studied ‘Conservation and Preservation of Library Materials with Special Reference to Digitization of Rare Materials’ for his doctoral research at University of Pune. He studied the conservation and digitization techniques and procedures and discussed digital library models.

2. Seifi (2011) studied ‘Digitization and Digital Preservation of the Heritage Collection in Select Libraries in India and Iran: a Comparative Study’ for her doctoral research work at University of Mysore. She studied Studies on Digitization and Digital Preservation of Cultural Heritage practices adopted in India, Iran, other Asian countries, Africa, Europe and New Zealand and Australia and carried out comparative study of sixteen libraries involved in digitization and digital preservation activities in India and Iran.

3. In the preface to his much acclaimed book ‘Conservation and Restoration of Archive Materials’, Kathpalia (1973) says ‘The historical material held in archives forms part of the cultural heritage of mankind, and the conservation of such holdings is of vital
importance'. Giving a list of media on which human knowledge has been enshrined since time immemorial, he says 'from earliest times up to the present day, the substances used as vehicles for writing have been numerous. Whatever was convenient and available was used for the purpose-papyrus, cloth, wood, palm leaves, parchment, vellum and paper, until the latter replaced all the other materials'.

4. Katriina Similä, Project Manager, ICCROM, Roma, Italy, in her research paper titled 'CollAsia 2010: Conserving Cultural Heritage Collections in Southeast Asia' says that 'though there are clearly a number of common challenges shared by countries at the regional and/or sub-regional level when it comes to conserving museum, library and archive collections'. Recognizing the dramatic growth in the museum field in Southeast Asia, she lists out the challenges faced by the centers working in the field of manuscript conserving and archiving:

• Collections are continuously expanding in size and variety;
• Lack of sufficient training and professional development for staff of heritage institutions;
• No systematic documentation of traditional skills and techniques;
• Insufficient knowledge-sharing and professional networking;
• Limited and sporadic collaboration at the regional level;
• Low levels of public awareness and participation.

5. Prof. Dipti Tripathi, Director National Mission for Manuscripts (2013) states that: 'India has got, at a reasonable estimate, around 10 million manuscripts which is perhaps the single largest number in any country in the world. This number does not include Indian manuscripts in the custody of institutions outside India. The manuscripts heritage of this country represents the cumulative knowledge, experience and practices of the people for almost 5000 years. The present available manuscript wealth is only a fraction of what must have been there once upon a time. A major portion of this heritage has been lost due to ravages of time, natural calamities and destruction by foreign invaders. Harsh tropical weather has also contributed to the destruction of this national heritage'.
6. IFLA (2014) Rare Book and Manuscripts Section published the 'Guidelines for Planning the Digitization of Rare Book and Manuscript Collections' in 2014. It informs that 'Copyrighted materials can also be digitized under adjudicated regulations and agreements'. It also points out that 'a digitized object can be considered a new edition in itself. As a result, the availability and terms of use for every digitized object and collection should be clearly stated to users'.

7. Gaur (2009) explains the need for digitization of manuscripts. According to him, digitization helps in faster access, improve services, helps in archiving and protect the originality of the object/document etc. Reduce the handling and use of fragile or heavily used original material and create a "back up" copy for endangered material such as brittle books or documents, enables resource sharing and more importantly contributes in the preservation of this rich heritage. He points out that 'In one of the surveys made by Dr. S. C. Biswas and Mr. M. K. Prajapati on behalf of INTACH during 1988-90 and on the basis of scrutiny of about 1100 printed catalogues and hand lists belonging to 70 libraries, institutions and individuals, the following estimates were made:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total number of manuscripts in India</td>
<td>5,000,000</td>
</tr>
<tr>
<td>2</td>
<td>Indian manuscripts available in European countries</td>
<td>60,000</td>
</tr>
<tr>
<td>3</td>
<td>Indian manuscripts in South Asia and Asian Countries</td>
<td>150,000</td>
</tr>
<tr>
<td>4</td>
<td>Number of manuscripts recorded in catalogues</td>
<td>1,000,000</td>
</tr>
<tr>
<td>5</td>
<td>Percentage of manuscripts languages wise</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Sanskrit</td>
<td>67%</td>
</tr>
<tr>
<td></td>
<td>b. Other Indian Languages</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>c. Arabic/Persian/Tibetan</td>
<td>8%</td>
</tr>
</tbody>
</table>

(Source: Project Document, NMM, 2003)

8. The National Mission for Manuscripts published 'Basic Minimum Standards for Conservation of Manuscripts'. Explaining the significance of manuscript conservation the
booklet states that 'Many manuscripts contain references to events of the past. At the same time, those manuscripts which have survived for centuries, themselves have significance of antiquity. Many of the manuscripts have been written by eminent personalities of their times, or contain their thoughts. The material of the manuscripts, the methods and techniques with which the leaf, the bark or the paper was processed and the manners in which the inks were prepared also have great historical significance as most of these practices have fallen to disuse and the manuscripts are the only unique surviving examples of these practices'. It also outlined several guidelines and minimum standards for conservation of manuscripts.

9. Efforts towards the digitization of manuscripts in Maharashtra are picking up in the recent times. In the year 2016, the Maharashtra government has flagged off a programme to digitize over 1,00,000 books and 2,500 manuscripts, some of which date back to the 12th century, at the 211-year-old Asiatic Society library in Mumbai. (Hingorani, 2016). Times of India, based on the data from the National Mission for Manuscripts reports that 'close to 40,000 manuscripts from the period 1600 to 1900 AD have been digitized in Pune, and around 1.45 lakh have been documented in the state (Madani, 2013).

The above discussion clearly underscores the significance and importance of conservation and digitization of manuscripts.

5) Objectives of the study:

1. To study the present status of conservation and preservation of Indian cultural heritage in general and efforts of National Mission for Manuscripts (NaMaMi) in particular.
2. To take an overview of availability of manuscripts and efforts taken in preservation of heritage collections (Manuscripts) in Maharashtra.
3. To identify the type of collection that is being conversed and digitized in NaMaMi centers in Maharashtra.
4. To ascertain the availability of infrastructure (Building, furniture, equipments, Human resources and budget) for the digitization and digital preservation of heritage collections in NaMaMi centers in Maharashtra.

5. To examine traditional procedures, practices, techniques, methods, mechanism, strategies and policy in searching, collecting, selecting, acquiring, processing, storing, conversing, preserving and disseminating heritage collections (Manuscripts) in NaMaMi centers in Maharashtra.

6. To study modern technology, procedures, practices, techniques, methods, mechanism, strategies and policy in searching, collecting, selecting, acquiring, processing, storing, conversing, digitizing, preserving and retrieving (disseminating) heritage collections (Manuscripts) in NaMaMi centers in Maharashtra.

7. To review methods adopted in digitization (in house or outsourcing) and application of hardware, software, metadata standards in digitization and digital preservation of heritage collections in NaMaMi centers in Maharashtra.

8. To understand the challenges for digitization and digital preservation of heritage collections faced by NaMaMi in general and partner centers particularly in Maharashtra.

9. To suggest a policy, framework and model for digitization and digital preservation of heritage collections so as to facilitate easy access and better usage of these materials.

6) Hypotheses:

1. Various partner centers of NaMaMi in Maharashtra do not differ significantly in the type of their manuscript collections.

2. Various partner centers of NaMaMi in Maharashtra do not differ significantly in strategies/policies used for digital preservation.

3. Various partner centers of NaMaMi in Maharashtra do not differ significantly in metadata standards used for digital preservation.

4. Various partner centers of NaMaMi in Maharashtra have adequate budget for digitization and digital preservation.
5. Various partner centers of NaMaMi in Maharashtra are aware of the **traditional methods** for preservation of manuscripts and deploy them as when needed.

6. Various partner centers of NaMaMi in Maharashtra adopt **modern technology and methods** for preservation of manuscripts.

7. Various partner centers of NaMaMi in Maharashtra do not differ significantly in the **storage procedures** for digitization and digital preservation.

8. Various partner centers of NaMaMi in Maharashtra have similar **constraints and challenges** in respect of locating, conserving and digital preservation of manuscripts.

9. Various partner centers of NaMaMi in Maharashtra have well devised **future plans and models** for conservation and digital preservation of manuscripts.

7) **Research Methodology:**

**a) Research Method:** The nature of the present study requires onsite observation and collection of data from NaMaMi partnering centres in Maharashtra and devise a model plan for a conservation and digital preservation centre for manuscripts. Therefore policies, standards and best practices adopted by these institutions are essential to frame a model conservation and digital preservation centre for manuscripts. Hence, the most appropriate method for this study would be field study coupled with descriptive method for developing a conceptual framework.

**b) Research Techniques:** The survey technique will be adopted for present study.

**c) Tools of data collection:** The investigator wishes to personally visit the NaMaMi partner centers in Maharashtra for collecting data and study various aspects of conservation and digitization including collection of heritage resources and infrastructure and technical manpower availability for digitization work. The data will be collected through questionnaires, and direct interaction with the Heads of the partner centers, interviews and observation. Data will also be collected by means of surveying various official documents published by NaMaMi and its partner centers such as annuals reports, procedure guidelines, and brochures, Websites, etc.

**d) Style manual employed:** The research report will be documented using APA style.
8) **Significance of Study:** The cultural heritage of any country is its backbone and preservation of ancient wisdom and knowledge dispersed in the form of manuscripts is of vital importance for any country. The identity, self esteem and pride of the nation heavily rests on its ancient legacy which it needs to carry down to the posterity.

   **a. International Status:** The importance of conservation and digital preservation of manuscripts for posterity has been recognized world over thanks to the efforts of UNESCO, IFLA and other organizations. These organizations have established standards and procedures for conservation and digitization of manuscripts. Countries rich in ancient cultures such as Greece, Egypt, Middle East, China that have known collection of ancient manuscripts have been working hard in preserving their cultural heritage to their posterity by actively engaging in the manuscript conservation and digitization.

   **b. National Status:** The efforts to conserve national heritage was started with the establishment of Indira Gandhi National Centre for Arts (INGCA) by the Government of India which made appreciable efforts in identifying, locating cultural artifacts and conserving them. INGCA also played a pivotal role in establishing regional centers in various states to help conserve the fast eroding cultural legacy of India. However, thanks to the establishment of National Mission for Manuscripts (NaMaMi) in 2003 by the Government of India, this effort received a fresh impetus. NaMaMi is actively engaged in partnering with various regional institutions and organization in locating, procuring, conserving and digitizing the cultural heritage of India that is found in the form of manuscripts.

   **c. Regional Status:** Maharashtra has been relatively lagging behind in the manuscript locating, conserving and digitizing efforts as compared to its counterparts in North, East and South India. Maharashtra state has about 12 NaMaMi partner centers and about 25 other centers involved in manuscript conservation and digitization activities.

9) **Scope and Limitations:**

The scope of the study is to carry out evaluative study of conservation and digital preservation activities carried out by NaMaMi and its partner centers in Maharashtra. The research is limited to (a) the NaMaMi centers in Maharashtra existing during the period
of study and (b) manuscript conservation and digitization only and does not cover other culturally significant material numismatics and other artifacts.

10) Proposed work plan with Tentative Chapter scheme

Chapter – I Introduction

This chapter deals with Preamble, Proposed research, Definitional analysis, Need, Objectives, Hypothesis, Scope and Limitations, Methodology and Conspectus etc.

Chapter - II Review of Literature

This chapter devotes to examining the review of best practices in preserving and digitization of manuscripts across the world.

Chapter - III Conservation and Digitization of Manuscripts

This chapter deliberates on procedures, practices, techniques, methods, mechanism, strategies and policy adopted in searching, collecting, selecting, acquiring, processing, storing, conversing, preserving and disseminating heritage collections (Manuscripts) by the NaMaMi centers in Maharashtra.

Chapter - IV NaMaMi and Manuscript preservation centers in Maharashtra

This chapter examines the conservation and digitization efforts carried out by various NaMaMi partner centers in Maharashtra and various constraints and challenges faced by them in locating, conserving and digitizing manuscripts. The standards as enunciated by IFLA, UNESCO and NaMaMi for conservation and digitization vis-à-vis the methods, practices and procedures adopted by various partner centers, will be closely studied. The traditional methods of conservation, their effectiveness, and the modern technology used will be studied. The metadata standards for digitized content will also be studied.

Chapter – V Analysis and Interpretation of Data: Conservation, Digitization and Digital Preservation in NaMaMi partner centers in Maharashtra.

The data collected through direct observation, questionnaires and personal interviews will be conceptually analyzed, tabulated and described. Further the tabulated data will be statistically analyzed using appropriate statistical methods and use of software such as
SPSS. The data analysis and interpretation will be compared with the hypotheses of the research to validate or invalidate the hypotheses.

Chapter - VI Summary of Findings, Recommendations and Conclusion

The finding and recommendations will be presented in this chapter.

Chapter – VII Policy framework and Model plan

This chapter devises and suggests a policy framework and model plan for establishment of conservation and digital preservation centers for manuscripts. It envisages action plan for effectively locating, collecting, conserving, and digital preserving the manuscripts.

11) Year-wise plan of work and targets to be achieved:

The researcher proposes to carry out his research as per the following time schedule:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Period</th>
<th>Official process</th>
<th>Proposed Research Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>RAC date to</td>
<td>Synopsis Submission and topic finalization through RRC, joining report, application for eligibility</td>
<td>Synopsis preparation &amp; Submission, Study of Style Manual</td>
</tr>
<tr>
<td></td>
<td>31/12/2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>01/01/2018 to</td>
<td>First Progress Report Submission</td>
<td>Review of related literature to study the conservation and digitization standards recommended by international and national organizations such as IFLA, UNESCO, NaMaMi etc.</td>
</tr>
<tr>
<td></td>
<td>30/06/2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>01/07/2018 to</td>
<td>Second Progress Report Submission</td>
<td>Preparation and standardization of Questionnaire</td>
</tr>
<tr>
<td></td>
<td>31/12/2018</td>
<td>Course work completion</td>
<td>Research publication in UGC approved professional journal</td>
</tr>
<tr>
<td>4.</td>
<td>01/01/2019 to</td>
<td>Third Progress Report Submission</td>
<td>Visit to various NaMaMi partner centers, Establishment of NaMaMi manuscript conservation and digitization center in the College</td>
</tr>
<tr>
<td></td>
<td>30/06/2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dates</td>
<td>Activities</td>
<td>Library</td>
</tr>
<tr>
<td>---</td>
<td>------------------------</td>
<td>-----------------------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>01/07/2019 to 31/12/2019</td>
<td>Fourth Progress Report Submission</td>
<td>Data Collection</td>
</tr>
<tr>
<td>6</td>
<td>01/01/2020 to 30/06/2020</td>
<td>Fifth Progress Report Submission</td>
<td>Data Analysis, Research Publications, Research publication in UGC approved professional journal</td>
</tr>
<tr>
<td>7</td>
<td>01/07/2020 to 31/12/2020</td>
<td>Pre Ph. D. Synopsis submission, Pre Ph. D Viva Voce, Plagiarism Checking, CD Submission, Sixth Progress Report Submission</td>
<td>Report writing and final submission of thesis</td>
</tr>
<tr>
<td>8</td>
<td>01/01/2021 to 30/06/2021</td>
<td>Viva-Voce and award of Ph. D.</td>
<td></td>
</tr>
</tbody>
</table>

12) **Expected Outcome:**

The research is likely to identify various **best practices** adopted by the NaMaMi partner centers in Maharashtra in conserving and digital preservation of Manuscripts. Further it will also help in identifying various **challenges and constraints** faced by these partner centers in locating, procuring, conserving and digitizing the manuscripts. This research will throw light on **possible gaps** in human effort, technology, expertise etc., in manuscript conservation and digitization for posterity. This research will also help in **standardizing the practices and procedures** adopted in various NaMaMi centers and streamline their activities. It will also help in developing close connectivity among the partner centers and share their expertise, resources, etc., for mutual benefit.
13) References and Bibliography


5. Google dictionary (2017), digitization meaning, https://www.google.co.in/search? Source=hp&ei=4XsnWsnBF8b38QXii6qwAw&q= digitization+meaning&oq=digitization+meaning&gs_l=psy-ab.1.0.35i39k1j0j0i131i67k1j0j0i131k1j0i67k1j0i131k1j0i67k1j0i131k1j0i67k1j0i131k1j0i67k1j0i131k1j0i67k1j0i131k1j0i67k1j0i131k1j0i67k1j0i131k1j0i67k1j0i131k1j0i67k1j0i131k1j0i67k1j0i searched for on 06-12-2017.

6. Google dictionary (2017), manuscripts meaning, https://www.google.co.in/search?ei=6XsnWsGZGYPW8QX9wZDQCQ&q=manuscript+meaning&oq=manuscript+meaning&gs_l=psy-ab.3..0i67k1j0l2j0i7i30k1j0j0i7i30k1l2j0j0i7i30k1l2j0j0i7i30k1l2j0j0i7i30k1l2j0j0i7i30k1l2j0j0i7i30k1l2j0j0i7i30k1l2j0j0i7i30k1l2j0j searched for on 06-12-2017.


9. IFLA Rare Book and Manuscripts Section (2014), Guidelines for Planning the Digitization of Rare Book and Manuscript Collections, Netherlands: International Federation of Library Associations and Institutions.


