Digitization Technology in Preservation of Indian Cultural heritage

DR. TRUPTI UPADHYAY
Asst. Prof. Soorajba College of Education, Kadi

Abstract:
India is a Country of vast cultural heritage resources both tangible and intangible. With an estimated 5 million ancient manuscripts, India is the largest repository of manuscripts. More specific indications of Vedic science will be given later in the technology section. Keeping with the change from the pre-modern era, technology has detached itself from art and has become a part of science. It is science today that leads technology in modern India as in other contemporary cultures. Besides, a large amount of other cultural resources are available in various archives and museums in India. The preservation of these resources was never a priority subject, so large resources have either vanished or have gone out of India. An approach on preservation of its physical resource was never discussed. In similar way, the concepts of digital preservation have been introduced in India very lately, i.e. sometime in year 2008 only. Digital preservation is a process of preserving both digitized and born-digital contents to a distant future in reusable condition for access by its users. It involves a set of systematic guidelines, processes, strategies, technology and approaches. The technological obsolescence, shorter and uncertain life-period for current storage media, information glut, and internet revolution are some of the major factors which have made preservation of digital information more complex and challenging.

1. Introduction

To address the question of technology and its place in Indian culture, we first need to address the very basic questions "What is culture?" and "What is Indian culture?" The answer to the first may not be as simple as it appears. Even Webster's Dictionary offers many choices. "Civilizing tradition, folklore, instruction, law, custom, knowledge, art, science, education, mores," The true definition of culture most likely lies in a combination of each of these possibilities: a mixture of the mental, physical, intellectual and creative aspects of a society. As with any mixture, this view bases itself in movement- the interaction of these collective parts to create a nebulous whole called " culture". Coming to Indian culture, it is only after we have found out the features of Indian culture that make it Indian and distinguish it from other non-Indian culture, can we aim to understand the role that technology has in our ideas, conceptions, qualities, relationships and courtesies – the web of beliefs that we call our culture. We desire for the future responsibility in the protection and preservation of cultural heritage as a continuation of civilization for all the citizens of the world to explore. We have to be fair to the future generations. So digitization converts materials from formats that can be read by people to a format that can read only by machines (digital), such as read-only scanner digital cameras, planetary cameras and a number of other devices which can be used to digitize cultural heritage materials.

2. Basis of Indian Culture

The foremost point to discuss when talking about Indian culture is the importance of the Vedas behind our original thinking and way of life. Long before we became influenced and possibly polluted by other cultures, our basis were the Vedas. Indeed, if one studies the Vedas and the knowledge given there in, one is spell bound by the timeless and multi-dimensional philosophy of the Vedic literature. It clearly indicates that people at that time were certainly

superior to us in their intellectual levels and our feeling of superiority may not be well-founded.

3. Technology in Pre-Modern India

"Many of the advances in the science and technology that we consider today to have been made in Europe were in fact made in India centuries ago."

In the Ramayana, we have the Pushpak Vimana, which clearly establishes the existence of helicopters aeroplanes. what better example exists of a laser-guided missile than the shakti with Karma killed Ghatokacha in the Mahabharata? And the instant beaming of a living body across vast distances that you see in the futuristic star trek was routinely practiced by our divas'. However, this is only one side of the coin. There also exist Vedic works and evidences, which show that India at around this time was as advanced if not more than all the contemporary civilizations of the world. All this was not done with bare hands, technology used cannot even be considered as that of handicraft. The techniques used in making sugar, glass, jewellery, metal sheets, oils, etc., technology had indeed come a long way.

4. Post Independence-The Modern Era

After Independence, India has had a lot to struggle with other than how to get on to the technology bandwagon .Nehru, in his effort to bring India at par with the other technology advanced nations of the world, was the first to start a process of setting up institutions and industries which had an important role to play in increasing the prominence of technology in our daily lives. the five-year plans had quite a lot to say about how to advance in this field, and successive governments have placed technology advance high in their agendas. Indian software products are valued over the world and are competing with global giants like Microsoft. And in keeping with the change from the pre-modern era, technology has detached itself from art and has become a part of science. It is science today that leads technology in modern India as in other contemporary cultures. Today technology only then we will be able to say that technology has truly become a positive aspect of our culture, and India has become an advanced nation in the true sense.

5. Digital Preservation

Generally speaking the digital preservation is about safeguarding and maintaining a digital collection for long term into the foreseeable and distant future. The sustainability and accessibility of the digital collection is the main objective of scheme of digital preservation. The preservation of digital collection is must as without appropriate digital preservation method a digital collection may become useless. The main goal of a digital preservation process is to keep digital information in readable and usable condition.

The primary, and usually the most obvious, advantage of digitization is that it enables greater access to collections of all types. All manner of materials can be digitized and delivered in electronic argues that libraries, museums and other cultural institutions various across institutions argues that libraries, museums and other cultural institutions are committing increasing amounts of time and money to digitization in order to improve access to their collections. A similar concern was shown by Mulrenin and Geser(2001) when they observed that cultural institutions should place high priority on their human resources development, set measures to speed up the transfer cum integration of knowledge into professional training and develop special courses for key areas such as digital management and preservation. Jones (2001) indentified the benefits of digital access for collections as follows:

- Easy to be viewed from anywhere, at any time of the day.
- Can be readily printed from the web.
- Viewers can find what they are looking for quickly and independently.
- Save staff reference time by answering frequently asked questions on the web.
- Electronically enhanced images can be viewed with greater legibility.
- Increased use of collections and facilitated learning and scholarship.

6. Principles of preservations as applied to digital preservation

The basis principles of preservation that being practiced for preservation of analogue media is also applicable to preservation in the digital world.

- Longitivity
- Selection
- Quality
- Integrity
- Access
- Important of Digitization Technology
- Faster Access
- To Improve services
- Archiving

To 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

- Resource sharing
- Preservation
- Digital Preservation policy and strategy
- Resource –manpower, technology, funding, collaborative partnership
- Collections
- Document types and formats
- Digitization strategies
- Requirements
- Collection Development
- Digital Archiving
- Web Archiving
- Content management system/ Data Asset management system
- Standards
- Training and work flow
- Storage-short and long term
- Portable media- CD/DVD
- Non portable media-PC Hard Drives
- Care and handling
- Storage-climatic condition

7. Conclusion

While the field of culture is obviously not the field of information, the achievements of the information age are now determining the parameters of culture. India must today show exemplary responsibility where its own cultural heritage is concerned, and with regards to its present day and future cultural life. We desire for the future responsibility in the protection and preservation of cultural heritage as a continuation of civilization for all the citizens of the world to explore. We have to be fair to the future generations. Based on the basic principles and mission of our work, we have been carrying out the digital protection of cultural heritage for more than years.

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