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Preservation, Modernization of Sanskrit and the ICT

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Abstract

In the era of Science and Information Technology every aspects of education is inter-related to each other. Sanskrit as one of the most ancient branch of knowledge has itself many things from Vedas to Puranās and from Auyrveda to Arthasasthra, Kāmasasthra to Nitisasthra, it covers all over the aspects which is relevant to society at utmost level. It has preserved the world through its inscription and manuscripts to inculcate new things and germinate new science & technology through its study. It is said that the Vimānasasthra i.e the information on aero-space technology was there in India before many thousand years ago even in the age of Mahabharata. The technology of rock cutting and monuments are example of finest architecture that prevails in ancient India. Many such monuments, Kings palace and temples are found in whole South-East Asia is example of finest engineering technology of India. Now making such monuments have definite schools and design and curriculum but in modern time partly we lost it.

So it is important to search our ancient technology, engineering, medical science, architecture, social science and many more aspects which is hidden in Sanskrit and it is our duty to preserve our ancient Knowledge for future generation. In that case Information and Communication Technology (ICT) can help us in preservation of our ancient text and knowledge. In the era of globalization if we want Sanskrit to take at a height to the global level than its need a joint venture with Information and communication technology to rebuilt its structure which can help it to preserve and modernize for our society.

Keywords: ICT, Communication, NMM, Sanskrit, Manuscript.

Introduction: Information and communication technologies are broadly defined as for the purposes of this primer, as a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information." These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony. The information and communication technology (ICT) sector has experienced explosive growth over the past two decades. These are over 4.5 billion mobile phone subscribers globally, the internet has grown to include more than a billion people and high-speed broad band networks reach more than 400 million subscribers. In short, ICT now cover every aspect social, political and economic relationship. The growing number of people connected to broadband networks are consuming, sharing and creating new multi-

media content and applications. And they are doing this on handheld and portable devices that are less costly and do more than before.

In the 21st century Information and Communication Technology has become important part of our global knowledge. With the extent of digitalization traditional knowledge can be transformed into modern ways of e-learning, distance learning, program based learning and many more. Every Society is knowledge based society; in every aspects of life we need knowledge. According to Knowledge Commission (2006), India is ahead because of its knowledge based services and intellectual property. In our ancient past Indian society has lots of knowledge in *Yoga*, *Ayurveda*, Martial Arts, Fine Arts, Technology of Warfare. The fact is that we have to preserve our ancient technologies which will help us to find new dimension of study in science and technologies. Today it's become important to have skill based society and if we conserve knowledge properly we can make a skill base society. So, it is knowledge which works in the root of all science.

Today the use of Information and Communication Technology in classroom is encouraged by one and all. On one hand the government is allocating funds for proper planning and implementation of the use of ICT, and on the other hand the stakeholders, mainly the teachers and the students at the institutional level, whether they be universities, colleges or schools, are eager to explore this new technique. Using models, maps, charts and other teaching aids is not uncommon at least at school level. However, utilizing the latest technology in a meaningful way to get the desired result certainly needs a careful study of the pros and cons before implementing it on a large scale. For, it is not as simple as office automation, where one simply does digitalize the records, and use computers in place of pen and paper--a transition from man to machine.

Why do we need to preserve Sanskrit: Sanskrit is one of the most prominent languages which serving us from many thousand years. It is regarded as mother of all languages. Many words are taken from Sanskrit into different languages of the world. India is love and respected in the world at a large because it is the land possessing a long and honored intellectual, moral and spiritual heritage, which is preserved in Sanskrit literature. The Sanskrit language has a philological significance in as much as most of the Indian languages are derived from it. Article 35 of the Constitution of India mentioned that the vocabulary of national language, whenever necessary or desirable is to be drawn primarily from Sanskrit. "The Modern Aryan languages were all born in the lap of Sanskrit; and so for the Dravidian languages, ever since their earliest literary use they have been nurtured by Sanskrit. Even in case of Tamil……it is fully within the orbit of Sanskrit." (Report of Sanskrit Commmission, 1956. P. 85)

When we compared with the achievements of the ancient scholars of India in various fields of science are such that every Indian should proud of. Aryabhatta's *Aryasidhanta* (476 A.D) is treated most authoritative work on Astronomy. Bhaskaracharya's *Sidhantasiromani* (1150 A.D) clearly shows that he was acquainted with the facts that the earth is round and that the earth revolves round the sun, (भपञ्जरः स्थिरो भूरेवावृत्यावृत्यादयास्तमयौ

कल्पयति नक्षत्रग्रहानाम्) centuries before the Caparnicas (1544) and Galileo (1564). Decimal notation was known to Aryabhatta as early as 476 A.D. The *Arthasasthra* of *Chanakya*, the works on aritecheture and the contribution of Charaka to the science of medicine and *Sushruta* to surgery has been universally acknowledged. The Sanskrit has preserved hundreds of books on morality, ethics and preaching high values. The *Rāmayana* and *Mahābharata* are greatest example of preaching high morals and ethics. Owing to these contributions which Sanskrit has made to various fields of knowledge we should naturally expect that there should be no opposition to the cause of resuscitating Sanskrit. Almost everyone intuitively feels interested in Sanskrit because of its vast area. Sanskrit is the life breath of every Indian. Everyone is conscious of the fact that whatever is best and valuable that a language can contribute to the healthy development of a nation which is embodied in Sanskrit. So, it is very important to preserve our rich reservoir of social, scientific, economical and moral values of past which is hidden in Sanskrit and it is our duty of inculcate new ideas with the help our past knowledge to create bright future.

Role of ICT in Preservation and modernization of Sanskrit: Information and Communication Technology (ICT) can plays big role in case of preservation and access of Sanskrit India. Today is the age of Information Technology, and global world is reached in the hand of people with help of telecommunication technology and computer technology. In era of digitalization, every subject is going towards the use of technology than why not Sanskrit, when Sanskrit has so many glorious information which is still unrevealed to the world. 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 and found that there are near about 5,000,000 manuscripts are available in the world taken India and abroad and out of them 67% is in Sanskrit language i.e. 3,350,000 manuscripts are available in Sanskrit (Project Document, NMM, 2003). Regarding the manuscripts, there are so many Manuscripts available regarding Indian *Vastusasthra, Kalasasthra* and *Silpasastra.* The *Kasyapa Silpasastra*, *Alankara Sastra*, *Paka Vijnana* and *Vastu Vidya* are few example of India's finest description on temple making, house building and rock cutting and cooking.

Though time passing we have lost many things from our ancient past. Even if we talk about *Veda,* Some branches of Veda's are lost nowadays. Moving from *Veda* towards *Vedic Mathematics'* which is based on the sixteen sutras of *Aatharvaveda* is the most valuable treasure house to Indian *Mathematics*. Regarding *Vedic Mathematics*, great scholar Jagadguru Swami Sri Bharati Krishna Tirthaji Maharaja wrote sixteen books (1911-1918) based on the Sixteen Sutras but nowadays these books are lost. So, in the present time when computer technology can help us to preserve our ancient knowledge than why should not we use the advantage of computer technology to preserve that can help in modernization of Sanskrit. Furthermore in era of globalization the knowledge of Sanskrit can be explored to global people with the help of Information and Communication Technology.

India has the oldest and the largest collection of manuscripts. Various scholars have documented the preservation of these ancient manuscript collections, including indigenous methods of preserving palm leaf manuscripts like wrapping, applying extracts of natural

products and other chemical treatments. Studies have also been conducted on the digitization of these manuscripts for passing on their wealth of wisdom to future generations.

While efforts have been taken to digitize these endangered documents and prevent deterioration due to factors such as biological, chemical and climatic conditions, digital archiving has not been centralized to enable the present generation of digital citizens of the world (also known as 'Millennia's') to benefit. The life of a palm leaf manuscript is far longer than a modern-day device like CD or microfilm. The increasing popularity of printed books has revitalized the interest for collecting and preserving of manuscripts in India. The Government of India has made consolidated efforts in preservation and providing access to manuscripts through many Research Centres across India.

Present Day Preservation Status of Manuscripts: The preservation and conservation of manuscript is essential nowadays. Manuscripts continued to be copied until the 19th century but declined after the invention of paper. On 14 February 2007, the National Mission for Manuscripts (NMM) launched Kritisampada, the National Database of Manuscripts that contains information about over a million Indian manuscripts

The National Mission for Manuscripts works with the help of 57 Manuscript Resource Centres across the country. These include well-established institutes, museums, libraries, universities and non-government organisations that act as the Mission's coordinating agency in their respective regions. They are primarily responsible for surveying and documenting every manuscript in their area. The Mission liaises with them for awareness campaigns and outreach activities such as lectures, school theatre programme and training workshops.

The 34 Manuscript Conservation Centres consists of a team of trained conservators with a laboratory equipped to undertake manuscript conservation. They also provide technical know-how on the preventive and curative conservation of manuscripts throughout the country. Various outreach programs are conducted to promote knowledge about conservation and the skill-sets of the conservators are regularly updated with workshops and training sessions.

The 42 Manuscript Partner Centres identified by NMM consist of certain prominent institutions with large holdings of manuscripts for collaboration with the Mission and they are required to document and catalogue their own collections. The third initiative by NMM is the 300 Manuscript Conservation Partner Centres with which the Mission collaborates to advice on storage and maintenance of their collections in a scientific manner.

Following are the few steps taken care of to preserve and modernize Sanskrit with the help of ICT.

i. With the help of Information and Communication Technology books can be digitalized to preserve the knowledge. The digital copy proves to be handy to provide efficient access. Therefore same can be followed to ensure the preservation and access to

manuscripts. The techniques and devises like preventive and curative treatment of original manuscripts and micro filming and digitations are keen to restore our past knowledge.

ii. We can use infra-ray technology and scanning to restore the palm leaf and burja patra manuscripts. Moreover this technology will also helpful in case of copper plates, rock surfaces, stone slabs, pillars, walls of temples or shrines and even bricks.

iii. Computer technology can help us to develop catalogues. Through computer we can easily do listing of books and manuscripts. Moreover, it can help us in process of data saving and data storing. With the help of super computer or in micro chips we can preserve the millions of books and manuscripts which can be easily accessible for study and research.

iv. The Sanskrit drama can be audio visually recorded with the help information and communication technology and can be preserved for future. Furthermore this type of acts can make popularize Sanskrit and can have global demands of its artists, books and language.

v. Today is the era of mobile and telecommunication technology, application i.e. Apps are easily accessible to all groups of people, hence the famous books of Sanskrit like *Ramayana, Mahabharata, Bethal Panchabingshati* and *Panchatantra* can be easily made app based, so that it can be known to all groups of people in global area.

vi. Through the help of internet we can preserve and built up new information of our plants and animals which is written in our ancient books. This can also be done with the help of e-museums, e-library, 3D models, images, flash documents and with the help of audio and video files.

Moreover it's a challenging task to build of new context of ICT and Sanskrit. But it is a good dimension to make popularize Sanskrit with help of computer and information technology. It is interesting to note that even today Astrologers and Vastuvids are using computers for predicting as well as calculating auspicious date, periods and other important predictions through software programmed. So, using of ICT in preservation and modernization of Sanskrit is the demand of hour.

Conclusions: In earliest time Sanskrit was an oral langunage called sruti, than it was transform into written language. All the Vedas, the Samhita, the Aranyakas and the Upanishads were in the form of oral language. After this era people comes through writing and preserve the knowledge through writing but at present times Information and Communication Technology (ICT) emerges as a new science to preserve our ancient knowledge. It can be said Sanskrit has huge reservoir of our traditional knowledge and this can be explore to the global community with the help of computer technology. To sum up, it is to be said that tomorrow's bright future is in the hand of today and if we preserve Sanskrit in a better way, the outcome will be come in more effective way "*Joyatu Sanskritam, Joyatu Bharatam".*

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