



## Conserving Culture through ICT: A Case-study of Jaunsar- Bavar

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It has been more than two decades since computers were introduced in India, more than fifteen years, since the internet was introduced in our country and another decade and a half since mobile telephony was introduced in India. This trio (computers, internet and mobile) has changed the way the country thinks, works, lives and entertains itself.

The term 'Information and Communication Technologies' (ICT) refers to technologies designed to access, process and transmit information. ICT encompasses a full range of technologies - from traditional, widely used devices such as radios, telephones or TV, to more sophisticated tools like computers or the Internet. The mix of technologies used should be determined mainly by the specific local context and demand.'\*\*

Although, ICT does not have the capacity to preserve the community sentiments and emotions but certainly it has the capacity to preserve

- a) indigenous knowledge system regarding ethno medicine, technology, human ecology
- b) cultural features like literature in local languages (some of which may be endangered), dance, music and instruments
- c) rituals, fairs and social events

'ICT is having a transformative impact on our everyday economic, social and cultural lives. The new technology, especially the Internet, holds promise for Aboriginal nations and the hope for the future is that ICT can be effectively and appropriately harnessed by Aboriginal peoples to propel forward their process of cultural renewal. Indeed, some of the most promising ICT applications are in the cultural field. The preservation and protection of Aboriginal languages, ecology and heritage is of utmost importance to sustaining Aboriginal cultures. Although technologies can serve as tools to enable the transfer of cultural information - language, stories, practices and symbols - they also pose risks. A critical challenge for the future is the identification and mitigation of the potential risks of ICT such as misrepresentation and misappropriation of culture and cultural homogenization. The continuity and renewal of Aboriginal cultures are deeply rooted in the self-determination of Aboriginal peoples and how they wish to shape and evolve their cultural futures. This is no less true when it comes to Aboriginal peoples harnessing the potential of ICT.'<sup>1</sup>

In spite of the challenges there is no doubt that the new technology can be utilised for preservation of culture. Since the pace of culture change is very rapid .The world is losing out on its cultural heritage and diversity. One has to realise that cultural loss is occurring

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rapidly so we must preserve it before it is evaded. Moreover this technology has reached urban, rural as well as the isolated tribal areas too. Though the people are making attempts to record certain event they are amateur attempts and lack complete anthropological details.

'As Indigenous communities endeavour to maintain their traditional ways of knowing, many are turning to information and communications technologies (ICTs) to sustain and stimulate their Indigenous knowledge traditions<sup>2,3,4</sup>. They are using analogue and digital video and audio recording devices, as well as a constellation of computer, mobile, and Internet-related technologies, to capture, store, and make available to future generations important aspects of their languages, arts, and understanding.

But this new technology must be adopted with precaution. 'In this digital era, the development of the indigenous cultures can be aligned to advances in ICTs. ICTs can be used to share and globalize these cultures. Actually, ICTs exist to ensure that these cultures are shared and appreciated globally. ICT is the most accessible mode of transmission. ICT artefacts like the internet, website, cell phone and television, DVD and CDs can be and are used by the traditional cultural group. Through songs, the group makes the world know about their existence, that of their communities and country; while at the same time helping maintain their everyday life needs/economic goals.

Indeed opportunities for development and popularization of cultures have opened up due to the use ICTs. .... ICT is defined as a diverse set of technological tools and resources used to communicate, store and manage information.

Challenges are inevitable whenever something new is tried. Being a group comprised of people from rural and humble poor background, it has been difficult for the group to secure money that would enable them to take advantage of technology. They could not get a loan from any bank as banks too discriminate in terms of economic standing. The poor who have 'no material property or finance' are excluded. Corresponding to this financial constraint has been the difficulty for them to get sponsorship to record their pieces, package them in available technological gadgets and market them all over the world. Much of what they did to advance to where they are now is because of their talent and determination which led to the group's popularity growing within a very short period of time.<sup>5</sup>

When we use this new technology to preserve cultural traits we create E-Heritage. E-Heritage can be defined as 'Use of ICT and digital technologies for representing & preserving cultural heritage: tangible - sites, monuments, artefacts, world heritage - UNESCO - Great Barrier Reef, Angkor vat, movable heritage - museum artefacts, underwater heritage -3 million shipwrecks and intangible - stories, performances, dance, music, language, knowledge.'<sup>6</sup>

### The Need for Digitisation of Culture

There may arise a question as to what is the need for digitisation of culture. Firstly the digitisation of Culture will preserve it for future generations. For e.g. the indigenous knowledge which is the possession of the senior generations will get evaded with them.

But if we preserve it can be utilised in planning processes for the region. Secondly the people can propagate their culture. This can get them benefit through increased ethno-tourism. Those who have migrated can share sentiments with community people, so diaspora significance is also one of the factors. Thirdly we can showcase the cultural heritage to the world. Every culture is precious for its people because it gives them a unique identity, so by creating E-Heritage we can prevent cultural loss to some extent.

### Challenges

Indigenous knowledge is usually cast in terms not typically associated with Western knowledge: local, holistic, and *agrapha*<sup>7</sup> relational, conscious, animate and interactive<sup>8</sup> non-formal, undocumented, dynamic and adaptive<sup>9</sup> empirical rather than theoretical, negotiated, shared, distributed in fragments, situated within broader cultural traditions.<sup>10</sup> As a result, where Indigenous knowledge is rooted in a physical or ritual place, situated within a human community, orally and experientially shared, and subject to change, the design of preservation technology is often in opposition: 'the prime strategy for conserving indigenous knowledge is *ex situ* conservation, i.e., isolation, documentation and storage in international, regional and national archives'<sup>11</sup>. The collective, oral-based knowledge systems of many Indigenous people are a poor match for technologies that 'reflect Western values of individualism, the privileging of texts and the commodification of knowledge trends that run counter to and likely threaten many indigenous traditions (cf. Bowers et al. 2000)'<sup>12</sup>. The problem with ICTs is that they tend to foster individualism (i.e. computers are designed for single users), *ex situ* conservation, and literalism (i.e. facts stored in databases, removed from narrative or proverbial structures). In addition, Indigenous knowledge bases are often housed in ways that are not conducive to communal sharing. The act of disconnecting knowledge from its source 'will remove from that knowledge the very context which infuses it with life. Because indigenous knowledge is continuously generated and renewed in the living practices of people, archiving in isolation from practice removes its ongoing relevance.'<sup>13</sup>

### The question of Obsolescence

Over the last few years, *digitization* has become the buzzword for cultural preservation. A salient feature of digital formats is that we are no longer tied to a particular technology for access. Whereas a record album could only be played on a turntable, a song saved in the mp3 format can be played on a variety of machines (computers, mp3 players, some DVD players, etc.). Although this would suggest that information now has a greater likelihood of avoiding obsolescence, we must recognize that 'the digital information on which we all rely is actually remarkably fragile. Society needs to ensure that digitally encoded information can still be understood and used in the future when the Software, systems and everyday knowledge will have changed.'<sup>14</sup>

As new technology replaces the old, there is evolution of means of conversion of the old forms of data into the new forms. So the question of obsolescence may be ruled out. According to some latest reports now M-DISC<sup>TM</sup> available which can preserve data upto a 1000 years. 'M-DISC is the only data storage solution to withstand rigorous testing by the U.S. Department of Defense. Even today's leading archival optical discs weren't up to the challenge. M-DISC is resistant to extreme conditions of light, temperature, humidity

and more. M-DISC cannot be overwritten, erased or corrupted by natural process. Best of all, it's compatible with any DVD drive, so you can access your data anywhere, anytime.<sup>15</sup>

### What we did

People studied- Jaunsar-Bawar is a hilly region comprising of three subdivisions Chakrata tehsil, Tiuni and Kalsi in Dehradun district, the northern part comprises Uttarkashi district, and some parts of Himachal Pradesh. The region spreads over 1002 km<sup>2</sup> and 400 villages,<sup>5</sup> between 77.45' and 78.7'20" East to 30.31' and 31.3'3" North. It represents the geographical region inhabited by the 'Jaunsari' tribe. Jaunsar- Bawar comprises two regions, inhabited by the two predominant tribes: 'Jaunsar', the lower half, while the snow-clad upper region is called 'Bawar'. The area lies between the river Yamuna in the east and river Tons in the west. The main means of livelihood are agriculture and animal husbandry. Geographically, Jaunsar-Bawar region is known for its rich reserves of forested areas, in the high hills region, with trees of Deodar, Pine, and spruce.

The people of this area claim their descent from legendary Pandavas of Mahabharat. They attribute their practise of polyandry to this origin. The people speak Jaunsari language which is of Indo-Aryan and Indo-Iranian origin and is different from Garhwali language.

Research Methodology- Indigenous knowledge is scattered, and retained by oral traditions and we have to gather it through intensive and extensive Anthropological fieldwork. The traditional knowledge is preserved through the transmission of these oral tradition from one generation to the next and the people believe more in demonstration and practice of their traditions rather than documentation. There are scanty written articles by local people and the available written references are insufficient. This may be owed to illiteracy of the local people and to the inability of the outsider researcher to learn their language.

The geographical terrain of this area is extremely difficult and the villages are perched distantly on different mountains. But still we had to interview scores of people before we could get authentic information and validate it. Once we could get the information we first documented the information and then did attempted the digital preservation.

Step 1 Empirical study and documentation- The first thing we did was that we explored about the various categories of songs and dances. We then documented the songs in Devnagri script, since there is no script for Jaunsari and it is only a dialect. Later they were also translated in Hindi and English. Then an anthropological analysis was done of these songs. We discussed the contents of the song, the occasion on which they are sung, the style of singing, the instruments played etc. All these documents have been typed in MS Word 2003 and converted into pdf files and saved. Thus the oral literature of an endangered language has been written and conserved. The collection consists of some of the oldest famous Jaunsari songs of various categories.

Step 2 Musical instruments- We then searched for the traditional instruments- (*dhol, damanau, sarnai, karmai, bimui, hudka*, etc.) An Anthropological analysis of these instruments was done. The researcher noted their details like material from which they are made, the styles of playing the instrument, who makes them (of what caste), who plays them and on what occasions etc. We clicked digital photos of these instruments in JPG format. Then we requested the players to play each instrument separately and did video recording on a Sony handy camera. These short films and then be converted to Avi format/mov format/mp4/after editing into VOB format.

Step 3 Songs-The various styles of singing that are popular in Jaunsar bawar are fast being influenced by modern music. We decided to cover these in the traditional form (*chode*,

*bharat, laamad, jungu, harul, tande-ke-geet, aande-pande ke geet*). So we searched the older famous artists. Then we made audio recording through the sony voice recorders. These audios can be converted to mp3 format.

Step 4 Dances- We tried to cover these dance forms (*Jhainta, gundiya raso, harul, etc*) through programmes organised by us (It is an important fact that though the stage performances lose their cultural context, yet the style can be seen which are done in villages on different occasions throughout the year) and popularised and propagated. We also covered various variety of dance forms as well as the songs. In these videos not only the dance-forms can be seen but the costumes worn by the dancers in different dance sequences can be seen and also the accompanying musical instruments are also visible.

Step 5 Events-like fairs and games- We were so excited by the outcomes of the previous attempts that we decided to hear some film- making experts with professional HD movie cameras. We made a documentary on one of the fairs called *bissu* with special focus on a traditional game called *Thoda*. The outcome was a 15 minute movie called *THODA: THE GAME OF THE WARRIOR CLAN*. This movie will be converted into MOV format/ Avi format / mp4 format /DVD in VOB format.

### **Future Moves**

Once this content is developed we plan to launch a website of this area (with local ownership) wherein all this information can be uploaded and accessed by all. This would display the local culture to anyone who is interested in knowing more about them. But for doing so the digital information shall have to be converted into Web format or a link can be provided on the website and video can be uploaded on you tube in mp4 format. We shall also preserve the data on M-Discs.

### **Limitations**

It is easy to sing a song but it is very difficult to recite it and write it. Earlier, mostly these songs were taught by oral traditions. Moreover the people who know them are largely illiterate and belong to the senior generations. So it was a challenging and time-taking task to write these songs. At the same time it is also important to know the language to be able to interpret this literature. One has to follow the annual calendar of events to be able to cover the different kinds of songs and dance forms.

Secondly it is difficult to convince people to sing for recording. The older people of Jaunsar Bavar are very simple and shy by nature and become extremely conscious about it.

Thirdly, it is definitely time-consuming and expensive job. If we do the task by ourselves we need to use gadgets that are very expensive. At an advanced stage, it also requires collaboration of Anthropologists and (for technical knowledge) IT experts.

### **Conclusion**

Though the entire task of digitising the rich cultural traits of Jaunsar Bavar is an ambitious project, yet it shall have a long lasting outcome. It can open up opportunities for the local artists. It will display the natural beauty of the area and open it up for ethno-tourism. It will preserve the cultural identity as well as the language of the people. It will also bear the information of the indigenous knowledge systems of this area.

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