

## Chapter 24

# Use of ICT and Digital Technology to Conserve India's Cultural Heritage: Possibilities of Implementation With Reference to Agra Fort

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### ABSTRACT

*The heritage of any place is required to be conserved, documented, and protected to the extent possible for the benefit of future generations to retain its culture, pride, and traditions. Advancements in information, communication, and digital technologies have considerably extended supports in identifying, preserving, and managing cultural heritage items. The use of web-based applications and digital tools plays a significant role in preserving and sharing cultural assets. This chapter proposes the importance of building a comprehensive cultural heritage information system for preserving and conserving the cultural heritages pertaining to one of the UNESCO's world listed cultural heritages in India named Agra Fort. The researcher highlights the opportunities and the need for conserving the knowledge content of the heritage items associated with Agra Fort.*

### INTRODUCTION

We are living in a period characterized by fast and revolutionary changes in all the spheres of life including the culture, environment, society, and technology. The development of culture is a historical process, and its characteristics vary from country to country and community to community. Expectations about practices and values in visual art, architecture, acting, music, dance, recitation, and ritual develop over a long period, differing radically from culture to culture and, within cultures, often cross-class and gen-

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der” (Gillman 2010). The cultural heritage of any place is an integral part of the life of the people who belong to it irrespective of the community, caste, religion, the social and economic status they possess. It is the legacy of physical artifacts and intangible attributes of a group society that is inherited from past generations’ (Falser, 2011). The heritage of any place is required to be conserved, documented, and protected to the extent possible for the benefit of future generations to retain its culture, pride, and traditions. Every heritage item embeds knowledge- cultural, scientific, and technological destruction of heritage sites in the name of development causes serious damages to the continuity of development in all spheres of human activity. The new philosophy of cultural heritage combines cultural and natural heritage, in line with the UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage, adopted in 1972 (UNESCO 1972). Conservation of heritage especially knowledge heritage is essential for future generations to move forward instead of getting degenerated. Conservation requires a correct perspective of the item or environment to be conserved and also the full control of data and knowledge related to the environment. Advancements in information, communication, and digital technologies have considerably extended support in identifying, preserving, and managing cultural heritage items. The use of web-based applications and digital tools plays a significant role in preserving and sharing cultural assets.

Digital archives of cultural heritage are an effective mechanism to preserve and store the data on endangered cultural heritage items. The application of Information and Communication Technology (ICT) to manage and conserve cultural heritage is the need of the hour. Establishing an exclusive digital archive and museum on a particular region or cultural heritage site or cultural inheritance can store, preserve, and help retrieve all the information about them at one place with the help of an easily searchable user interface. It can attract support for continuing and completing the work from different national/ international organizations. Making the traditional and cultural richness accessible for further research and development enhances the concern for its protection and strength to rebuild or reshape the deformed structures as they were earlier. Such initiatives bring into control the full and reliable data heritage and create a visual replica of all the heritages items with their environment and maintain it using ICT and digital archiving tools specially developed by the international standards. The information system developed needs to be of interdisciplinary interest, a unique source for research, and of high significance to administrators, tourist departments and culture departments, and conservation activists.

## **NEED FOR SAFEGUARDING CULTURAL HERITAGE**

Cultural heritages are evidence of human creativity, expressions, performing arts, traditional customs and rituals, belief systems, photographs, sculptures, drawings, paintings, architectural creations, historical monuments, and buildings. The concept of cultural heritage is different from the notion of the common heritage of mankind and can be seen as a result of the activities and processes performed by humans (Aplin, 2002). Cultural Heritage can be expressed as the ways of living developed by a community and passed on from generation to generation, including places, objects, practices, customs, values, and artistic expressions (Tuna et al, 2015). It is a memory, feels, and richness of a country that is depicted in its heritage items. It can be in the form of tangible or intangible and movable or immovable nature, which is transmitted from one generation to the other. It is a legacy that is inherited from the old ancestors and is a sign of their achievements. Furthermore, it is interesting to trace out the heritage items and examining them in detail to know the history, science, technology, and philosophy behind such unique

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