

Digital Preservation in India

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. 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 resources was never discussed. In similar way, the concepts of digital preservation have been introduced in India very late, i.e., sometime in year 2008 only.

Digital preservation is a process of preserving both digitised 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.

My introduction to digital preservation started in 2005 when I visited Germany with the support of Max Mueller Bhawan. My three-week stay, one week each at Belfield University, Belfield; German National Library, Frankfurt; and State Gottingen University Library, Gottingen; provided me opportunity to closely study some of the digital preservation initiatives in Germany in particular and in Europe in general. The interaction with researchers working at project like NESTOR, KOPOL, and REUSE, etc., helped me in learning the basics of digital preservation. After coming back from Germany, I shared my experience in the form of various lectures delivered at various national and international conferences in India. Since then, digital preservation is prime area of my interest.

National Digital Preservation Programme (NDPP) of India <http://www.ndpp.in/> was launched by Ministry of Communications & Information Technology in 2008. Dr Dinesh Katre from C-DAC, Pune was named as one of the coordinators of the project. The first major step by the NDPP was in the form of Indo-US workshop (<http://www.ndpp.in/index.php/events/indo-us-workshop.html>), which was organised in March, 2009 at Pune. The Indo-US workshop was attended by over 25 professionals from USA, Europe, and India. The next major achievement came in March, 2010 with organisation of Expert Group National Meet by C-DAC, Pune. In this meeting position papers from 26 different sectors were presented. On the basis of these presentations, a detailed proposal was submitted by C-DAC, Pune and as a result of which, a project entitled, 'Centre for Excellence in Digital Preservation' with 4 pilot projects were approved in April 2011. Development of digital repository of cultural heritage at Indira Gandhi National Centre for Arts (IGNCA) is one of the projects of these pilot projects. On the invitation of UNESCO-IFAP and Russian Federation, I went to attend the International Conference 'Preservation of Digital Information in the Information Society' held in Moscow during 3-5 October 2011. There, I also presented a paper 'Development of Digital Repository on Indian Cultural Heritage: A Collaborate Project under the National Digital Preservation Programme (NDPP) of India'. I was also invited to submit as External Partner the proposal to contribute in Digital Cultural Heritage – Roadmap for Preservation (DCH-RP) that has been submitted to the European Commission as part of the FP7 Capacities Programme–Research Infrastructures Theme–Topic INFRA-2012-3.3: Coordination actions, conferences and studies supporting policy development, including international cooperation, for e-infrastructures. My active participation in all above events and projects has helped in further understanding of the subject.

There was very good response for special issue of *DESIDOC Journal of Library & Information Technology* on digital preservation. Among all proposals, 6 papers have been selected for this issue. Out of 6 papers, there are 3 papers from outside India, i.e., one each from Germany, South Africa and South America.

The review paper, entitled 'Digital Preservation of Electronic Resources', discusses issues concerning digital preservation of various e-resources such as full-text databases, bibliographic databases, e-journals and e-books, etc. Due to huge advances in information communication technologies (ICTs), there has been an astronomical growth of electronic resources- e-journals, e-books, online databases and so on; libraries spend phenomenally on acquisition of these e-resources as these are popularly used by the students and researchers. Unfortunately, this growth is accompanied by

many threats. Digital content (of the e-resources) is fragile and not durable . Its accessibility and use for future generations depend on technology which very rapidly evolves and changes. Hence, ensuring access of e-resources to future generation of users is a big challenge for libraries. This paper highlights various problems of digital content and elaborates how digital preservation of e-resources is more demanding and challenging than preserving print copies of journals. It also gives a bird's eye view of various projects initiated for archiving digital content of scholarly journals.

The paper entitled 'Tailoring Digital Preservation Services for Practice: Workflow Development and Cost Modelling' gives a brief introduction of digital preservation services including advanced organisation solution and a cost model. The paper has presented the workflow implementation and especially, quality assurance, very viable procurement, predictable cost, reliability and documentation and the implementation of digital preservation project at German National Library.

The paper entitled 'In search of Simplicity: Redesigning the Digital Bleak and Lloyd' presents a case study of Digital Bleak and Lloyd collection in the Lucy Lloyd Archive and Research Centre of the University of Cape Town, South Africa. The paper argues that design of the digital library system should have focus on preservation re-usability of the content to facilitate long-term preservation of the digital content.

The paper entitled 'Investing the Future: Digital Information Preservation' identifies the current policies for the preservation of digital information in South America and also suggests development of national and macro-regional strategies and policies. It is based on a collaborative research, carried on by way of a survey of 11 publications, both locally and internationally completed with interviews with key informers.

The paper entitled 'Need of Legislation and Digital Preservation Framework in Indian context' provides a comparison between the American and Indian digital preservation programme based on essential building blocks such as National Legislation for Digital Preservation, basic legal framework, national legislation preservation initiatives, digital preservation tools, standard and practiced guidelines, digital repository infrastructure, audit, and certification. Selected digital preservation policies of various organisations from UK, Canada and Australia are also analysed.

The paper entitled 'Implementing Open Archival Information System Reference Model for Digital Preservation of an institutional repository' discusses OAIS reference model and its implementation for a pilot project for the development of an institutional repository at the Indian Institute of Geomagnetism, Mumbai, India.

The paper entitled 'SpaceGL: An Indian Portal for Space Science Grey Literature' presents an experimental prototype model developed using DSpace for the designing of a web portal which provides access to space science grey literature.

This special issue also contains some general papers received for the Journal. This is essential to maintain the regular inclusion of various contributions received from Library and Information Science professionals in India as well as from abroad.

I would like to express my sincere thanks to Director, DESIDOC for appointing me as the Guest Editor and also having faith in me to bring out this special issue of *DJLIT* on digital preservation. I am grateful to all contributors, especially Mr Reinhard Altenhoener, Dr Dinesh Katre, Dr Hussein Suleman, Ms Susana Finqueliévich and Ms Elida Rodríguez for their special contributions to the journal. I am not an expert in digital preservation as I am still learning from experiences about this very complex and challenging subject. I am sure the articles published in this issue would be very helpful to libraries and archive in India in particular and other part of the world in general. Once again I thank you all. Special thanks to the editorial team of *DJLIT*.

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