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## CONTENT CREATION: INITIATIVES OF GOVERNMENT OF INDIA

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### Abstract

*Information is regarded as a vital resource and an invaluable commodity in modern times. It plays a significant role in the socioeconomic, scientific and technological development of a country. The rise of the Internet and the rapid expansion of electronic information present new challenges for acquiring, storing, organizing, preserving and dissemination information to the users. In the digital age, the contents are created in the form of web sites, virtual libraries, databases, portals and web logs. The present paper describes the initiatives of Government of India in context with content creation. The recommendations submitted by National IT Task force in the IT Action Plans and their status of implementation has been reviewed briefly. Major e-governance projects reported in official database of e-governance projects in India in context with Content Creation were located and discussed briefly.*

**Keywords :** Content Creation

### 1. Introduction

The rise of the Internet and the rapid expansion of electronic information present new challenges for librarians who must acquire, store, organize, preserve, and disseminate this information to their users. We are living in a digital world. The arrival of new information and communication technologies (ICT's) has been heralded as a revolution for the world. Its presence is ubiquitous. In our day-to-day life we see computers, laptops, palm tops, digital diary, digital camera, cell phones with camera, digital television etc. This has encouraged the availability of information in digital form at a large scale. The growing importance of ICT's, Internet, WWW has given a new dimension to the library and information centers. Several reputed and authentic resources are freely available on the Internet. The contents are created in the form of web sites, virtual libraries, portals, databases and web logs.

### 2. Content

"Content is just about anything that isn't executable". It could be anything digital — that is, anything that could be distributed or accessed electronically — that is not software. This sort of content could be images, audio files, movies and text. [1]

### 3. Initiatives of Government of India in Content Creation

IT has been the greatest change agent of this century and promises to play this role even more dramatically in the coming decades. IT is changing every aspect of human life - communications, trade, manufacturing, services, culture, entertainment, education, research, national defence and global security. IT is breaking old barriers and building new interconnections in the emerging Global Village. IT has also become the chief determinant of the progress of nations, communities and individuals. The Government of India has recognized the potential of Information Technology for rapid and all-round national development. The National Agenda for Governance, which is the Government's policy blueprint, has taken due note of the Information and Communication Revolution that is sweeping the globe. Accordingly, it has mandated the Government to take necessary policy and programmatic initiatives that would facilitate India's emergence as an Information Technology Superpower in the shortest possible time.

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Accordingly, the Office of the Prime Minister issued a Notification on 22nd May, 1998 constituting a National Task Force on Information Technology and Software Development. This Task Force is chaired by Shri Jaswant Singh, Deputy Chairman, Planning Commission and co-chaired by Shri N. Chandrababu Naidu, Chief Minister of Andhra Pradesh and Dr. M. G. K. Menon, former Minister of State for Science and Technology. Its members include eminent representatives from the Government, industry and academia.

The Task Force has completed its deliberations submitted its first report to the Prime Minister. This report, called the Information Technology Action Plan. This action plan has been divided into three parts [2]

- IT Action Plan –I (Information Technology and Software Development)
- IT Action Plan –II (Hardware Development)
- IT Action Plan – III (Long Term IT Policy)

#### **4. IT Action Plan I**

The content creation aspect was emphasized in three recommendations out of 108 viz (No. 84, 85 and 86). These are [3]

##### **4.1 Citizen IT Interface**

84. The Cabinet has approved NIC's proposal to make government Information, other than that having a bearing on security, available to the public. This decision shall be implemented by suitably empowering NIC to do so. This recommendation addresses the felt need for easy availability and extensive transparency of government information.

85. District Information System (DISNIC) Plan Programme shall be made widespread and databases updated online, shall be made available to the public and Panchayats, among others. Courts Information System (COURTIS), Parliament Information System (PARLIS), Computerised Rural Information System Programme (CRISP) and other such databases shall be updated online over NICNET and access to public facilitated .

86. A Citizens Charter for effective and responsive administration in terms of time-bound service to the public shall be framed and implemented under the coordination of the Department of Administrative Reforms & Public Grievances and hoisted on the official INTERNET Web Site 'India Image' of the Government of India.

#### **5. Action Taken Report**

The status of implementation of these 108 recommendations were published by the Ministry of Information Technology, Government of India in its official report called "Action Taken Report". The observations are: [4]

Sr. No.	Recommendation	Responsible Department	Status	Remark
1	Rec No. 84	Department of Information Technology	Implemented	This recommendation addresses the felt need for easy availability and extensive transparency of government information. NIC has made available government information, other than that having a bearing on security available to the public
2	Rec No. 85	Department of Information Technology	Implemented	Courts Information System (COURTIS), Parliament Information System (PARLIS), Computerized Rural Information System Programme (CRISP) and other such databases shall be updated online over NICNET and access to public facilitated. NIC has made available updated data bases on-line over NICNET for access to the public
3	Rec. No. 86	DOPT	Implemented	59 Citizens Charters have since been formulated by the Central Ministries/ Departments/ Organizations and have been operationalised. NIC has launched the country portal "India Image".

## 6. IT Action Plan III

The 108 Recommendations of the IT Action Plan Part-I emphasize the Policy Framework required for creating an ambience for the accelerated flow of investment into the IT sector, with specific orientation towards the Software Industry. The Information Technology Action Plan Part-II furnishes 84 Policy instruments for the Development, Manufacture and Export of IT Hardware. The Task Force advocated that the software industry and the hardware industry are two sides of the gold coin representing India emerging as a global IT super power.

IT action plan III has been divided into sub sectors like the strategic policies for the IT industry, IT Research, Design and Development, IT Human Resource Development, Citizen-IT Interface, Content Creation and Content Industry, Micro Electronics, Mission mode creation of Fibre-optic infrastructure, Financing the IT sector and organizational structure. [5]

### 6.1 Content Creation and Content Industry

The recommendations ( Rec. No. 74 -102) under the sub sector Content Creation and Content Industry are: [6]

74. Convergence of print medium, databases and telecommunication has led to the advent of the electronic content industry. The Content industry has come to mean various commercial and non-commercial activities relating to the bibliographic, textual and statistical databases as well as the information, education and entertainment materials in the electronic form including audio, video and multimedia forms. The Government of India will give priority for promoting this human-resource intensive industry extensively in the country.

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75. Considering the vast global and domestic market, the content industry has a potential to grow to a size comparable to the computer software industry with enormous opportunities for income and employment generation. Content development being an integral part of any information system, the content industry is recognized as a priority sector for lending and according the same benefits for purposes of promotion and development as given to the software sector.

76. The Government and its associated organizations are the largest producers of socio-economic and statistical information. These vast databases will be rationalized by using standardized formats and retrieval mechanisms and make them easily available on line to the planners, scholars and the public.

77. All non-classified or declassified information in the possession of the government agencies will be made available to the content industry on non-exclusive basis. The terms and modalities of dissemination already approved by the Government will form the initial basis.

78. The government will fund and sponsor researches on various aspects of content development, including related market studies and develop a short term as well as a long-term vision and growth strategy for the sector. Detailed research studies will be undertaken to identify specific areas for content creation and its marketing at regional, national and international levels.

79. For the information generated or collected through its various agencies, the Government will evolve policy guidelines and a set of standards to classify or declassify the information at the point of origin or compilation. In the case of classified information, the period of classified status will be specified at the point of origin or compilation itself so as to facilitate automatic declassification of such information on expiry of the specified period.

80. All the reports generated out of the R & D works funded by the government and its agencies will be made available for wider dissemination and commercial exploitation. The government will ensure establishment of a suitable mechanism for collection, compilation and timely publication (hosting) of such information in the electronic form.

81. It will be made mandatory for all the universities or deemed universities in the country to host every dissertation/thesis submitted for research degrees on a designated Website.

82. It will be maximally ensured that any information or report collected by the government will be in electronic form at the entry point itself. Similarly, all the information to be made available to the public by the government, such as budget documents, customs and excise rules, railway time tables, telephone directory, maps including public domain digitized maps, etc. will be made available in the electronic form.

83. The national, regional and other public libraries will be required to develop databases of their holdings which will be hosted on a designated web site for free access to users.

84. The Government in association with the industry will evolve appropriate guidelines, codes and systems to ensure that materials anti-social, unsuitable, illegal or posing a threat to national security are not put on the websites.

85. The Indian language based systems are crucial for the growth of the content industry and for spreading the impact of IT to the grass root level. All Government funded software tools developed, for handling information in Indian languages, will be actively promoted for widespread use and made available at nominal cost.

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86. India is known for its rich and diverse cultural heritage. It also possess a vast wealth of traditional knowledge. These are mostly in Indian languages and should be promoted and preserved for posterity. The Government will, therefore, take initiatives, through appropriate projects, to create electronic images of the information on the Indian arts and culture, for wider dissemination and research.

87. Indian language software and content will be required to conform to the BIS standard IS 13194:96 for ISCII code and encrypt keyboard.

88. An effective Copy Right protection system is a prerequisite for development of creative works in the electronic medium. Therefore, the Indian copyright law will be strengthened in this direction. Further, there is a need for global harmonization of copyright laws. The conclusion of the TRIPs ( Trade-Related Aspects of Intellectual Property Rights ) agreement and of the two WIPO (World Intellectual Proprietary Organization) treaties, will be adopted for such harmonization.

89. A domain name registration system will be developed in a manner that allows robust and open competition and facilitates management of Internet names and addresses in India following the best practices available elsewhere in the world.

90. There is a need to promote and encourage hosting of non-commercial materials related to linguistic, social and cultural aspects of the people by the public or private organisations. The Government will take initiative for providing web sites, free of cost, for such purposes.

91. Government will encourage and promote Indian companies and organizations to host their contents only on web servers located in India with Indian domain addresses and these will be made available at internationally competitive prices. Any information hosted on these sites will follow the guidelines evolved by the Government in association with the Industry.

92. For enabling Inter-operability between equipment, data, practices and procedures, Standards will be evolved to integrate hardware, software and communication systems and to exchange information across boundaries of different systems.

93. Creation of knowledge bases requires trained man-power for collection, compilation, analysis and production of value added information products and services. Specialized training programmes, through existing institutions, will be initiated to meet the requirement of trained professionals in these areas. Traditional curriculum being offered by the universities and educational institutions in various fields related to content industry will be suitably modified, such as library science, journalism and mass communication.

94. Multimedia and Internet are the foundations of the future content industry. Creation of multimedia products require specialists in multimedia designing, editing, programming etc. Training programmes for these core professionals in multimedia, will be initiated in Engineering Colleges, Polytechnics and other concerned institutions.

95. For providing global exposure to Indian content industry, the Government will project this industry through India pavilion in key industrial events like London Online. The government will, initially, sponsor such exposures through recognized Indian industry associations.

96. The banking and financial institutions will be advised to recognize content development activity as an industry for providing venture capital and develop appropriate norms for financing this industry. A special venture capital fund will be created exclusively for electronic content industry.

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97. Suitable amendments will be made to all the existing acts and rules of the Government to recognize and treat the content in all forms(text, graphics, audio, video, visual, full motion, multimedia etc.) and all mediums (print, microfilm, optical, magnetic, Internet-based, etc.) alike for all statutory compliance and taxation purposes.

98. To make the Indian content industry globally competitive, the royalty terms for licensing the copyrighted contents and the software provided by the global information providers and publishers, will be allowed to be determined by the market forces. RBI guidelines, in this regard will be amended suitably to remove the present royalty restrictions of 15% for data ( publishing) and 30% for software.

99. A pilot project on digital library development, based on indigenous software, will be initiated. The project will be time-bound and implemented at one of the suitable existing libraries to serve as a model. The software so developed can be distributed to other organisations to accelerate the development of digital libraries in the country.

100. Virtual libraries provide extensive information and instant access to users through information networks. The Government will promote a pilot project for creation of a model virtual library. The virtual library will be enabled to work out suitable copyright arrangements with the relevant publishers for providing the service.

101. A National Internet Centre of Excellence (NICE), will be established in an existing institution to promote standards, assist digital content development in India, devise standards for content building and delivery, and research new technologies.

102. Games constitute one of the largest segment of digital content through such media as video games, TV Games, etc. Moreover, it would continue to command a large share of global digital media market for the next five years. Appropriate promotional measures will be taken to boost games software exports from India.

## **7. E-governance and Content Creation**

Electronic Government has emerged as one of the flagship applications with aspiration to employ multimedia and network technologies to re-invent the way the government works. This IT enabled government will ensure better transparency and services to the public. Although the opportunities are exciting, there are also significant challenges to making new technology and ideas work. Considering the impact of IT in every discipline, new technologies are emerging even in the library systems giving way to Electronic books, Digital libraries and their access mechanisms. Online catalogs, full-text search and retrieval facilities, automated record keeping, computer-based decision-making and so on are a few services that the libraries of the future will provide. One great advantage of having information in the digital form is that it can be shared instantaneously and easily at relatively low cost. Major e-governance projects in relation to content creation are: [7]

### **7.1 Major e-governance projects in context with content creation**

Major e-governance projects in context with content creation reported in the official database of e-governance projects developed and maintained by Ministry of Information Technology are discussed briefly.

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- **HALRIS - Haryana Land Records Information System**

The Land Records computerization system involves different sub-systems like Jamabandi creation, Mutation, Khasra Girdavari, Generation of New Jamabandi, On-line query on Land Records Information, Nakal (Record-of-Right) generation and distribution services to public. The project is being implemented in all 19 districts of Haryana. Some of the districts have completed 100% entry & verification of Jamabandi. Above 95% of basic data entry of Jamabandi has been completed in the State. Creation of New Jamabandi using semi-automatic Jamabandi generation system and Nakal services was started at select districts. Project is being carried out under HALRIS - Haryana Land Records Information System. [8]

- **Secretariat Knowledge Information Management System (Smart Governance)**

The project was carried out with the aims like to automate the workflow of AP Secretariat, to enhance employer productivity, to integrate various departments through workflow, to create and enable online access to knowledge base of AP Govt. (like Acts, GOs, rules, judgments, policies, references from Judiciary and Central Govt. Dept., etc.), to monitor and track the files to enable speedy clearance through informed decision making and to create a Paperless Secretariat. This is the project of Secretariat Knowledge Information Management System (Smart Governance) Government of Andhra Pradesh. [9]

- **e-Procurement System (e-Procurement)**

The aims of this project were to automate the procurement and purchase procedures of AP Government starting from demand aggregation to procurement and fulfillment. Monitoring and tracking of all purchases of all goods and services by Govt. organizations. Creation of a paperless procurement system, transparent procedures, accountable and cost effective & efficient procurement. Project is being carried out under e-Procurement System (e-Procurement), Government of Andhra Pradesh. [10]

- **Indian Sportal**

A Portal for providing Sports Content to citizens. This will serve as a hub of communication that the citizens can rely on for online needs and interaction in the field of sports. Project is carried out by Ministry of Youth Affairs & Sports. [11]

- **Land Records Computerization Project (LRCP)**

It is the project of Directorate of Land Records, Revenue Department, Haryana. The Land Records computerization system involves different sub-systems like Jamabandi creation, Mutation, Khasra Girdavari, Generation of New Jamabandi, On-line query on Land Records Information, Nakal (Record-of-Right) generation and distribution services to public. The project is being implemented in all 19 districts of Hayana. [12]

- **Integrated E-Mantra Application**

To develop & spread the digital culture all over the State to achieve e-governance, those who are at the delivery end of the services should be equipped enough to handle and spread e-governance. Also the citizens will require a transparent medium of information exchange that makes governmental information freely available to them. With this objective in mind, DIT has developed group of integrated applications called e-Mantra. It is the project of Department of Information Technology. [13]

- **Cash Account of Legal Metrology**



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It is the project of Legal Metrology Organization, West Bengal. MIS Project for Compilation of Revenue Collection by the Inspector of Legal Metrology and ACLM and DCLM etc. Inspector wise, District wise or Account Head Wise. Also maintains databases of Trader, markets, Awareness camps etc for monitoring purpose. [14]

- **BHOOMI**

The project of West Bengal Government, carried out by LAND Organization. It deals with Creation and online updation of Khatians , generation of certified copies etc. [15]

- **EPIC and Electoral Roll**

It deals with Creation of Election Photo Identity card, Creation of Electoral Roll, Publication of Roll, Generation of Photo ID Card. It is the project of Election Section, West Bengal. [16]

- **Government of India Web directory**

The project is carried out by National Informatics Centre. GOI Directory is a one-of-its-kind comprehensive directory providing information about web sites of Indian Government including all its entities such as Ministries, Departments, States/Union Territories, District Administrations, Organisations, Institutions, etc. Categorized under broad headings viz. Executive, Legislative, Judiciary, States/UTs and sectors like Banking, Co-operatives, Cultural, Educational, Health, PSUs, Scientific, Sports and Tourism, Committees, Documents, International Presence both within and outside India and Events, the GOI Directory serves as a single window for all e-information of Indian Government. Containing thousands of web sites and millions of web pages hosted on a variety of servers (both NIC's servers and otherwise), the directory is regularly updated to include new links and offers facilities to suggest new sites, send feedback and mine the complete content of all government web sites. The GOI Directory presents the cyber face of e-governance in India. [17]

- **e-Gram Suvidha : GIS-based Facility MIS**

The objectives of this project are creation of spatial databases with village resolution and linkages with related attributes and designing and development of customized software for generation and view thematic maps, query based map output and identification of suitable locations for creation of facilities. Project carried out by National Informatics Centre. [18]

## **8. Conclusion**

In the present age of information revolution and ever increasing demand for exact and consolidated information, the functions and old methods followed by traditional librarians are being replaced by new techniques and technologies such as artificial intelligence, expert systems, comprehensive databases, mobile computing, Internet, WWW, data mining, knowledge portals, multimedia, hypermedia, etc. Content Creation and Content Industries play an indispensable role in the digital age. Governments of developed countries already initiated their efforts in this direction. The Governments of developing countries like India are also actively contributing in this direction. The National Task Force on Information Technology in India has given valuable recommendations for content creation industries in India. Many of the recommendations have been already implemented and some are in ongoing status and expected to be fully implemented before the year 2008. It has been suggested that the Central and State Government department, Private Sectors, Industries, Academic Institutions, Research Institutes should come up with more and more content creation projects and their Institutional Repositories.



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