NATIONAL INFORMATION SYSTEM FOR FASHION DESIGN TECHNOLOGY (NISFDT): A PROPOSAL

"The most beautiful thing we can experience is the mysterious. It is the source of all true art and science." Albert Einstein
6.1 Introduction

In the recent years the communication technology (CT) and the Information technology (IT) combined together made a dramatic impact on information storage and retrieval system (ISR) and also on the functioning of the library and information science (LIS) professionals. Since the information is the indispensable source for the socio-economic development of the society, the phenomenal growth of it throws the challenges for the librarianship. The effective system and services are being designed in each discipline to identify, control, organise and disseminate filtered information to the needy. Such systematic attempt of design and development of the information systems facilitated research and development programmes successfully.

Koganurmath in his study mentioned that “the information system of any discipline is a two way process and as such, it has two parts-input and output. The input part consists of a continuous flow of new and newer information with systematic documentation and the output part consists of a user with need who can find his/her information and retrieve it for use.”

6.2 Information System

An information system is a mechanism that integrates the group of structures of organisations or individuals who have agreed to work together for the purposes set by the participants. The integrated information system would help sharing of resources to fulfil the
Zwass (1997) defined "information system is an organised set of components for collecting, transmitting, storing, processing data in order to deliver information for action". Information systems in any disciplines have become a key to the effectiveness and success of organizations. The importance of information system in the field of fashion design technology is strongly felt, though the concept of fashion design is recent origin but the most lucrative and highly creative one. The fashion design technology information system thus can be defined as a "process of system development to identify, collect, organise and to disseminate the information on fashion and fashion related subjects to the needy users at well a head of time forecasted, based on the seasons movement, and the changed taste of the consumers".

6.3 National Information System

Croasdell described "a national information system could be used to turn stored information (Organisational memory) from media-rich systems in to available organisational knowledge". A national information system is basically an inter-linkage of existing information resources together with improved services for filling the gaps in information services to the user community. It assists in enhancing the activities of individual Resource Centres with increased responsibilities. In order to reach the users with enhanced information resources and services, all seven Resource Centres of NIFT need to co-operate and co-
ordinate by pooling their information and other resources for the benefit of common good.

6.4 Background

Knowledge contribute to generation of wealth, it has capability of converting all natural resources into usable products. Information, therefore, value in itself. The vision of late Prime Minister of India, Pundit Jawaharlal Nehru in emphasising the vital role of information can play in national development and the fact was translated in the form of creating “National Information System for Science and Technology” (NISSAT) and the “National Informatics Centre” (NIC).

A considerable progress has been made in the establishment of variety of information centres. In their development, these information centres have sprung up in piecemeal manner, without co-ordination and policy framework for integrating the national system.

India has always attracted the attention of the world as being one of the oldest civilizations with kaleidoscopic variety and rich cultural heritage. The country by its nature, having multilingual people practising different lifestyle from each other, specialised and engaged in innumerable creative activities, spread across the width and breadths of this vast country. The arts and crafts of different kinds practiced are having religious and community background. Thus India, therefore be called “Unity in Diversity”. The country is rich in natural resources and manpower, and these resources have however not been exploited fully and are capable of greater utilization for the development.
Garment based activities in India contributing major share in economic growth of the country and the garments are essential components of the civilised society. Roche mentioned, "Negligence in dress is a sign of neglect of God’s presence, or of insufficient respect for him". The improvement taken place over a period of time in respect of aesthetic part, the style, and the colour over and above the tastes of the consumer or the users are visualised from time to time. India having rich natural fibres like jute, cotton, silk, leather etc and inherited genius of artists and craftsmen who create new and newer products out of the available resources. Majority of the population next to agriculture are engaged in garment-based activities. However the advancement made by latest technology is still not yet reached the village bound artisans of the nation.

The formal education and training programme in the field of fashion designing and allied subjects were felt in late 1980’s by the Government, and the result was establishment of National Institute of Fashion Technology (NIFT) in the year 1987, and subsequent opening of the centres across the country. Thus the fashion trend began in all corners of the country and the fashion business got momentum with availability of trained manpower and the creative fashion designers and the information on fashion and fashion designing.

6.5 Need

The information needed by the fashion designers and others have been executed by the individual ‘Resource Centres’ of NIFTs at
their respective regions, working in isolation without integrating their services and rich collections. NIFT Resource Centres have a considerable amount of information resources located at different centres. These resources can be utilised fully and effectively by developing information system.

In the present practice there is no formal system of information storage and retrievals like regular publications and those are used only for official or internal purposes, which are having limited circulation. There is no regular indexing and abstracting services in the field of fashion design technology. In some centres such services are given but they are irregular and for in-house use only. Present user services offered by each individual Resource Centres presented in Figure no.6.5.1

![Diagram of Individual Resource Centres]

*Figure No.6.5.1
Current user services*
It is observed that no single Resource Centre (RC) of NIFT information base handle the voluminous amount of fashion related information and the range of resources currently available and expected to be generated in the future. The need for strong information system and services for fashion design technology is felt in this study on the following facts

- Tremendous growth of information in fashion design technology;
- Ever rising cost of the resources;
- Overlapping acquisition and the subscriptions to fashion periodicals amongst the NIFT Resource Centres;
- NIFT centres are located in the cities where the communication infrastructure existed further the morale of the proposal;
- Advancement in information technology infrastructure to support the proposed system;
- Improved awareness in information seeking and sourcing by the fashion design professionals;
- Uniformity adopted by the Resource Centres of NIFT in information processing;
- Increasing awareness of fashion and fashion design technology as an emerging field amongst the prospective and present practitioners;
- Threat of losing the valuable material collections in each material sections of the Resource Centres of NIFTs and their preservation by digitisation and integration through fashion design technology information system; and
Maximisation of utility of the resources amongst the users of all seven centres covering the entire nation.

6.6 Objectives

Creation of an efficient and effective “National Information System for Fashion Design Technology” (NISFDT) having nodal centre at national level with rich and strong fashion design technology information base, orienting more towards the collection of information on Arts and Crafts of the various regions to promote and make it available to every user who desire to use it across the country. The proposed nodal centre at national level with its information collection and information network with the Regional Resource Centres of NIFTs located at various cities to serve all, in the field of fashion designing and other related activities is a cornerstone of the proposal.

The objectives of the proposed fashion design technology information system (FDTIS) are:

1. To provide equal and seamless access to fashion and fashion design related information among the NIFT centres and patrons. Keeping in view the ever changing needs the users of different type of members, and variety of material.
2. To provide quality services to the Resource Centre users in terms of access to more relevant and other related information through increased services at reduced cost by way of sharing the acquisition cost of information resources, processing cost, and human expertise;
3. To bring in the standardisation in information processing, procedures and services, amongst the Resource Centres for the benefit of the user community;

4. To bridge the gap between information “haves and have-not” through shared and improved information collection and services to the garment and fashion industry of the country and to the students and faculty members;

5. To develop a nation wide well organised information system of rich arts and crafts through pooling and sharing the arts and craft documents of each NIFT centres to make it available in all regions of the country through the proposed information system;

6. To develop the linkages with other related subject areas and information services within the country and other information services existing in the world in the field of fashion design technology preferably with the member institutes of “International Foundation of Fashion Technology Institutes” (IFFTI) established in the year 1998;

7. To evolve and to upgrade the services compatible with the development and use of information technology from time to time;

8. Creation of digital collection of the material sections of each Resource Centre to preserve and for promoting the optimum use of information resources like fabric swatches, traditional textiles of India, trimming items, and other perishable resources;

9. To fulfil common user information needs at ground levels like the Weavers, Apparel Designers, Garment houses, other Artisans and Craftsmen of the country; and
10. To contribute for the present and future research and development for fashion design technology and other related areas.

6.7 Components of Fashion Design Information System

It is felt that the efficient and effective functioning of the proposed NISFDT depends on the various aspects and identified components. The essential components are:

- Provision of organisational structure that provides fiscal and legal responsibilities, planning and policy formulation to regulate.
- Unique speciality in a geographical area;
- Able professional skill and potential competency;
- Well established communication system to carry the desired information at each level of operation;
- Facility for interfacing with other information systems functioning in the country and outside;
- Set of well defined common standards for information processing;
- Set of policies and procedures to decide the information resources to be covered and upload to the proposed system;
- Code of collaborative resource development;
- Formulation of evaluation criteria;
- Education and training facility, and
- Procedures for coordination and cooperation
6.8 Planning and Co-ordination

The National Information System for Fashion Design Technology (NISFDT) is to be planned and coordinated in the light of the goals to be achieved and standardised practices to be followed by all participating seven Resource Centres of National Institute of Fashion Technologies.

Underwood 5 mentioned, "the vertical dimension of planning emphasises the need to consider policy, strategic and operational level". The present procedures and practices of information processes followed by all seven Resource Centres of NIFTs, indicate that National Information System for Fashion Design Technology (NISFDT) in India should be centralised system, in administration and organisation to avoid disparities and delays in information processes and dissemination. The decentralised system does not suit the functioning of the system taking into considerations of financial and other related matters. The proposed vertical dimension of NISFDT planning presented in Figure no.6.8.1

![Vertical dimension of NISFDT planning](Figure no.6.8.1

Vertical dimension of NISFDT planning)
Looking at the functioning and the effectiveness of the available information systems, and the various activities of the National Institute of Fashion Technologies and their Resource Centres and their locations, it is more advantageous to achieve the desired goal as all NIFT centres are located in well established and networked cities of India. The unified procedure and the activities of NIFT centres is another merit to succeed in the system development endeavour.

There should be a governing body of the system comprising all seven Head Librarians as its members, with full control over the Nodal Centre and other Regional Centres proposed. The Ministry of Textiles and the national centre will have to extend infrastructure assistance to support for the infrastructure, collection development and the services. A simple proposed functional model of NISFDT is presented in Figure no.6.8.2

![Proposed simple functional model of NISFDT](Figure no.6.8.2)
The Institutional Resource Centres should take care of institutional activities along with the responsibilities of Regional Information System (RIS). At the national level the Secretariat of Textiles, Government of India and the Board of Governors of NIFTs and the Director General of NIFT would co-operate, while at the Regional level the Head Librarians of NIFT Centres would be empowered to coordinate with National Information System for Fashion Design Technology (NISFDT) functions and services. The different authorities involved in the system should work for the desired goal and such strong and clear cut policy document need to be formulated spelling the aims and objectives for which such a system existed.

6.9 Internal Financial Sources

Each NIFT Resource Centres should share funding of the information system for its day-to-day activities. The financial resources and the proportion is not to be a barrier for functioning of the system, as all the centres of NIFTs are born to serve the common aims and objectives and the policies and procedures are similar to one another which are governed by NIFT Byelaws. The various components of internal financial resources would be

- The student Resource Centre fees;
- The Industrial membership fees;
- Institutional membership fees;
- Fashion Forecast fees;
- Per day use fees for the non members;
- Outstation membership fees;
- Panton colour and forecast colour services fees;
- Registration fees of the fashion forecast seminars;
- Reprographic service charges;
- Scanning charges;
- Over due charges; and
- The Government grants.

6.10 Governance

The Resource Centres of National Institute of Fashion Technology would work together while sharing their resources and services, can meet the users information needs efficiently and effectively. Interdependence amongst the Resource Centres can enrich the collection, and enhance the utility at the desired level. The interdependence should grow according to the logical and integrated style taking into account the operational and socio-cultural environment of the society, which is sounded in the vision statement. A complex system model of NISFDT is presented in Figure no.6.10.1

Basic Source: Underwood, C. Managing Change in Libraries and Information Services (1990, p. 21)

Complex systems model of MIS/PR

Figure 7.1.1

[Diagram showing the complex systems model of MIS/PR with various components such as technology, legal, economic, social, and environmental factors.]
It is observed that the information systems of various organizations currently performed an array of functions involving

Technologies (RISFDS) to know the utilization of the services. Evaluated amongst the Regional Information Systems for Fashion Design

specific set of functions is preferable. Such set of functions is to be
developing an information system for fashion design technology to fix a
physical structure as well as its logical organization. It is presumed that
The functions to be performed by a system determine its

and over and above the technology used to perform the functions.

Design Technology (RISFDT) are based on the scope of the Industrial
The functions of National Information System for Fashion

6.11 Functions and Services

address the barriers, if any cropping up in unexplored future. Systems are to provide a mechanism for identifying goals and objectives to

by person, The functions of Fashion Design technology Information
of Information System, an Organization controlled by principles and not
abstract from time to time. The effective governance provides the ability
complexities there would be an operational management body, which can
organizational set-up to avoid the complications. To address such
there need to be good and efficient governance at all levels of
seven Resource Centre users across the country. To achieve this objective
information by all seven Participating Regional Resource Centres, to all the
delivery services in the field, to provide instant transmission, or all the
Information Systems (FTIS) and the ownership problem will not surface: source to be treated as property of Fashion Design Technology avoids duplication and waste of resources. Such an acquired information acquires the information sources need to put up on the system instantly to same. Any Resource Centre component of the information system, the common good of the users and the targeted users are one and the all over the world. The Resource Centres of FTIS in India born to serve problem as it became obsolete in some other information systems existent here respective Resource Centres. The question of ownership is not a their respective Resource Centres. The question of ownership for all seven centers of National Institute of Fashion Technologies and services, organizational set up, aims and objectives are one and the same Technological (NISFD) are the duties and responsibilities, functions and Technology (NISFD) functions are broadly identified as:

The national Information System for Fashion Design

Various problems, needs of the users at desired level, also overcoming the plethora of
diversity of human expertise and successfully meeting the information numerous activities using variety of technical methods and having
Regional level: The proposed Information System for Fashion Design Technology (NISFDT) should be at two levels – the national level and the Head of the National Institute of Fashion Technology (NIFT) is in charge of the Head of the National Institute of Fashion Technology (NIFT). In respect of having unified procedures already followed by the Resource Centers of the proposed Information System for Fashion Design Technology (NISFDT) can make a successful headway in this endeavour.

The co-operative acquisition system amongst the Resource Centers is not
The various activities identified for such a proposed nodal centre are:

- Digitalisation cell
- Fashion Forecasting cell
- Regional Centre for digitisation cell
- Administrative co-ordination unit

India:

- Information Unit at Ministry of Textiles, Government of India
- Translation services
- Reprographic services
- Publication activities
- Documentation activities

Already implemented at NIFT system:

There exist a "National Resource Centre" (NRC), which is

The various activities identified for such a proposed nodal centre are:

- Organisational setup to co-operate and co-ordinate with the activities.
- National links with national systems. Such a nodal point should have new
  benefits and a national level all seven Resource centres should have
  access and share the global fashion and related information for the national
  "International Foundation of Fashion Technology Institute" (IFFTI) to
  linkages. The nodal centre have to establish a higher links preferably
  of its existing collection by all Resource Centre users of NIFT to
  information resources on fashion design technology to make optimum use
  for the reason of its infrastructure advantage and the historical collection of
  for the centre of National Institute of Fashion Technology at New Delhi
  information system (FITS) to be housed in the National Resource

The nodal point of the proposed Fashion design technology
The various activities of these sub-systems are identified

- Hind division to promote national language
- Seminar and Workshop unit
6.12.2 National Resource Centre (NRC)

The existing National Resource Centre at NIFT New Delhi have to be converted as a repository of wealth of fashion information sources by pooling the significant information sources on fashion design technology and its related subjects from all over the world. Such a decision calls for the integrated effort by both subject experts and the Library Professionals to decide what to be acquired and preserved and also made available for use to the user community. The National Resource Centre (NRC) should ensure that there exists at least one accessible copy in its holdings. Apart from this the National Resource Centre (NRC) should perform the various technical functions like acquisition, cataloguing, storage, preservation and conservation. A comprehensive proposal of National Information System for Fashion Design Technology is presented in Figure no.6.12.2.1
Figure No. 6.12.2.1
Comprehensive proposal of National Information System for Fashion Design Technology (NISFDT)

National Institute of Fashion Technology

Board of Governors

Director General

International Foundation of Fashion Technology Institutes

National Resource Centre

Allied national information systems

RISFDT CHENNAI
RISFDT HYDERABAD
RISFDT BANGALORE
RISFDT MUMBAI
RISFDT GANDHINAGAR
RISFDT NEW DELHI
RISFDT KOLKATA

Garment Export Houses
Fashion Buying Houses
Fashion Design Studies
Fashion Merchandisers
Individual Fashion Designers
Fashion Sourcing Agencies
Garment Quality Controllers
Regional Arts and Crafts Co-Op. Societies
Fashion Advertising Agencies
Fashion Brand Managers
6.12.3 **Documentation Services**

The activities under the head of documentation Services includes

- Act as depository of fashion and fashion technology related published and un-published works of the country and the world at large;
- Provide documentation services like translation, reprography both black and white and colour;
- Publish reviews, bibliographies, catalogues, serials related activities along with the co-ordination of system analysis centre of the information system;
- Conduct and co-ordinate in organising training programmes in the field of documentation related activities;
- Compilation of comprehensive automated union catalogue having provision to update at regular minimum intervals.

6.12.4 **System Analysis Unit**

The activities of this unit identified as

- To identify, collect, store, and make it available the information on fashion and fashion design technology and other related information;
- To analyse, synthesise and evaluate information and data for providing compilations like fashion mute boards, colour
indicators, fabric swatch boards, bibliographies, summaries, directories, state of the art reports etc;

- To communicate the information through various services like indexing, abstracting, current awareness, bulletins, news letters, fashion forecast seminars etc via online; and
- To address the user enquiries.

6.12.5 On Line Service Cell

The role of the online service centre of the information system for fashion design technology (ISFDT) should be the important and the following activities are been proposed.

- To identify and select the global information on fashion and fashion related information and the information sources;
- To prepare a comprehensive inventory with technical information and the services available with comprehensive subject indexes and writing of websites; and
- To guide the various users to appropriate sources of information while maintaining document on designers, kinds of fashion designs, seasons information, research evaluations and other related information through the system promptly.

6.12.6 Document Delivery Services Unit

The various activities are proposed for this canter is

- To collect the specialised fashion trend information and other related documents to redistribute amongst the Regional
Information System for Fashion Design Technology (RISFDT) against request and in anticipation via linkages;

- To make comprehensive compilation of published and unpublished information like creative arts and crafts from the various segments and provide to the users on proactive basis from the proposed system;

- To act as a linkage between professionals engaged in research in the related fields with filtered fashion related information;

- To evaluate and make fashion design information profile and the users profile to match the information with its potential consumers using the IT tools.

6.12.7 Supervisory Services

This is the extension service of the Fashion Design Technology Information System (FDTIS) this should include

- Organising visits and meetings with the ‘Regional Information Systems for Fashion Design Technology’ (RISFDT) to take stock of the functioning, conducting workshops/seminars/courses pertaining to handling and utilisation of fashion design technology information and other related materials; and

- To discuss, deliberate and identify the shortcomings, if any, and framing of queries and clients to the most relevant information and the effect of the use services of the information.

The National Information System for Fashion Design Technology (NISFDT) a nodal centre at national level can combined and
sharedhe activities with Regional Information System for Fashion Design Technology (RISFDT) and thus the units can run the system efficiently.

6.13 Regional Information Systems for Fashion Design Technologies (RISFDTs)

The Resource Centres of all seven centres of NIFTs should act as collateral linkages of the “National Information System for Fashion Design Technology” (NISFDT) having upper links with national centre, have to pool their resources and act as ‘Regional Information System for Fashion Design Technology’ (RISFDT) taking care of information needs of the users of their respective regions covering entire spectrum of the country. To achieve this the RISFDTs needs to establish the links at lower level covering all garment and fashion industries, individual fashion designers, fashion Merchandisers, Buying Houses, Sourcing agencies, Fashion studios etc. Such regional information systems (RIS) should perform their activities with renewed thrust with continuing the present practice of membership enrolment. The following divisions are been proposed for RISFDT:

- Regional Resource Centre (RRC);
- Documentation Cell;
- Reprographic Cell;
- Administrative Cell;
- Fashion Forecasting Cell;
- Digitisation Cell; and
- Translation Cell
The activities pertaining to online and document delivery duties would be taken care by the documentation unit of the RISFDTS along with the administrative unit. The regional system will be directly dealing with the national/nodal system. The proposed model of RISFDT is presented in the Figure no.6.13.1
The following are the main activities identified and proposed for RISFDTs in India. They are:

- To identify and mobilise various arts and crafts and other related fashion design information of the particular region along with meeting the information needs of the users;

- To supplement and complement the sourcing of the information resources like regional traditional costumes, various arts and crafts and other relevant information resources;

- To develop, maintain, up-date and publish the regional on-line union bibliographies;

- To provide reprographic service both colour and black and white;

- To enhance the existing service of current awareness for published and un-published fashion design information of the region;

- To guide and assist the development of fashion design information services to remote artists and craftsmen to modernise their activities;

- To provide translation services facilities form English to Hindi and in the particular regional language, if demanded.
6.14 Infrastructure Requirement

The required infrastructure to be decided in consultation with the experts taking into account of the entire spectrum of national information system for fashion design technology and its services to the user community of the entire nation. Such decided infrastructure to be procured following the procedures of the proposed system, preferably entering into a contract with the decided supplier, who is ultimately stand as pillar for the implementation part of the proposal. He should be in a position to attend to the various technical problems crop up during the process.

The following preliminary stages are identified for the implementation of the proposed fashion design technology information system.

- Digitisation of the resources;
- Consortia formation;
- Staff pattern and training;
- Funding for the information system development;
- Database creation; and
- Linkages

Implementation of fashion design technology information system proposal is a step in the system life cycle. It is the stage at which the conceptual become the actual. The reviews and re-reviews need to be done at every stage of implementation.
There are four dimensions identified and they are:

6.14.1 Dimensions of Digital Collection

Resources

1. It is a set of information tools to create such information
2. It is a set of information resources
3. It is an architecture
4. It is an extension service of IR

Digital materials. The digital collection thus can be recognized as follows:
interests designed and developed to provide convenient access to those
is digital objects accessible via the information system and retrieved by
like text, images, sounds, static or dynamic images. A digital collection
storage and retrieval system that manipulates digital data in any medium
information. They are an extension and enhancement of information

6.14.1 Digitalization of Information Resources
The impact of information technology on information services of Resource Centres of NIFT system is visible. The existing information handling practice need to be re-vamped in the light of changed IT scenario. The innovations in communication and information technologies to be imbibed in day-to-day activities of the Resource Centres. The developments certainly make impact on internal environment and the authorities should realise the change can bring and to create conducive environment while conducting training programme to the staff and making them aware of the importance. NIFT system need to realise the advantage of advancement in Information Technology and Communication Technology. The NIFT system should create necessary infrastructure with modifying the existing one in accordance with the progress-taking place from time to time.

The Internet and World Wide Web made the revolutionary impact on information accessibility. The electronic information resources can be accessed seamlessly without any geographical barrier. The key
collections of each Resource Centres can be identified and digitised for balanced access across the country. The in-house publications of NIFT may invariably digitised and hooked to the proposed NISFDT. The valuable resources like material collections can be digitised liberally as these items are not governed by intellectual property right (IPR). The purposes of considering digitisation are identified as:

1. To expedite the systematic development of procedures to collect, store, organise fashion design information resources in digital format from the point of view of NISFDT implementation;
2. To promote efficient delivery of fashion design information economically across the country through proposed NISFDT;
3. To encourage co-operative efforts to share the fashion design information resources through consortia;
4. To strengthen the communication and collaboration among the Resource Centres;
5. To preserve and conserve the national heritage and culture through digitisation of traditional costumes and textiles, accessories and other important inspirational items;
6. To be a role model in generation and dissemination of fashion design information in thrust areas of fashion design technology.

The various features identified for digitisation of information resources are;

1. Seamless access to large amount of fashion design information resources housed in all seven centres of NIFT Resource Centres;
2. Thrust on access to primary information in the field of fashion design technology;
3. Support multimedia content for accessibility of fashion design information across platforms;
4. Provide user-friendly interface to access the fashion design information;
5. Provide hypertext linkages to fashion design information databases;
6. Provide client-server architecture;
7. Support advanced search and retrieval of fashion design information; and
8. Linkage with other national and international digital library system in the field of fashion designing.

To achieve the development of digital collection and its effective use, the following technical points to be considered;

1. High bandwidth computer linkages supporting multimedia document transfer among the Resource Centres;
2. Open communication protocols (client-server) for fashion related information retrievals;
3. Information access tools like browsers, display and search engines;
4. Metadata describing the data and having facility to provide links to other fashion related databases;
5. Electronic publishing tools;
6. Data Compression;
7. Digital storage devices;
8. Scanning and conversion technology;
9. Multimedia for integration technologies;
10. Advanced information retrieval tools like indexing, routing and filtering of fashion designing information;
11. Inter-operability over the proposed NISFDT and RISFDTs;
12. Privacy and security; and

Emergence of powerful computers, access to electronic media, advanced telecommunication system, audio-visual technology and multimedia have given new opportunities for dealing with the fashion information collection, organisation and dissemination of vast amount of resources scattered among the seven NIFT Resource Centres. The proposed digitisation programme will certainly enable and may provide the proposed Information System for Fashion Design Technology (ISFDT) the best of the best facility to the user community to find their right information in a right format at the right time to pursue excellence in their activities.

6.14.1.2 Good Digital Collection: Some Principles

♦ A well defined policy based on explicit selection criteria are to be in place before efforts to build a digital collection among the seven Resource Centers;
♦ Collection description is important from the point of view of resource discovery and understanding the characteristics of fashion design information collections such as scope, format, restrictions on access, ownership etc.
6.14.1.3 Efforts at NIFT Centres

All seven Head Librarians along with one supporting staff have participated in a weeklong workshop specially organised for NIFT Head Librarians by “Vidyanidhi” a UGC sponsored ambitious project at Mysore University. The workshop was very much fruitful and enabled the Head Librarians to understand the creation of digital library collection. On successful completion of training programme in the month of February 2004, the individual Resource Centres started identifying the sources for digitisation. The Head Librarian, NIFT, Navi Mumbai made the presentation to the authority comprising the Director, Resource Centre committee members, administrators and others. In his presentation, the Head Librarian elaborated the items to be digitised, need, infrastructure requirement and the cost involved. The process of digitisation is set in to action and hoped that soon the infrastructure acquisition will take place.

6.14.1.4 Action Plan

All Resource Centres of NIFT system are in advantageous position to go for building the digital library, since the Head Librarians have undergone the training. There is a active initiation to start the installation of the computer system. The existing professional staffs need to be upgraded with recruiting well qualified supporting staff to initiate the task. The proposed digital library should act as gateway to content repository and as a clearinghouse for all the user requests for access to protected fashion design information resources.
6.14.1.5 Infrastructure Proposed in each Resource Centres

On the basis of the existing digital library initiatives, it is proposed that the following infrastructure, in each of the NIFT Centres;

1. Hardware
   • High end servers – 2
   • CD/DVD servers – 1
   • CD/DVD writer – 1;

2. Compatible operating system

3. Software

4. Scanners
   • A3 size - 1
   • A4 size - 1
   • Digital Camera – 1;

5. OCR software;

6. Outsourcing of fashion design digital resources;

7. Fibre optic connectivity;

8. Manpower; and

9. Training to staff and users;

6.14.1.6 Steps Involved in Digital Resources Creation

➢ Resource Centres should create the fashion design bibliographic database of print and non-print materials and such database to be made available via LAN and WAN through proposed NISFDT and RISFDTs;
➢ Acquisition of need based fashion related digital resources in the form of CD-ROM, optical disk and multimedia version;

➢ High bandwidth internet connectivity;

➢ Subscription to fashion related e-journals;

➢ Facility to access commercial databases via online in the related areas; and

➢ Creation of local digital content available within the Resource Centres.

6.14.2 Consortia Formation

The ever increasing diversified fashion information needs of the users and ever changing attributes of generated fashion information together the shrinking Resource Centre budget posed big challenges to the NIFT Resource centres. The increasing cost of fashion information resources fuel to the near static or semi dynamic financial resources of the NIFT Resource Centres. With this background a viable solution is proposed through the NISFDT and it can be named as "NIFTRC-Consortia." A website http://www.searchnetworking.techtarget.com mentioned, "Library consortia are a unique concept though it is practiced earlier but excelled with the diffusion of information technology and communication technologies”. The consortia in the field of library and information science got momentum to derive the benefit of collective bargaining and sharing of resources consequently render quality information services with increased or enhanced information opportunities.
The International Coalition of Library Consortia (ICOLC) as Consortium of Consortia with large number of individual library consortia all over the world. India is one of the IT power and is sensitive to the emerging changes. There exists the library consortia at national and institutional levels. The consortia like INDEST, DST, INFLIBNET, IIM, UGC-INFONET are some of the emerging consortia in India.

The idea of NIFTRC-Consortia formation among the seven Resource Centres of NIFTs deliberated in recently held Head Librarians meeting. The cost of the fashion information sources subscribed in each individual Resource Centres are exorbitantly high and the costs are keeping escalating year after year. In contrast to this the Resource Centre budgets are more or less static and put the Resource Centre to think of viable media to overcome from the problem. Over and above each individual Resource Centres subscribed to more or less similar fashion information resources, which can be avoided by forming the NIFTRC-Consortia and made accessible through proposed NISFDT and RISFDTs to phase out the posing problem with enhanced information services and financial resource.

The proposed NIFTRC-Consortia need to be agreed by all seven participating Resource Centres pooling their information sources under the umbrella of proposed National Information System for Fashion Design Technology and its collateral system to reach the lower links up to grass root users of the country. The ultimate goal of NIFTRC- Consortium is to achieve the desired objective. Such a proposed NIFTRC-Consortia will help to enhance the information services to its users at faster rate with increased information resources and strengthen the financial
situations of the Resource Centres, which can be used for furthering the developmental activities of the NISFDT.

6.14.2.1 Objectives of NIFTRC-Consortia

The following objectives are identified for the proposed NIFTRC-Consortia;

1. To achieve the standardisation in information storage and retrieval system among the Resource Centres;
2. To meet ever-growing fashion information users demand by accessing the national and international databases;
3. To cope with ever increasing fashion and its related information by establishing link with the leading fashion technology institutes and organisations;
4. To identify and to collect all fashion information sources available in print and non-print media including the materials collection of the Resource Centres for inspirational studies; and

6.14.2.2 Purpose of NIFTRC-Consortia

The following are the purposes identified;

1. Enhancing the fashion design information collection;
2. Avoiding the duplication of fashion journal subscriptions and other collections;

3. Reduction of the cost of fashion information collection among the Resource Centres;

4. Evaluation of users demand and need based collection development; and

5. Facilitating the sharing of fashion information resources by all users of all NIFT Resource Centres.

The following websites also give the information on library consortia and they are;

- http://www.sirsi.com  
- http://www.comptechdoc.org
- http://www.infolibrarian.com
- http://www.library.iitb.ac.in
- http://www.ifla.org
- http://www.concan.sols.org
- http://www.welc.org
- http://www.ohiolink.edu
- http://www.library.yale.edu

The proposed NIFTRC-Consortia have to look into the functioning of the existing national, international and other institutional consortia’s before venturing into the formation of such consortia to be a benchmark in the proposed endeavour.
6.14.3 Staff Pattern and Training

To take the task of increased responsibility by implementing the proposal, the authority of NIFT need to consider the upgradation of Resource Centre staff with giving face-lifting exercise by recruiting well qualified, trained and enthusiastic personnel to achieve the target of NISFDT and its collateral linkages in the country. To do this the following staff pattern is proposed;

- A Postgraduate in Library and Information Science with exposure to IT environment and its application to the field of information storage and retrievals as Information system Manager in the proposed NISFDT and RISFDTs;
- A Postgraduate in Library and Information Science with exposure in the modern concept of IT application and ability in organising the documentation activities as a Information Manager at NISFDT and RISFDTs;
- A Postgraduate in Library and Information science having knowledge of public relations and also the skill of publicity as library public relation officer of the NISFDT and RISFDTs;
- A Graduate with knowledge of multimedia skill and operations to act as Media Manager of the NISFDT and RISFDTs;
- A Language expert in Hindi, English and respective Regional Language each at RISFDTs in New Delhi, Chennai, Hyderabad, Bangalore, Mumbai, Gandhinagar and Kolkata to act as Translation Manager of the NISFDT and RISFDTs;
- A Postgraduate in Library and Information Science with knowledge of IT and its applications to the field of information
system and services to act as Information Scientist in the information unit proposed at Ministry of Textiles, Government of India;

- A Postgraduate in fashion designing from NIFT having knowledge of information system and services to co-ordinate and to conduct fashion forecast seminars for the industry in co-ordination with proposed RISFDTs to educate the industry about the movement of fashion, national and international;

It is to be considered here that the staff training as reorganisation programme, as the proposed national and regional information system for fashion design technology is proposed in the existing resource centres of the National Institute of Fashion Technologies. The first step in such staff training is to inform all the team members that the development of new information system, the objectives, criteria, benefit to the users, expanded responsibilities, the role, information system can play in national development, and the timetable for its implementation. The staffs also are informed of the existing information services and they need to understand that the current system should not affect the user community. The basic aim is to make the entire staff to be aware of the development to work satisfactorily from the inception of the new system.

The training programme should be designed to channel the initial curiosity into learning. The staff should understand the entire information system and the aims and objectives to take on the responsibilities successfully. The importance of contribution of each staff to the overall effectiveness of the functioning of the system be informed
and enlightened. The training programme with the suppliers of the system have to be integrated to understand the functioning of the system and to understand the information based activities and its delivery to the users.

Opportunities for staff reactions and their suggestions also form the part of the training. A staff-training manual describing the functioning of the information system and the newsletter can be designed to make the staff aware of the contents of the training. The training programme should be evaluated instantly on its conclusion to understand the reaction and the awareness gained by the staff.

6.15 Funding for Implementation of the Proposal

The proposed National Information System for Fashion Design Technology and its collateral linkages to be financed by the Ministry of Textiles, Government of India as one time capital investment for meeting the infrastructure of the proposal. Once the capital expenditure allocated by the Ministry to develop the fashion design information system under the financial supervision of National Institute of Fashion Technology, the NIFT need to follow the set procedures to comply with the rules and regulation, made accountable to the Government, of the incurring investments with detailed progress report from time to time. The proposal implementation to be completed prescribed time frame to avoid unforeseen ambiguities, and make the system, a benchmark in the greater interest of the nation.

On deciding the capital expenditure, NIFT need to focus on the revenue expenditure and recurring expenditure of the fashion design
information system. If the unforeseen cost escalations, if any, during the process of implementation, the NIFT need to work out on its own to meet the financial implications of such escalations with the due information to the Government. The present proposal of the financial investment is based on the good financial health of the national economy and the leadership quality NIFT can play in implementation and the value fashion design information can bring by transforming the national garment based activities via establishment of the strong information system, as fashion information is the life blood of the apparel and other related activities of the nation.

6.16 Database Creation

The data collected from all the Resource Centres indicate that the information resources what each one of them hold in their collection need to put in to the database. Keeping in mind the fashion design information system formulation and implementation the process can be expedited. The Resource Centres of NIFT have created their database for books and each one of them need to consider the urgency of covering the non-book materials in the form of database to facilitate the system proposal execution.

The fashion design information system of NIFT consists of number of sub-systems involved in the collection, dissemination and management of fashion information. Presently most of these sub-systems are manual and others are automated. A comprehensive database system needs to be taken up comprising the type of data; the software, hardware
and the personnel are the basic components need the deliberation and the decisions in the light of the proposal. A database of all seven Resource Centres needs to be completed in stipulated time, considering the interactive queries from the anticipated and existing users. The value, database carries based on the prompt delivery of information with enhanced user groups and the distributed decision making in the proposed fashion design information system, in the event of proposed concurrent access to shared data by all seven Resource Centres. Each one of the Resource Centres needs to put the data into the proposed system database as and when the information acquired or sourced to facilitate the system to work promptly and expeditiously from the point of view of the user community.

The proposed fashion design information system will be successful only when the inputs of the information resources and the users of all participating Resource Centres follow the uniformity in the process of database creation. From the responses of all seven Resource Centres of NIFT, it is clear that, except NIFT Resource Centre, New Delhi the remaining six Resource Centres are following similar management software to create the database of their respective information collection and the users.

6.17 Implementation and Evaluation of the System

Having completed the database creation of all the information resources and the targeted users of all seven centres of NIFT, having decided to establish the Information System for Fashion Design
Technology for the country, a care should be taken on its implementation part. As the nodal centre is been proposed at National Resource Centre (NRC) at NIFT, New Delhi, and the Regional Systems at seven centres of NIFTs across the country, the process of implementation should not affect the present information services of these centres. The present information delivery system to be carried forwarded by the present system along with a note of implementation of automated housekeeping activities at each Resource Centres first. The present methodologies along with modern technology for handling the information and operating services to the users, keeping in mind existing staff and physical resources of the institutes to be taken into consideration. The present strength and skills need to be utilised with adopting the modern effective technology with training the manpower to prepare to take on the wider responsibilities.

The Information Technology (IT) application calls for extra care and the blue print of the proposed system need to be understood threadbare keeping the wider scope of the information services and the enhanced information resources alongwith wider user community. It is proposed that the computer application need to be applied first to the every information based operations of the Resource Centres to analyse and understand the effectiveness for information retrieval. On gaining the confidence of the system support, the information storage and retrieval (IRS) can be effected. A phase wise implementation of NISFDT is presented in the Figure no.6.17.1
Phase III
Phase IV Pilot system  Phase I 1, Phase 1
Install Design and
pilot conduct
system system tests
Review and re-evaluate
total system
Yes
No
Can existing system be
required
Yes
No
Draft of
required
changes
Approval for system design
Yes
No

Figure no.6.17.1
Phase wise implementation of NISFDT

Basic Source: Vickery and Vickery\textsuperscript{17}: Information Science in Theory and Practice. London, Butterworths, 1987 Pg 220-221

(Revised and modified version)
6.18 Testing of the System

Two aspects of testing to be executed before implementing the system. The first one is the specifications of the system supplied and the requirements defined in the proposed fashion design technology information system to correlate the requirement and the actual supply, to understand the feasibility. Once the testing is done the crucial stage is affecting the linkages of all seven Resource Centres of NIFTs.

6.19 Management of Change

The success or failure of the proposed fashion design information system is strongly linked with the people involved in implementation and execution. The strong feeling of belongingness, will to work, adherence to the norms formulated, ability to cope up with ever changing technological and fashion design information sources attributes, interaction with the working group in the system about the functioning and the user expectations are some yardsticks to make the system successful. There should not be any dubious objectivity of the people who involved in the process of the system development. Human behaviour is strongly linked with the success or failure of the system. The failure of any system developments, attribute to the human errors and not the machine. There is no way that machinery to be persuaded to change but the human can. The prescribed specifications to be followed carefully by the system development people. The success of the proposal bears the
mark of the creators of fashion design information system. It is the reflection of how the care is being taken in implementing the system.

To conclude, the present working system in each Resource Centres of NIFTs are following more or less the similar practices for information processing which will be of benefit to smoothen the implementation part of the proposed system, developing professional core group preferably, involving all seven Head Librarians in the core group, empowering them to play their respective roles in achieving this noble task. To do this the authority needs to consider the proposal actively and provide the required infrastructure proposed, and training to existing and anticipated staff, to hook on to the system, and to be a benchmark in the endeavour.
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256
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