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Designing and Development of A Subject Gateway in The Field of Ayurveda

VIKAS SINGH*
RAJESH SINGH**

This paper is an outcome of the study made for designing and development of an Ayurveda subject gateway with a purpose to enlighten and strengthen the knowledge of Ayurvedic people. The paper explains the complete process of creating a Subject Gateway. The Dream Weaver / Ms-Front Page Software/HTML web authoring tools along with Photoshop and Paint software have been also used for modification, sharpening and improving the quality of graphics used in construction of Subject Gateway and PDF Acrobat professional software has been used to convert various file formats into PDF. Present gateway is trying to satisfy the information hunger of the professionals as well as the Scholars of the Ayurvedic People. It is believed that the present gateway is highly authentic and useful with the oceans of information at one place, reduces the burden of Ayurvedic scholars by giving needful links in the present electronic environment with the help of familiar language. This portal will also prove to be an effective means of conveyance and make information handy and accessible. The findings of the study will not only guide librarians and other new comer but also Researchers or other professionals to design and develop Gateway in other disciplines.

Keywords: *Research Library, Ayurveda, Gateways, Portal, India.*

0 INTRODUCTION

Subject Gateway is synonymously known as Subject Portal or simply portal. Subject Gateway has changed the information seeking behavior of the users. It is a browser based application that provides a web platform for users to improve inter-department collaboration and customer service. Portals are classified either as internal facing portals or external public facing portals¹. The major purpose of building the gateway is to make it

* Shri Ram College of Commerce Library, University of Delhi, Delhi-110007 India
vikas.singh@srcc.du.ac.in,

** Deputy Librarian, Central Library, University of Delhi, Delhi-110007, India,
rajeshzone29@yahoo.co.in

convenient for users to access the relevant material. It enables the users to initiate the searches more quickly with precise results². Now days, The users want specialized portals, interdisciplinary links, intelligent integration of all types of information and data inclusion of quality information, and single-point access to information/data. The subject gateways have established a new trend in collaboration³. Subject gateways provide information where each resource selected is evaluated against explicitly defined quality selection criteria. Resources classified using a range of schemes, e.g. -DDC, MeSH, Metadata (standard resource description) are based on a particular standard e.g. -Dublin Core and written resource descriptions are provided for each resource, often by library subject specialists; Currency of resources is checked by link checking software (e.g. ROADS), databases such as OMNI; Institutional commitments are the vital component for continued development of a subject gateway⁴. Researchers and academics do not always have adequate time, inclination or skills to surf the Internet for all the resources that could support their work. In the traditional information environment, human intermediaries, such as publishers and librarians, filter and process information so that users can search catalogues and indexes of organized knowledge. Subject gateways work on the same principle. They employ subject experts and information professionals to select, classify and catalogue internet resources to aid search and retrieval by the users. Users are offered access to a databases of internet resources descriptions which they can search by keyword or browse by subject area⁵. The purpose of this study is to make the Gateway as one-stop shop for Ayurvedic community. The study also aims to spread awareness on Ayurveda - the, mother of healing.

1 REVIEW OF RELATED LITERATURE

There are many articles and case studies available on Subject Gateways or Portals by various authors. A brief review of literature is given here. Paper entitled "E-learning portal for professional development in cancer care" by Shaw and others describes the development and deployment of a valued national e-learning resources being used by a wide range of health care professionals⁶. The study by Bhardwaj reveals the importance of gateway in managing the e-resources in college library system. It also explains the steps involved in building Subject Gateway². A patient portal offers patients secure access to selected information (determined by facility) that is created and maintained in the facility's electronic health record and pushed to the portal for access⁷. Portals have changed, their role as a gateway to the internet becoming all but

redundant as users have grown increasingly sophisticated and more confident in navigating on their own⁸. An online directory was developed for the teachers and teaching institutions of Aerospace Engineering in India with the help of 'Data Capturing Form' from all the teachers and teaching institutions of Aerospace Engineering in India by using Content Management Software (CMS)-based system for managing the content in dynamic environment⁹. The paper by Singh and Mahajan provides information about a well-structured chemistry and its allied subject portal, it also gives an outline of the chemistry portals available worldwide¹⁰. The aim of web enabled directory is to provide at one stop all the possible information related to library and information science faculties in the country¹¹. A study by Munshi focuses on the interoperability of digital repositories so that subject gateways could be generated using these repositories to facilitate one-stop shop and easy access to galore of resources contained in these digital repositories, thereby enhancing access to scholarly communications³. The paper by Kumar and Ganesan gives an out look towards a study to be undertaken to develop a global subject gateway portal with the help of an internationally integrated search strategy and content management system¹².

The paper by Raza and Eqbal described the need, objectives, technical information and methodology of designing and developing LISgateway¹³. "Terminology in Building Subject Gateway" attempts at describing the methodology used during initial stages of building a subject gateway¹⁴. The aim of Renardus is to build a single service allowing users to search and browse existing Internet-accessible scientific and cultural resource collections distributed across Europe¹⁵.

2 PURPOSE OF THE STUDY

There is a pressing need for a methodological approach towards instructing users for maximum utilization of available information resources and services. The purposes of this study are:

- (i) to find out and gather the online information resources related to Ayurveda;
- (ii) to increase the relevance and precision of information search results of information, by the users;
- (iii) to design a subject Gateways in the field of Ayurveda; and
- (iv) to make the information available at one platform in the field of Ayurveda.

3 METHODOLOGY

The method used for this study is “Design method”. The present study is also the combination of more than one research methods i.e.,

- (i) Design;
- (ii) Development;
- (iii) Evaluation and selection of information resources.

The unorganized and unstructured web-resources were collected, selected, evaluated and filtered. Further the resources were classified and given respective place considering their inherent characteristics in the Gateway. Further the methodology is divided into six phases i.e.,

- (i) Study of the subject
- (ii) Identification of information material
- (iii) Evaluation and selection of information resources
- (iv) Tools used to design Subject Gateways
- (v) Output of the study
- (vi) Post-production and revision

Each phase intermingles with one another step by step and having their own relevancy. The detailed studies have been carried out of each phase which are explained as follows:

4 STUDY OF SUBJECT

Before we start building a subject gateway in particular subject we need functional knowledge of that particular area or discipline. So we required functional and structural knowledge of Ayurveda. We also needed to know various terms are used in subject and various resources available in area. The best method to have this knowledge was to study the subject in detail and to look upon historical background and terminological development of subject. The structure of subject Ayurveda was framed with the help of different classification schemes.

5 IDENTIFICATION OF INFORMATION MATERIAL

There are various tools available to search the internet recourses in particular subject. We have used following tools for searching the internet recourses and construction of subject gateway in field of Ayurveda:

- (i) Drugs, Dictionaries related to Ayurveda which are freely available on Internet have been consulted.
- (ii) Usenet, User group, Mailing list, Listserv etc.
- (iii) Directory of open journals and other similar resources available on internet.
- (iv) Newspapers, magazines have also been consulted to locate the information on internet.
- (v) Research journals have also been consulted to locate the information on internet.
- (vi) Search Engines, Meta-search Engines, Directories and other Meta resources.

51 EVALUATION AND SELECTION OF INFORMATION RESOURCES

Meta/Information resources identified by above steps have been evaluated in terms of accuracy, currency, coverage, authenticity, scope, accessibility, ease of use, design and layout material etc. On the basis of the evaluation information resources have been selected for the formation of subject gateway. The links to this Information resource have been provided with full details.

52 POST-PRODUCTION AND REVISION

- (i) Spelling check of available content;
- (ii) Preparing web pages;
- (iii) Proper linking of web pages;
- (iv) Testing the links used;
- (v) Up-linking as Blog on the concerned website.

6 TOOLS USED TO DESIGN SUBJECT GATEWAYS

- (i) *Dream Weaver/Ms-Front Page Software/HTML*: Ms-Front Page/ Dream weaver web authoring tools have been used in designing the subject Gateway.
- (ii) *Photoshop and Paint*: Photoshop Software and paint application have been used for modification, sharpening and improving the quality of graphics used in construction of Subject Gateway.
- (iii) *PDF*: Acrobat professional software has also been used to convert version file formats into PDF.

7 SOURCE OF INFORMATION

For developing a subject gateway in any field we require information resources to be identified in that particular field of study. So the information resources available in discipline of Ayurveda were identified. The identification was carried out by using search engines, directories and subject gateways already in the field of Ayurveda in public domain. Following search engines, directories and subject gateways were used for identification of internet resources: (i) Google; (ii) Yahoo; and (iii) BUBL.

Further, the selected resources were grouped into two categories namely (i) General information resources; (ii) Subject specific information resources for inclusion in subject gateway out of the identified resources with above mentioned process.

71 GENERAL INFORMATION RESOURCES

This category includes information resources which provide information related to Ayurveda in general not subject specific. This information is related to different subjects included in the discipline of Ayurveda. The information resources are further divided into subcategories: (i) Primary resources; (ii) Databases; and (iii) Reference sources.

72 PRIMARY RESOURCES

The primary resources are sources of information in which information is published or appeared for the first time. The information is generated mainly due to R & D activities, events & happenings, idea of particular person and other activities. The primary resources of information include following types of information resources: (i) Conferences/discussion groups; (ii) Patents; (iii) Projects (ongoing and completed); (iv) Standard/quality control; (v) Software; (vi) Theses/dissertations; and (vii) Newsletters.

73 DATABASES

This division of general information resources contains information in form of data. The data may be textual, numerical or graphical. The databases are prepared by professionals after analyzing the other sources of information. The following types of databases are included in this category for purpose of subject gateway development: (i) Indexing/Citation Databases; (ii) Bibliographic Databases; and (iii) Scientific Databases.

74 REFERENCE SOURCES

Reference Sources are used to find an answer to a fact based query. The reference sources provide an answer to query or may also provide key to query. These sources are referred by the users of libraries to solve their day to day short answer queries mainly related to current awareness and general knowledge. The reference resources identified and selected for inclusion in subject gateway are following: (i) Dictionaries; (ii) Encyclopedias; (iii) Biographies; (iv) Directories/human resources; (v) Organizational/institutional resources; and (vi) Books.

75 SUBJECT SPECIFIC INFORMATION RESOURCES

This division of the subject gateway includes information resources which are specifically related to particular subject in the field of Ayurveda. The following types of information resources are included in this part: (i) Research journals and periodicals; (ii) Organizations and Scholarly Societies; and (iii) Tutorials and Courseware.

8 STRUCTURE OF AYURVEDA GATEWAYS

All the information resources divided in categories and subcategories which are mentioned above are included in all the Subject Gateways designed in various disciplines. Hence, this Gateway contains the following six links: (i) Home; (ii) Ayurveda; (iii) Journals; (iv) Useful Links; (v) Gateways; and (vi) Contact Us.

81 HOMEPAGE

Home page is a web page that serves as a starting point on a Web site. A home page typically contains hypertext and navigation buttons that allow the user to navigate the site by clicking them with a mouse and invoking hyperlinks to other pages and even other sites. For details see hyperlink, hypertext, and WWW¹⁶.

Figure F1 explains the history of Ayurveda along with a beautiful quotation¹⁷ which is present on the home page. Homepage of the Gateway enables the users to jump to any page within the gateway with the help of the buttons present.

82 OVERVIEW OF AYURVEDA

The next button (second button) of the Gateway is the soul of the Gateway, putting life to the gateway which contains the information related to Ayurveda and its benefits in general.

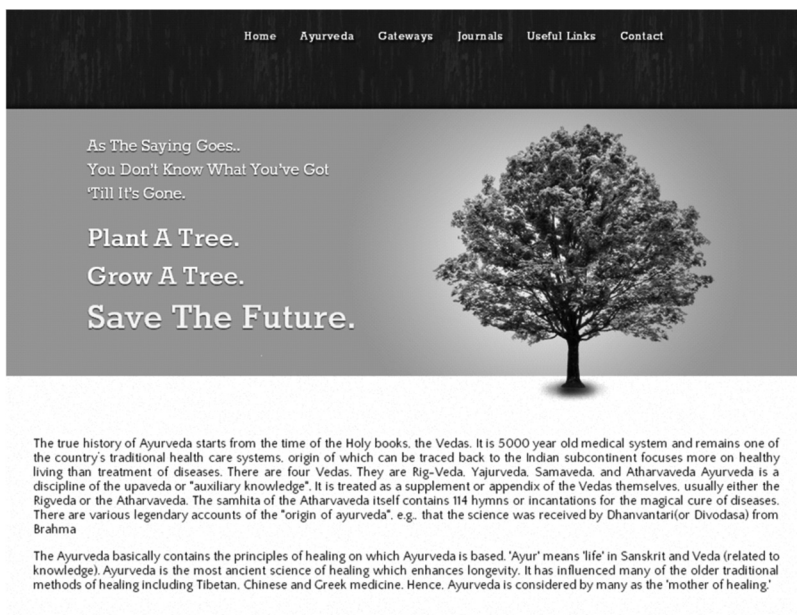


Fig. 1: Demographical Profile of the Respondents.

Figure F2 presents the overview of Ayurveda and explains in brief the Need, Objectives, Basic Principal of Ayurveda, Disciplines of Ayurveda,

The true history of Ayurveda starts from the time of the Holy books, the Vedas. It is 5000 year old medical system and remains one of the country's traditional health care systems, origin of which can be traced back to the Indian subcontinent focuses more on healthy living than treatment of diseases. There are four Vedas. They are Rig-Veda, Yajurveda, Samaveda, and Atharvaveda Ayurveda is a discipline of the upaveda or "auxiliary knowledge". It is treated as a supplement or appendix of the Vedas themselves, usually either the Rigveda or the Atharvaveda. The samhita of the Atharvaveda itself contains 114 hymns or incantations for the magical cure of diseases. There are various legendary accounts of the "origin of ayurveda", e.g. that the science was received by Dhanvantari (Divodasa) from Brahma. The Ayurveda basically contains the principles of healing on which Ayurveda is based. 'Ayur' means 'life' in Sanskrit and Veda (related to knowledge). Ayurveda is the most ancient science of healing which enhances longevity. It has influenced many of the older traditional methods of healing including Tibetan, Chinese and Greek medicine. Hence, Ayurveda is considered by many as the 'mother of healing'

F 2. Screenshot for overview of Ayurveda

Types of Treatment and Benefits of using Ayurveda.

9 MAJOR GATEWAYS

Keeping in view, the increasing demand of the specialized Gateways, more and more subject gateways should be designed and developed to provide ease to the searcher and researcher of the information. There are some other well-known gateways which are available in other disciplines

also presented in 3rd button which may be useful for the users of the Gateway in some other way. This mentioned button explains some of the renowned Gateways in various disciplines in India and abroad i.e., Digital Helpline for Ayurveda research articles, AYUSH Research Portal, Social Science information gateways, Galaxy, Direct Search, Academic Information, Bubl, and Biome etc. They are highly useful for the users/researcher all over the world.

91 OPEN ACCESS AYURVEDIC JOURNALS

The main goal of Open Access is to provide free access and re-use of scientific knowledge in the form of research articles, monographs, data and related materials. The open access journals are the journals which are freely available to use. The Directory of Open Access Journals (contain free, full-text high-quality scientific journals). The Indian Medlars Centre (IMC), has taken pioneering step of putting Indian Biomedical journals accessible to a single platform. IndMed, also provides abstract level information from more than 70 journals.

The directory reveals the open access journals available in the field of Ayurveda i.e, *International Journal of Ayurveda Research*, Indian Council of Medical Research *National Institute of Indian Medical Heritage*, Papers Antimicrobial, *Indian Journal of Medicinal Plants Research International*, *Journal of Nursing and Midwifery*, *Journal of Veterinary Medicine and Animal Health*, *International Journal of Nutrition and Metabolism*, *Journal of Cell Biology and Genetics*, *AYU Journal*, *IndMed*, *Clinical Trials* etc.

10 AYURVEDIC COLLEGES IN INDIA

The present study focuses on each and every aspect of Ayurvedic knowledge, so it is very important to know colleges available in the country, those are involved in providing education on Ayurveda. An attempt has been made to list all the colleges available along with their place so that pupils, scholars could reach to the place and use their library for Academic/ Research purposes.

1. Acharya Deshabhushan Ayurvedic Medical College Shamanewadi, Chikodi, Dist: - Belgaum
2. Government Ayurveda Medical College, Nagercoil
3. ALN Rao Memorial Ayurved Mahavidyalaya, Chikmagalur
4. Ayurved Mahavidyalaya, Kolhapur

5. CB Guttal Ayurved Medical College & Hopital, Dharwad
6. Dadri Education Trust Murarilal Raiwaria Ayurved College, Bhiwani
7. MNR Ayurveda Medical College Fasalwadi, Sangareddy, Medak (AP)
8. PN Panickerauhuda Ayurved Medical College, Kaaragod, Kerala
9. Rural Education Trust's Ayurvedic Medical College, Raichur

These are some of the colleges listed above along with their place name available all over the country have been compiled to provide ease to the people associated with the discipline and also for those willing to get to know about Ayurvedic Colleges along with their place. For full list look into URL: (<http://ccraslibrary.webs.com>) can be accessed.

11 USEFUL LINKS AND USEFUL RESOURCES

Useful link is the button enriched with various online citation tools for automatic bibliography and also with some other web resources. The link contain various online citation tools for automatic bibliography along with some other web resources i.e, EasyBib - Free Bibliography Maker, BibMe - Free Bibliography Maker, Citation Builder, Citation Machine, EndNote - Bibliographies Made Easy, Online Citation Wizard, Online Works Cited Bibliography Composer, Chicago Manual of Style, including some other web resources (Online PDF Converter, Online PDF to Word Converter, Online Word to PDF Converter, Online Plagiarism Checker, Online Plagiarism Detection Tool etc.

Furthermore, useful resources give a bunch of useful tools which are very useful. Without these tools one cannot think of research related activities. It provides the list of dictionaries (Dictionary of Ayurvedic terms, Dictionary of sciences, Cambridge online dictionaries), list of Thesaurus (online thesaurus, Visual thesaurus) Open access resources (Open access initiatives, Open archive initiatives, Open DOAR, Open thesis, Directory of open access journals) and some other resources like *Encyclopedias of Ayurveda*, Ayurveda Information Gateways, Alternative medicine directory along with useful Ayurvedic websites etc.

12 CONTACT US PAGE

This page is specially designed for the users facing problem and willing to give feedback. The users can also share their views regarding

The screenshot shows a website interface with a dark navigation bar at the top containing links for Home, Ayurveda, Gateways, Journals, Useful Links, and Contact. Below this, the page is divided into two main sections: 'CONTACT' and 'SEND US A MESSAGE'.

CONTACT

CONTACT US
For further inquiries, help or suggestions. You may contact us through the following:

- 925020742
- Vikas@yahoocom
Vikasingshbiv@gmail.com
- Vikas Singh, Library Consultant
CCRAS, Ministry of Health and Family Welfare

SEND US A MESSAGE

This Page has been Designed to help the Users to give their feedback and they can also suggest some more resources that they would like to be available at this site by just filling the below mentioned form.

FIRST NAME LAST NAME

EMAIL RETYPE EMAIL ADDRESS

SUBJECT

MESSAGE

F5 Screenshot for Contact us Page

inclusion/deletion of the resources available on the Gateway.

Figure F5 provides the feedback/appreciation page where the user can send their valuable feedback by just filling a simple form which contains information i.e, Name, E-mail ID, subject and finally, the message which he would like to send. The web master also can be contacted on the phone number or E-Mail Id given in left side of the form.

13 OUTPUT OF THE STUDY

The present Subject Gateway or portal clearly indicates that there is a need to develop some more Subject Gateways in various required disciplines. To survive in the present electronic/web/library 2.0 environment, there is no substitute or escape to avoid such Gateways with state-of-the-art web technology, particularly, Subject Gateways. Only developing Subject Gateways could meet the web challenges to strengthen library services.

This Subject Gateway has been reaping its benefits to the students, doctors, practisnoers, faculty and researchers in the area of Ayurveda to find reliable and comprehensive information in just a single click. Further the gateway can be accessed by anyone 24×7^{18} under the heading Subject Gateways.

14 CONCLUSION

Variety of problems faced by the scholarly community in discovery,

access and delivery of pertinent information/data in their respective areas of interest, focuses on interoperability of digital repositories so that subject gateways could be generated using these repositories to facilitate one-stop shop and easy access to galore of resources contained in these digital repositories, thereby enhancing access to scholarly communications³. Portal is a website that offers a broad array of resources and services and is intended to be the main point of entry to the internet for the users. Besides, hosting a catalogue of websites, a portal site may offer other enticements to the users such as e-mail, forum, search engines, calendars, and on-line shopping malls so as to retain users at the site and to draw repeat visitors . The increased use of the library is the high watermark of our technological age and very soon users of the library will realize that being acquainted with Subject Gateway is winning half the battle for satisfying the hunger of information need.

These resources used in designing of the Subject Gateways clearly shows that lot of enhancements and improvements could be done on the basis of the conclusion drawn after the evaluation. Various suggestions have been given and light on the areas for research has been thrown. The future plans include updating of the Ayurveda Subject Gateway on a regular interval for the addition of new information to meet the users demand.

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