

A Study on the Importance of Web Design, Development and Security in WSDM towards Web Development

Sandeep^{1*} Dr. Yash Pal Singh²

¹ Research Scholar of OPJS University, Churu, Rajasthan

² Associate Professor, OPJS University, Churu, Rajasthan

Abstract – The Web Semantic Design Method (WSDM) is a strategy for designing websites that uses models to portray the informational, useful, and applied structures of the websites in detail. As a great deal of websites are putting forth a comparable kind of usefulness and information, a ton of these informational, useful, and theoretical models are being repeated for different endeavors and different projects. To take care of this issue, the idea of design designs, for instance reusing existing models to tackle reoccurring issues, was presented in this system previously. Be that as it may, these design designs were related to extremely low-level models, and addressed the navigational and practical structure of unimportant functions and streams. In this way, the test was to elevate them, which suggests, portraying design designs from a bigger sum perspective, specifically, in light of "site classes". Without a doubt, for one explicit sort of site, websites share a couple of basic variables for all aims and reason. These basic commonalities can be separate as "design designs". For example, all "internet business" websites share certain functionalities, for instance, shopping truck, item correlation, checkout, etc. Having such an unusual state meaning of design designs dependent on site types would be truly valuable, in light of the way that directly off the bat, it is comprehended what ought to be joined into the design of a site of a particular classification, and also, having a point by point model of an irregular state design makes the design system for websites of a comparative sort much faster.

Keywords: Web design, Security, WSDM

-----X-----

1. INTRODUCTION

Nowadays websites are the most convenient way to present and disseminate information to the maximum number of people in the world. The web browsers are the means to render the information on a webpage, the basic building blocks of a website which has the basic structure (architecture) written in web Program. In today's Information age, almost all organizations have a website with their manifesto and their product and service information. It is probably the most economic and the most convenient way to disseminate information all over the world. We will define the website as a big container of relevant and related information arranged in some logical way.

Web design can be best viewed as a client-server architecture, where a client machine requests for service(s) and the server validates the request to access service, probably from a database.

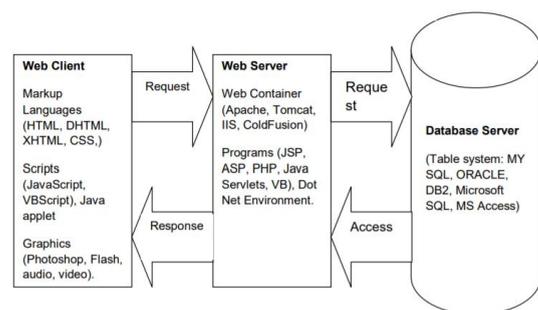


Fig 1 A typical structure

Web Semantic Design Method (WSDM)

WSDM speaks to Web Semantic Design Method and is a crowd of people driven web improvement methodology that uses a ve-step process starting from a mission detail and conclusion with the execution. It gives a sensible methodology to develop the web structure as the yield of each stage is the commitment for the accompanying. The first WSDM method will be used as

explanation behind the new methodology anyway will be changed where critical to meet the goals of this thesis. We will give a short graph of the different advances (Figure 1) of the first WSDM method [1].

WSDM is a website design methodology that was made by Professor De Troyer and Leune in 1998. WSDM at first signified "Web Site Design Method", anyway during the time the methodology was extended in different ways and now speaks to the "Web Semantic Design Method". The significance of WSDM and what makes it discernable from other design methods, is that it is "gathering of people driven".

Another favored viewpoint of WSDM appeared differently in relation to other design methods is that, WSDM is in reality a design methodology that not simply gives displaying locals to delineating a website or web application, yet moreover gives productive principles to the progression. The WSDM methodology contains a couple of stages including: statement of purpose, crowd displaying, reasonable design, usage design finally execution. All of the referenced stages fuses distinctive sub stages, which make the bring up call attention to out of that particular stage.

2. REVIEW OF LITERATURE

Joicy and Verghese (2011)[3] made an endeavor to assess, how the R and D Institutions in India present their content on the websites. Out of the 246 Research and Development institutions distinguished from the website http://www.indiaedu.com/look_into_organizations/explore_foundations_india.html, 77(31.30 percent) properly functioning websites were broke down. The investigation uncovered that majority of the Research and Development institutions in India provide informative connects to contacts, copyright, news and occasions, RTI and history. A couple of websites provide opportunity for user interaction as feedback. It is also found that majority of the innovative work institutions websites are a great idea to explore and discover information.

Karla and Verma (2011)[4] made an endeavor to assess the library websites of chose investigate institutions in India both quantitatively and subjectively based on Web Impact Factor, pre-characterized check rundown of indicators, and online questionnaire overview. Concentrates the current procedures and practices of evaluation indicators of websites at national and international dimensions as reported in the writing Data uncovers that there are numerous inconsistencies and terminological issues and numerous viable methodologies/systems for websites evaluation which are rehearsed at international dimension however are not being utilized in such examinations in India. Two major quality components viz. 'ease of use' and 'value' covering the various evaluation

indicators at 'demonstrative' and 'illustrative' level have been inspected. Study concludes that there is scope of further research for developing and institutionalizing the indicators with different evaluation viewpoints at various dimensions. Concentrate recommends the dynamic and critical role of library and information researchers in the evaluation process from design to content administration in future.

Goltaji and Shirazi, (2012)[5] Research focuses are among the most important establishments in a logical society. Utilizing the AltaVista web index and webometric methods, this exploration endeavors to discover the performance and effect of the top research focuses of the Islamic World Countries. The outcomes uncover that from 57 countries, 40 of them didn't have any examination focuses scored in webometric positioning and the remainder of them had not been scored well in the webometric positioning model. In this examination, we rank research focuses' websites dependent on some webometric indicators, for example, number of pages, linkages, WIF and Revised WIF.

Discoveries show that the positioning of the websites dependent on the WIF and reexamined WIF is almost unique and there is a strong correlation between the quantity of research focuses in the Islamic countries that were scored in webometrics and their positions dependent on countries' GDP

Sonwane (2012) [6] clarifies the importance of providing quality information, rapidly and stick pointedly in Scientific, Educational and Research Institutions. This addresses information issues of the decision creators, examine scholars and researchers for their expected reasons. Because of the developments in IT, e-resources are assuming important role in dissemination of knowledge. About each organization is developing its own web website. The users keen on seeking after an examination vocation in Scientific and Research region get to the websites for genuine and dependable information. To decide esteem or goodness of information provided suggests the need to assess the information provided on their web locales on Internet. The present examination "Websites of Scientific Research Institutions in India: An Analytical Study" was completed on 277 Scientific and Research Institutions and libraries of these institutions. Information was collected from their web destinations just as utilizing a structured questionnaire independently designed for web designers. The data was tabulated and broke down. The rating framework was developed and has been introduced.

An investigation conducted by **Sami and Basavaraj (2013) [7]** explores library websites of R&D institutions located in Bangalore for their

design features. Web evaluation rules recommended by Keevil have been utilized for evaluation. Consequences of the investigation show that websites are enthused about providing their essential subtleties. Overall content organization of the websites isn't sufficient. Utilization of sight and sound has been dismissed by majority of the libraries.

Another investigation by **Sami and Basavaraj (2014) [8]** focused on assessing how library websites of Agriculture explore institutions are structured to guarantee their ease of use and value. General information about library, adequacy of the homepage, content presentation, sort of navigation utilized, kind of user help made accessible, seek office provided and esteem additions included on the websites are the parameters on which evaluation is completed. Study has brought about couple of major observations. Initial introduction of the homepage is basic for fruitful user satisfaction and it makes user to return to the website. Regardless of its quintessence it has not been accomplished generally. So also, Study uncovered that there are not many more zones where improvements are required.

Utilization of illustrations and sight and sound for powerful content presentation, virtual assistance to users, office to seek inside the website and WWW and provision for OPAC on library websites are to name few.

3. RESEARCH OBJECTIVES

1. To look at the possibility of WSDM
2. To examine the present confinement in Website Designing
3. To join WSDM with Content Management System to improve the capability
4. To examination WSDM-Lite and its instrument support
5. To research the adequacy of the balanced type of WSDM

4. RESEARCH METHODOLOGY

The research work presented a new adjusted WSDM system, WSDM-Lite. In this proposal we examine a new lightweight WSDM, called WSDM-Light, for the advancement of web applications utilizing a CMS, while still intently adhere to the standards of the first WSDM. As an augmentation of this new philosophy, we give a supporting tool which accelerates the modelling stages even more. We likewise talk about in no time other conceivable advantages of the tool such as detectability, collaboration, and (fractional) website age.

Mission Statement Specification

The statement of purpose particular stage characterizes the boundaries of a venture and isn't straightforwardly related to the usage by methods for a CMS. In this manner this stage continue as before as in the inheritance WSDM strategy and solicitations the web engineer to indicate the reason, subject and target users of the framework[9].

Website Genre Selection

To an ever increasing extent, websites have a place with a website class. By determining a website sort we define the extent of the undertaking, indicated in the mission proclamation particular, further. Utilizing this classification we can look into details in some kind of repository and reuse work of others to accelerate our process.

Audience Classification and Characterization

The WSDM-Lite strategy is still an audience-driven approach so the audience modelling is still an early and important stage in the technique. The audience of the website is as of now indicated at an abnormal state of abstraction and isn't affected by the utilization of a CMS later on. Consequently the audience modeling stage will continue as before as in the legacy WSDM version [10].

Conceptual Modelling Phase

The purpose of the conceptual modelling is to design the website independent of the real execution. We will make models to determine how our website will be organized however these models ought not to be founded on any CMS that could be utilized to execute the website.

4. DATA ANALYSIS

Mission Statement Specification

The mission statement specification stage defines the boundaries of a project and isn't legitimately identified with the implementation by methods for a CMS. Therefore this stage will continue as before as in the heritage WSDM method and solicitations the web developer to indicate the purpose, subject and target users of the framework.

In the main period of the method, the mission statement for the web framework should be formulated. To develop a fruitful web framework, it is important to initially think about the purpose of the web framework otherwise there will be no proper reason for settling on design decisions, or for assessing the adequacy of the web framework. E.g., for a company, the purpose may run from just "having a personality on the Web", to

"publicizing some of its products", to "provide an undeniable e-shop"; for open and local authorities it might extend from providing general information to an undeniable e-government framework that allows to mastermind official issues (e.g., apply for official documents) utilizing the Web. The purpose should be established in consultation with the various stakeholders

The various stakeholders should also concede to the topics that should be covered by the web framework. Regardless of whether the purpose is clear, it might be important to unequivocally name the topics the framework will manage.

For instance, a company may choose to offer on-line information about products yet only for their products in a more expensive rate go. Another precedent is a secondary school that chooses only to offer information about their education framework and courses, however not about their research exercises [11].

Furthermore, also the objective users should be recognized. On a basic level everybody can visit an open web webpage, also people for which the web website isn't pertinent. However, it is impossible to fulfill the expectations of every possible visitor. It is smarter to focus on the users needed to make the web framework fruitful, called the objective users. For instance, consider a company that only sells very specific specialized things. For this situation, the web webpage should focus on the people that need these products. These people are likely not an overall population yet rather probably extremely specialized and concentrated people. When fabricating a web framework for a college, an important group of users you probably need to address are potential understudies

Website Genre Selection

In the literature on the subject there is more or less agreement on what document genre means and how different genre classes can be characterized. And, at first sight, it seems to be canonical to apply this common understanding to the World Wide Web: Certainly, "advertisement" seems to be a useful genre class, as well as "private homepage". On second sight, however, several difficulties become apparent: Where does a presentation of a company's mission end and where does advertisement begin? Or, does a scientific article on a private homepage belong to the same genre like a photo collection of mom's lovely pet? Our proposed definition of genre classes for the World Wide Web is governed by two considerations:

- Usability from the standpoint of an information miner, which can be achieved by what we call "positive" and "negative" filtering [12]. With the former the need for a focused

search can be satisfied, while the latter simply extends the idea of spam identification to a diversified genre scheme.

- Feasibility with respect to runtime and classification performance

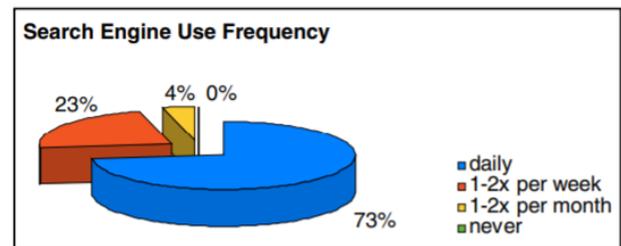


Fig 1 Frequency of search engine use about three quarters of the interrogated students use a search engine on a daily basis

Syntactic Group Analysis

A syntactic group analysis yields linguistic features that relate to several words of a sentence. Such analyses quantify the use of tenses, relative clauses, main clauses, adverbial phrases, simplex noun phrases, etc. Since the identification of these features is computationally expensive, we have omitted them in our analysis. Dewdney et al., however, also include the transition in verb tense within a sentence in their analysis

5. CONCLUSION

The original WSDM version isn't compatible with implementations utilizing a CMS since they on a very basic level vary in the dimension of abstraction wherein web application are modelled in WSDM and the dimension of control of the configuration of a CMS. In section 4 we introduced the concept of web design patterns which coordinate on a conceptual dimension the modules that can be introduced in a CMS. A feature assembly outline of these WDP was utilized to delineate the global structure of a web application. The navigational design and the site structure design stages were adjusted to the utilization of this feature assembly outline in the conceptual stage to follow the philosophy of the original WSDM version in which the output of a stage could be utilized as input of the following. The utilization of a CMS altogether diminishes the workload of executing a web application. The utilization of WSDM-Lite decreases the workload of modelling such an application in contrast to a WSDM design.

Website sort patterns were introduced which contain commonly utilized global website structures, which were modelled utilizing the feature assembly chart and WDPs. Utilizing website kind patterns a designer no longer needs to model a web application from nothing however

by personalizing a commonly utilized design. This diminishes again the workload of a web developer.

6. REFERENCES

1. A Ginige and San Murugesan (2001). Web engineering: an introduction. *MultiMedia, IEEE*, 8(1): pp. 1418, Jan 2001.
2. A. Finn and N. Kushmerick (2003). Learning to classify documents according to genre. In *IJCAI-03 Workshop on Computational Approaches to Style Analysis and Synthesis*, 2003.
3. Joicy, A. J., & Verghese, Rekha Rani (2011). Websites of research and development institutions in India: A Webometric study. *International journal of digital library services*, 1(2), pp. 90-104.
4. Karla, Jaya & Verma, R. K. (2011). Evaluation Indicators of Library Websites of selected Research Institutions in India. *Annals of Library and Information Studies*, 58 (3), pp. 139-150.
5. Goltaji, M. & Shirazi, Serati. M. (2012). The Situation of top Research Centre's Websites in the Islamic Countries: A Webometric Study. *International Journal of Information Science and Management*, 2(2), pp. 71-85.
6. Sonawane, Shashank (2012). *Websites of Scientific and Research Institutions in India: An analytical Study*. Saarbruecken: LAP LAMBERT Academic Publishing
7. Sami, Lalitha, K., & Basavaraj, S. (2013). Evaluation of Library Websites of R&D Institutions in Bangalore. *Indian Journal of Information Science and Services*, 7(2), pp. 66-73.
8. Sami, Lalitha. K., & Basavaraj, S. (2014). Evaluation of Library Webpages of select Agricultural Research Institutions. *E-Library Science Research Journal*, 2(7), pp. 1-7.
9. Sven Casteleyn and Olga De Troyer (2002). Structuring web sites using audience class hierarchies. In Hiroshi Arisawa, Yahiko Kambayashi, Vijay Kumar, HeinrichC. Mayr, and Ingrid Hunt, editors, *Conceptual Modeling for New Information Systems Technologies*, volume 2465 of *Lecture Notes in Computer Science*, pages 198-211. Springer Berlin Heidelberg.
10. Takeshi Yoshioka, George Herman, JoAnne Yates, Wanda Orlikowski (2001). Genre taxonomy: A knowledge repository of communicative actions, *ACM Transactions on Information Systems (TOIS)*, v.19 n.4, p.431-456, October 2001
11. Vasantha, Raju N., & Harinarayana, N S. (2008). An analysis of usability features of library websites. *Annals of Library and Information Studies*, 55 (2), pp. 111-222.
12. Wendy Lehnert (2008). "Web 101 Making the Network for you", ISBN: 0201704749. 2. Andrea Steelman and Joel Murach, "Murach's Java Servlets and JSP: Murach Books, 2nd Edition", ISBN 978-1-890774-44-8.

Corresponding Author

Sandeep*

Research Scholar of OPJS University, Churu, Rajasthan