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A Study on Assessment of Search Features and Their Consequences in Digital Libraries

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Abstract

This muse which was imply out to tax the pry into shape and their consequences in digital libraries, investigate 32 search characteristic and 29 expand characteristic in 8 digital libraries (which embody Government, Private and Deemed to be Universities). Results show that as far as investigate and display features are affected to digital library.

Keyword: Digital library; Search feature; Display feature.

INTRODUCTION

Human-computer interaction is a branch of knowledge which deals with data processor designation, assessment, and act for nominal usage and the ponder of the phenomena around it. The main aim of this instruction is to develop the interaction between computers and their users by means of producing more suitable and practical computers which are in assent with users' needs. One of the issues in the field of interaction between man and information processing system is the assessment strategies and the illustration between interfaces. Interfaces may be said to do as a medium between the users and the databases, and in order to execute this, there needs to be a religious understanding of the ultimate system users` needs. It's a usual fact that interface is a determining interaction between the users, so it seems that like any other interface, this one also should be continuously charged so as to compel a clear intelligent

Identifying weak points and challenges regarding the relationship with digital libraries, will lead the parties involved, including users, librarians, computer experts, and even cognitive psychologists, to find a solution to this problem. This will encourage them to try their best and design new methods which are more effective and practical. Novelty of digital libraries and their rapid growth have caused so many researchers to study the field. As Jeng (2005) mentioned, however, attention toward criteria for assessment of digital libraries, and particularly toward their users has been low. So there seemed to be lack of studies in the field, especially in Iran; and this has caused the authors of the present article to assess search features and

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their consequences on digital libraries in Iran. Fundamental questions of this study are as follows:

- Which digital library has the most search features?
- What are the search features which are common among most digital libraries?
- Which digital library has the most display features?
- What are the display features which are in common among most digital libraries?

LITERATURE REVIEW

Nowadays, discussions on digital libraries have become one of the most important ability of the fields such as librarianship, instruction technology, and computer sciences. There has not been much muse being done on the field of the instant contemplation, so we may just name those muse which have a finish attitude towards the subject.

Smith (2000) has studied the characteristics of digital libraries and suggests that digital libraries must have a wide spectrum of search features, including Boolean search, Proximity search, Truncation search, etc. he chose11 digital libraries and compared their search features. His findings revealed that digital libraries in that stage, mostly did not acquire the search features needed. For example, less than half of the libraries investigated had the ability of vocabulary control; less than half of the foregoing libraries had proximity searching capacity; only one library was capable of browsing keyword index; and none of them would let the searcher refine his first search.

Also, ***Andrew Chulk and colleagues (2003)*** examined three journal databases according to three general characteristics including interface, content, and cost in order to determine the preferences of these databases for academic and public libraries. Components such as usability, search capabilities, quality of database help from interface; components such as scope, currency, comprehensibility, accuracy and consistency, citations and abstracts of database from content, were examined.

In a comparative study which was done by ***Vilar and Zumer (2005)*** to determine the strengths and weaknesses of four electronic full-text databases offering web-based journals, components of user friendliness including the vocabulary and type of the interface, navigating and personalizing the display screen, and features of efficiency consisting of choosing the database, search formulation, result processing, and help options were all examined. Findings revealed that despite the similarities between the four databases examined, there were also differences. Much of the differences were seen in search formulation, and vocabulary and type of user interface.

Su (2005) has investigated desirable search features of web-based scholarly e-book systems. He considered two general usual search and browse possibility, to be the as desirable features of e-books. Nabavi (2006) studied search features in 14 digital libraries (10 digital libraries outside Iran, and 4 inside)using a check list. The results of this study showed that these digital libraries did not act the same in providing their users with different search facilities so that some digital libraries such as American Memory and ECM provided 8 out of 9 search features which were considered in this study, guiding the users more efficiently to access their intended sources. But Classic Articles digital library did not provide its users with any of search features, and therefore was considered to occupy the least position in the assessment list.

In another study ***Alijani and Dehghani (2006)*** compared and examined free versions of Eric and Search Eric with commercial versions of Ebsco and First Search, from ERIC. A check list consisting of five items of general information, search features, display options, retrieval options, and unique features, was used to assess the databases in this study. Findings showed that considering the five mentioned items, versions of Ebsco, First Search, Search Eric, and Eric respectively had the most features.

Alijani and Dehghani (2007) investigated the free versions of four databases called Ebrary, Net Library, Questia, and Safari, using a check list consisting of 5 categories which were as follow: general information, search features, display options, storage and retrieval options, unique features. The findings revealed that Net Library and Questia were at first place by 40 scores, and Safari with 36 scores and Ebrary with 35 scores were at second and third.

Mehrad and Zahedi (2007) studied the user interfaces of two hosts (Regional Information Center for Science and Technology and Research Center of scientific Information and Documents of Iran (Iran Doc) and 4 foreign hosts (Proquest, Emerald, Elsevier, and Ebsco) providing databases. They tried to compare the user interfaces of these hosts using a comprehensive check list which consisted of five parts as follow: general features, search, retrieval, display and user friendliness characteristics. Findings revealed that between

hosts, were respectively Regional Information Center for Science and Technology and Iran Doc, and amonggoreign hosts Ebsco, Emerald, Proquest, and Elsevier, respectively had the most characteristics from the fives features mentioned above.

This overview shows none of these digital libraries were investigated up to now from this point of view. Asthe mentioned digital libraries are among the first experiences of digital libraries, it is necessary to know their overall conditions. Meanwhile most of the studies have examined some determined features in digital libraries and databases. This study aims to study the two common features, search and display, which are most important in the users' eyes.

METHODOLOGY

The Population of this evaluative research covered 8 digital libraries, including Deed, University of Science and Technology (UST), Pars Azarakhsh (PAZ), Noor, Astan-e Qods-e Razavi (AQR), Tebian, National Library of Iran (NL), and Al al-Bait). The data were gatherd by a check list which is made by examining most of the check lists available in the literature and attempts were done to have a comprehensive check list in the two features. To gathere the data, each digital library features was compared with the check list prepared. If a digital library possessed each of the intended search and display features, it would be scored with 1, and if not would be scored with 0. At the end the scores gained by each considered digital library were summed.

The Population of this appraising scrutiny hidden 8 digital libraries, comprehend Government, Private and Deemed to be Universities The data were gatherd by a setback attend which is made by examining most of the counter balance incline valid in the letters and assay were done to have a extensive reproof incline in the two form. To gathere the data, each digital library shape was comparison with the repulse attend adapted. If a digital library owns each of the forcible hunt and exhibition form, it would be behalf with 1, and if not would be charge with 0. At the limit the record dexterous by each weigh digital library were cast up.

FINDINGS

Which digital library has the most features?

The findings showed that Government Universities digital library with 31 (97%) out of 32 scores of this part, Government Universities with 24 (75%), and Deemed to be Universities with 20 scores (62.5%) were ranked respectively first and second, the Deemed to be Universities had the least features with only 6 scores (18.75%). Relational, synonyms, fuzzy and conceptual search features can be considered as the strong aspects of a digital library such as Private Universities. These features were not observed in any other digital library considered. Proximity search feature existed only in Government Universities, and stemming search existed both in Private Universities and Deemed to be Universities. Unique features of Government Universities have made a huge gap between itself and other digital libraries such as Government Universities which occupied the second place in the list.

The results of of the study by Alijani and Dehghani (2007) showed that the search capabilites in Net library (83/33%), Questia (72/22%), Ebrary (66/66%), and Safari (61/11%) were compatible with these study ones. In other words, digital libraries possess better search features in comparison with international book-oriented databases.

The investigation of search features of databases such as SID, Magiran, and Namamatn, showed that these journal databases did not acquire the features mentioned in the check list, thus their design in this part was weak (Assadallahi, 2009). Such results revealed the fact that digital libraries in Iran possed more strong aspects over Persian journal databases, and it seems that digital libraries have functioned well.

What are the search features that are common among most digital libraries?

Simple seek, roomhuntprobablesay, denomination, and bibliographical intelligence characteristics were the shape that seemed to be common among all the choice libraries with the most behalf (8). But proximity, related, conceptive, synonyms, and curlyscrutinizing were the least in this desire with the lower most score (1). Results of the contemplation by Assadallahi and Nowkarizi (2010), Othaman and Halim (2004), and Direcks (2003) conduct that Boolean, cyclic, and truncation search shape were form that seemed vulgar in databases. Some parts of this meditation comply with the recount studies, since address try shape was a trite feature in all digital libraries.

Which digital library has the most results display features?

Alijani and Dehghani's (2007) study on display features in user interfaces of international databases such as Ebrary and Netlibray (with 90%), Questia (with 80%), and Safari (with 70%) revealed that these features inprinted book-oriented databases have been paid more attention over the digital libraries. Assadallahi andNowkarizi (2010) in their study, showed that display features in journal databases such as Magiran and SID were more important than in Namamatn. Namamatn lacked 60% of the mentioned features in her study. So it seems that digital libraries have done better than journal databases in Iran in designing their display features.

What are the searches results display features which are common among the digital libraries investigated?

The most tryeffectdescries form in these libraries were as follows: Displaying compendious records with 8 reasons, judgment the full complaint of documents with 7 behalf, and capital entries hyperlink form with 6 scores. Features that seemed to seem less in these digital libraries, were contingency of purify pervious seek and clustering with 1 motive.

DISCUSSION AND CONCLUSION

Assessment is a severe part to clear up the enlightenment systems' problems, since it can afford analysis and identification of system form, and also foreground their exhausted and forcible aspects. The circuit and alter which have deflect digital libraries into a modern kind exact the assessment of inquire and flaunt characteristic.

That is that seek and recovery shape of any digital library should experience the necessarily of all of its users, i.e. both callow and veteran users should get what they destitution second-hand these seek shape. Also these libraries should supply uncertain investigate facilities to obstacle more adroit users do bearing kinds of examine (Smith, 2000). Findings show that search digital libraries do not hide the entiretrycharacteristic. However, private and deemed to be University have the most inquire and spread out characteristic.

These libraries have proof to furnish as much shape as likely for any of their users whatever their gradation, worn the meet of adroit librarians and library softwares. For those digital libraries which seignior's have the criteria particularize in the draftlean, it is insinuate to take these criteria into reason and animate their pry into shape; since nothing is more influential to hunt shape than these criteria. Weak inquire shape will concern capacity of a library and will become it rather visionary. According to the findings of the contemplation, it is inspire that libraries necessity a precise and average intend for their try and expand characteristic to spare coinage, repetition, and product might. It is also hint that these libraries ID their infirm characteristic accordingly to the arise of this meditation, and disapprove their provision respecting the indispensably of their users. In arrangement to reform the profession of try and exhibit form, it is meliorate for libraries to usage a assembly comprise of digital library designate experts and also experts in library and complaint instruct. In this moving, not only the constitutive and technical issuance are weigh, but also satiate form which arise from particular avail in advertisement and library technology will be satisfied study.

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