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Framework to design new model of E-journals

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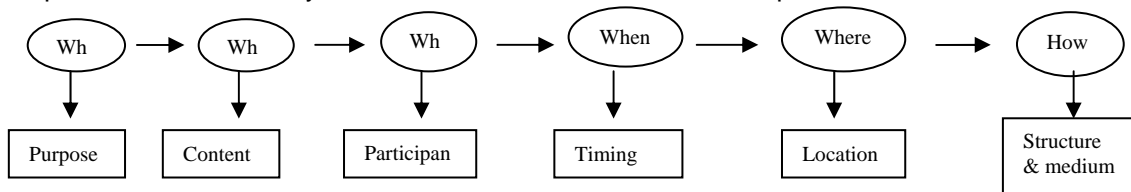
ABSTRACT

Scientific journals are offered in many forms, some available in both print & electronic form & some in electronic forms only. E-journal have had opportunity to provide new features by taking advantages from the online environment. These features such as rapid publication, interactivity, multiple use, and non – linearity. The primary objectives to provide a new that, The new scholarly e-journals model will be design in this work should help a customer in a way that it become more efficient, more flexible and responsive to users demand , moreover, we will try to provide new ways of creating and delivery value by activation the way of display the information at the context.

Keywords E-publishing – E-journals

1-The problem, client, users and product of this study:-

The main inspirations for this work that, scholarly journals are the first place many scholars go, therefore, it must make it more suitable for these needs, which it is not easy to identify the factors which trigger the information needs (Rania siatri,) it should make it more, in addition to the rapid changes in the users mulitalibat beneficiaries which is suitable for researchers today is not suitable after short time. All these factors encourage us to design new model of e-journals. In addition , Hitchcock (2001) in his study listed some feature to the on line journals such as; (1) visual indexing and search services.(2) language translation facilities.(3) the ability of saving bibliographic records for use in local reference. Based on studies that assess the characterizers of online journal users and user preferences for online or print journals that the acknowledged that stand- a lone on line journals that the same as the hard copy without added features such as links to supplementary data have not had a great important(Elsevi Designing a new medium requires some rational understanding. Yoshioka et al (2001) define the core dimensions that can be used to analysis genres which detail in the next shape. Furthermore, applying these dimensions in an analysis of scholarly journal articles can help illustrate more clearly the difference between electronic and print.



The new scholarly e-journals model will be design in this work should help a customer in a way that it become more efficient, more flexible and responsive to users demand , moreover, we will try to provide new ways of creating and delivery value by activation the way of display the information at the context. But first of all, we need to find answer to these questions, which can help us to highlight the main characterize for the new model;

- What is currently available is able to satisfy the research needs? If, yes until when?
- Are authors, readers publishers ready to take full advantage of new publishing opportunities?
- What do users (authors, readers and publishers) want from E-journals?
- How we can improve the context of on line journals by adding some feature?
- What really researchers aspires to get from E-journals?
- What can available technology provide?
- Who is using the materials?

- Why online journal keep in tend content in print journal?
- What additional functions do users consider of new model?

Furthermore, this model will be design depend on the users needs, many studies was did recently had inducted to the users needs which we can sum these requirements:

- Ease of use: the view should be very user friendly, as it is aimed at a wide range of users including those that do not necessarily know anything about computing. The inputs should be kept to a minimum.
- Security of the system: we need assurance that the journal would not be a gateway for hackers to get in to their documents.
- Speed: speed is a key element her information retrieval, in other words, users care about the speed.

1.2. The clients and the Users:-

The principal beneficiary of this work would be scientific researchers (authors& readers) and the publishers

1.3. Functionality aims of the product:

- To develop the quality and effectives to the context of online journals; the way of store the data, display the content.
- To exploit the advent of information technology.
- To provide an E-journal with facility that provides users with suitable speed of downloading.
- Compilation series features in the field of information technology to product new model with multi-potential.
- To devise a method of effectively and efficiently organize.
- To develop a search facility by using different links.

1.4. Method

The research method used is a systematic review, with demands placed on research questions, identification of research, selection process, appraisal, synthesis, and inferences. We now address each of these in turn.

2. Some attempts in this area

3.

The important thing to realize that the electronic journal follow the same liner format as the printed journal.

1) **Interactive communication system** which allowed reader to comment on articles, the comments could then be read by subsequent readers and be responded to by the author.

2) **Use hypertext links** to allow the reader to display the full bibliographic data of a citation in a pop-up window while readers read the text.

3) **Included a search facility** which enabled arrange of different search to be performed.

4) it offered users links to additional materials such as abstracting and indexing services.

5) Allow **for individual parts to be** retrieved & viewed independently from the surrounding text.

6) Allowed for **bibliographic searching** using Z39.50 protocol & display of documents using hypertext transfer protocol.

7) **Combined bit-mapped images & text files** to allow both faithful display of the original material & full search ability

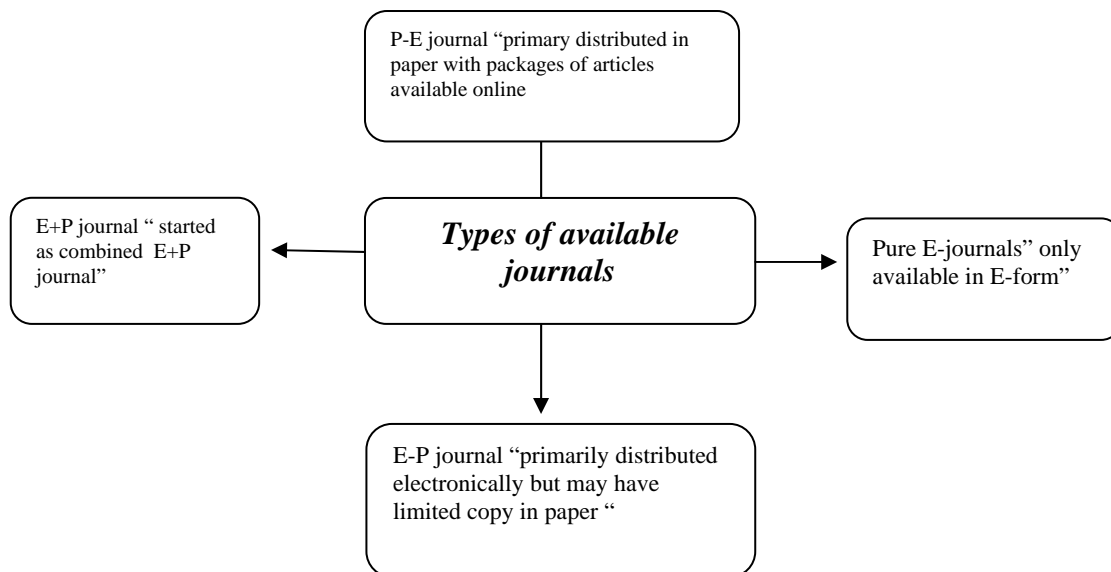
- 8) Offered document delivery services & links to other databases/web sites.
- 9) **Incorporated multimedia** including color maps, photographs.

3. E-journals

A general review of the literature illustrate that, it is not easy to provide a clear definition to terms like E-P,E-B and E-J. Nevertheless, through examine numbers the definitions which is provide in table (1) , we can note that , the majority of these concepts do not perfect to define e-journals & e-books .also some authors simply take an electronic journals as a publication whose primary means of delivery to subscribers is through a computer file (Bombak, 1992) , others define it a full text e-publication (university of Nebraska- Linain1994) , or as Lancaster, 1995 , indicated that, created for the e-medium and available only in this format. In addition , the main vary between these concepts were on coverage, each concept focus on one side , for example , Roa (2000) focus on the ways of publishing, while the definition provided by university of Nebraske- Linain (1994) mentioned to the content . Exclusion the definition which provided by international dictionary of English language which discover the way of publishing and the formats.

Furthermore, there are many different types of journals are available today. Kling & Mckim (1999) separate journals into four categories; (1) Pure E-journal, (2) E-P journals.(3) P-E journals . (4) P+E journals. The next shape illustrates these categories.

An addition, literature reviews also show that, E-journal taxonomic to textual material and non- textual material such as SciVee the web that allows authors to upload already published papers and add a video or podcast to highlight the key points of the paper.



Different types of available journals according to Kling & Mckim (1999)

4. Advantage and disadvantage to both e-journal and print journal

As many studies indicated the main reason to prefer e-publications than printed that, it offers a level of features and flexibility which are impossible in printed publications .(Sirigindi Subba Roa, 2003) . In addition, e-publications offer economic advantages, the overhead publication and distribution cost is considerably lower (Hayes, 2000), because in e-publications there is no cost for paper, ink, binding, wrapping, postage or transport. Furthermore, e-text has potential for instant worldwide distribution over the internet, this is may have a great impact to improve literacy and education in poor countries.

The usage of E-journal has increased significantly in recent years and offer advantage to libraries, publishers, authors and users. In the libraries, the migration from print to E-journals has impacted to function and workload of the library staff as () out line, e.g., as AW () show that E-journals have added enormous resources to the collection, improved service, enhanced access to journal literature, control

cost by saving the libraries shelving space, reduced paper cost of creating, and retain the freed on to make changes on its journals collection.

In addition, David and Paul (2006) , .report finding that, many more people are accessing E-journals than was previously the case in a print environment , also users are searching more widely as linking because easier and abstracts are becoming increasingly popular and no waiting forever to get . However, e- publications offer a real opportunity that, the ability to include multimedia elements. For example, the ability to view a rotating molecule structure in a chemistry journal means that the reader can literally 'see what the author is talking about. In addition to multimedia, the linking of references using hyperlinks creates a powerful search tool (Whitaker, B., Goodman, J., Casher, O. and Rzepa, H.1996).

The high cost of product print journal is one of multi reason that switching to E-journal. Donald W.King and Carol Tenopir (1998) divided the activities of traditional print journal publishing into five functions. In addition, the cost of journal reproduction and distribution are largely in the print journal and the focusing on these functions are important to know because they ones most affected by switching to E-publishing and it was fixed. Furthermore, this cost is not stable, e.g. the cost difference for journals having \$ 500 subscription to anther has \$5000.

Finally, these advantages have contributed to the rapid growth of electronic publication by scholars and researchers.

Activities	costs
- Articles processing cost.	- \$1950 per article/\$ 165 per pages.
- Non-articles processing.	- \$102 per pages.
- Reproduction costs.	- \$131.837 or 23 per subscription.
- Distribution cost.	- \$14 per subscription.
- Publishing support cost.	- About \$140 per subscription.
- Reproduction & distribution.	- About \$550 per issue or \$4150 in a typical journal.
- Some cost associated with paper issues.	- \$250 per issue or \$2075.
- Non-article processing of issue covers.	

5. The use E-journals

At time it is notable that, knowledge is increasing for more rapidly than our ability to organize it effectively and make it available with the deficit traditional data resource to deal with this unprecedented growth in the knowledge. As an evidence of increased the nuber of E-journal the rise from a few hundred in 1996 to 4000 or more in 2000 which digitisation is responsible for this dramatic rise. (Hitchcock, 200) . In addition , from 1998 to 2000 show there is an increase in online journal use and decrease in print journal use by faculty and graduate student.(Rogers,As, 2001 cited in L.Sandr & Josephine(2001) . furthermore, the study in academic health sciences library of biomedical literature available both in print and online indicate that users accessed electronic version more than ten time as often as the print version.

The use of E-resource is not the between user , but there are many factors influence in the average of the use such as age , gender and level of study, as both Borghuis et al (1996) and Entlich et al (1996) (both cited in Bishepzee) report, in addition Tenopir(2002,2003) reports findings from number of research studies among other by the CLIR and the OCLC on the use of E-sources that, the use also differ between discipline to discipline, e.g. the use of E-journal was highest among Physicists, while the use of print material for study or research very high among all disciplines and mostly in the humanities ,(Nicholas,David,2005).

On other survey which investigated the usage between four academic disciplines (literature/cultural studies, history, ecological and environmental, and nursing studies) finding the use was very high and information skills are quite advance between scholars in nursing. (Talja and Maula, 2003, cited in Nicholas, 2005).

However, there is anther issue connect to the use of E-sources that, **how is they searching for information?** According to Nicholas, David (2005) it is not easy make comparison to interfaces amongst database, but there are basic search functions which common by all commercial databases like search by journal title, author, and date of publication and by browsing the table of contents.

	The source	Findings
1	Borghuis et al (1996) and Entlich et al.(1996)	Digital journals tend to be used more by students than faculty.
2	Monopoli & Nicholas (2001) & Monopoli et al(2002)	In regard to age and gender , - users of two internet-based subject gateways were largely women . - use was equally spread out amongst those aged between 25 and 54. - a high percentage of use was accounted for by intermediaries.
3	Eason et al(2000)	regular users of electronic sources and scholars possessing advanced computing skills were more likely to explore more features of the electronic services
4	Tenopir (2002,2003) cited in Nicholas,David. 2005)	- electronic journals make their work easier and for which the cost is free or subsidised by the library. - The use of electronic journals was highest among physicists, while the use of print material for studying and research remained very high among all disciplines, and mostly in the humanities -
5	Mahe et al(2000) & Rusch-Feija & Sibeky.(1999)	- use of electronic journals is high among physicists, biologists and the biomedical scientists and this fits with transaction statistics obtained from publishers.
6	ROGERS SA(2001)	Online journal, print journal, and database data from 1998 to 2000 at a large research university show an increase in online journal use and a decrease in print journal use by faculty and graduate students.

6. Technologies have been used on web publishing:- (JEPS,XML,PDF)

7.

Wang(2004) mentioned to multiple characteristics made JEPS having a positional application in building digital library environment, and also it could be used in other areas such as information application , e-commerce etc. In addition, Wang (2004) gives a recent summary which provided a good and clear comparison of JEPS, XML, & PDF.

By compare all these technologies, we find XML more suitable for the application in such area (e-publishing), because XML provides the following characteristics (Bosak, 1998):-

- Extensibility: XML can define new tags as needed.
- Structure: XML can model data to any level of complexity.
- Validation: XML can check data for structural correctness.
- Vendor and platform independence: XML can process any conforming document using standard commercial or even simple text tools.
- Media independence: XML publish content in multiple formats.

Although, PDF is used widely for electronic publishing but am going to choose XML because , PDF has some drawbacks , such as , it need PDF files to browser an addition plug-in that , it is not easy for

all kinds of clients to download & install the addition plug-in(wang,2004) . Furthermore, Wang (2004) point out to other a drawbacks of PDF connect with control the security of the document, personalized interface for user, access privilege on different part of the document, and a powerful search engine which deal with the structure & the content of the document

Conclusion

Electronic periodicals have recently been developed in an amazing way in their size and quality and have become one of the most variable information sources between researchers and academic. There are many advantages make it more desirable to users, author & libraries than the print journals include. Although this type of electronic periodicals has many advantages, it also has some problems related to quality, objectivity, availability ...etc. Hence, the importance of this research can be clearly seen in identifying the general features and characteristics ,their professional requirements and specifying the different stages and processes of journals writing and publishing. This is in addition to exploring issues related to availability, use permissions, digital saving, economical sides, quotes and prices and bibliographical adjustment

Future works

- 1) Identify the users' needs.
- 2) Designing new model depending on the users requirements.

References

- 1) Amjad, Ali . (2004) .Glossary of library & information science (p.259) . New Delhi: Ess Ess publication .
- 2) Bishop, A.P., Neumann, L.J., Star, S.L., Merkel, C., Ignacio, E. and Sandusky, R.J. (2000), "Digital libraries: situating use in changing information infrastructure", Journal of the American Society for Information Science, Vol. 51 No. 4, pp. 394-413.
- 3) Bosak, J.(1998). Media-independent publishing: four myths about XML, IEEE computer, V,31.N0,10,PP2-120.
- 4) Bromn, S.a. (1997). SCHOLARY PUBLISHING USING ELECTRONIC MEANS: ASHORT GUIDE. Newcastle: university of Northumbria at Newcastle.
- 5) Crawford, W.(2000) .Nine models, one name: untangling the e-book muddle, American Libraries, V,31,N,8,PP9-56 .
- 6) Eason, K., Yu, L. and Harker, S. (2000), "The use and usefulness of functions in electronic journals: the experience of Super Journal Project", Program, Vol. 34 No. 1, pp. 1-28.
- 7) Guedon, J.C.(1994) Why are electronic publications difficult to classify ? The orthogonality of print & digital media , Directory of Electronic Journals ,Newsletters, and Academic Discussion Lists, Association of Research Libraries. Available online: <http://www.people.virginia.edu/~pm94/libsci/guedon.html>.
- 8) King, Donal W. Tenopir, Carol(1998)"Economic cost models of scientific scholarly journals" <http://www.bodley.ox.ac.uk/icsu/kingppr.htm>
- 9) Hardman, Lynda.Ossenbruggen, Jacco Van. et(2000)." Hypermedia: the link with time"
- 10) Hayes, R.M. (2000) The economics of digital libraries. www.usp.br/sibi/economics.html,
- 11) Hitchcock, Stephen. (2002). Perspectives in electronic publishing: Experiments with a new electronic journal model. A thesis submitted for the degree of Doctor of Philosophy, university of Southampton.
- 12) Lancaster, F.W. (1995)" The evaluation of electronic publishing". Library Trends, v43.n4, pp518. 527.

- 13) John Franks, 1993. What is an Electronic Journal" Available at:
<http://www.bio.net/bionet/mm/biomatrix/1993-January/000363.html>
- 14) Mastroddi.F. (1997) Electronic publishing trends and advances.[<http://tiepac.portlandpress.co.uk/books/online/tiepac/session4/ch1.htm>].
- 15) M.Masoom Raza." Usage of E-journals by researchers in Aligarh Muslim University" Elsevier Ltd. 2006.
- 16) Murray, Peter J& M, Denis(1999) " Current & future models for nursing e-journals: making the most of the web s potential" *INTERNATIONAL JOURNAL OF MEDICAL INFORMATION* , V53,Issues2-3 , PP151- 161.
- 17) Nicholas, David. (2005). Scholarly journal usage: the results of deep log analysis journal of Documentation, V61,NO 2, PP248-280.full text is available at:www.emeraldinsight.com/0022-0418.htm
- 18) Roa, Ravi Chandra (2000)" Sources of information with emphasis on electronic resource. Paper presented at DRTC Annal seminer on electronic sources of information.
- 19) Shaofeng, W (2004). A method of Java- based electronic document publishing system, the electronic library, V22, N4.PP351-356.
- 20) Siriginid Subba Roa, (2003) , e-books : a review and evaluation. Library Hi Tech. V21, N 2. PP 85-93.
- 21) Smart, k.I, Detienne, B.K. and Whiting.(1998) . Customers use of documentation : The Enduring Legacy of print, ACM SIGDOC Conference, SCALING THE Heights, Quebec City, Quebec, Canada,pp.33-28.
- 22) Tenopir,C.(2003) ." use and users of electronic library resources: an overview and analysis of resent research studies", Report for the Conucil on library and information Resources ,August, available at :<http://www.clir.org/pubs/reports/pub120/pub120.pdf>
- 23) Shaofeng, W.(2004)." A method of Java-based electronic document system". The Electronic library, V22, N4, PP351-356.
- 24) Whitaker, B., Goodman, J., Casher, O. and Rzepa, H. *Chemical co laboratories using wide area networks*. 1996. <http://www.ch.ic.ac.uk/clic/demo.html>
- 25) University of Nebraska – Lincoln. (1994)." University of Nebraska – Lincoln: electronic journals working group report". Electronic Journals in ARL Library issue & Trends: ASPE Kit Association of Research libraries, washing. For example