Electronic Resources for University Library and Its Advantages

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ABSTRACT

We are living in Digital Era,now availability of Electronic resource in academic Library is very common. Because the internet –in particular, the World Wide Web is rapidly Displacing the user of external storage media, such as floppy disks and CD-ROMs. Due to information revaluation the Digital Library are growing worldwide. The user need regarding electronic resource is increasing day by day, according to their academic requirement. This overview is weighted toward resources available on the internet. Also,this review is limited to resources that provide information that is not available in traditional media and that is associated with established scholars or institutions. This paper discuss the Types Advantages, Benefit of Electronic resources and utilize the maximum e-resources and give few suggestion for improvement of services of E-resources for the future need.

Keywords: E-resources, Digital Libraries, Online Journal, Database.

1. INTRODUCTION

Electronic resources are the prime ingredients and they become a common part of most academic library resources today. Internet and its most used component, World Wide Web (www) has turned into the biggest source of information with the widest coverage and the fastest access. It is the most powerful tool for global communication and exchange of information. The dependency of scholars in the academic centers on the e-resources has increased to a large extent. An information literature researcher find it convenient to make use of e-resources for his/her research work.

Understanding the growing importance of e-resources, modern libraries are advancing a step ahead to keep pace with the latest e-publications. It is in fact, a great question in mind, weather every government library is structurally and functionally equipped to provide the latest channel of electronic information services to the clientele. The E-resources of information is becoming more and more important for academic community in accessing the information in right form. The availability of resources in electronic environment becomes more readily available in electronic format. This would result in increase use of CD-ROM, e-journals, online database and internet based information.

The e-resources facilitate the libraries to get the benefit of large number of resources at an affordable cost and in minimal time. Moreover, the technology has changed expectations of researchers, their patience, and their willingness to accept services that are available on demand. The e-resources are the answer to expectations of the users.

In India, very few attempt have been made so far to study extensively the use of e-resources by students, researchscholars and faculty members and also the impact of e-services and their functioning.

The library profession recognized the potential of computer to make library resources more accessible with the development of computer

technology. Librarians are often enthusiastic and sometimes early adopters of technology. The use of electronic resources in library began with the development of the machine-readable catalogue format in the mid-1960, a full 30 year before the introduction of the World Wide Weband its subsequent ubiquity. Bibliographic database become available at approximately the same time.

Libraries provide access to data sets such as census and survey data from as early as the 1970's. During the microcomputer revolution of the 1980's, libraries acquired software and data on diskettes-ROM began, which contained full text. Search interfaces became more straightforward and simpler to use. Online catalogs became more common, and libraries began to offer them through their-World Wide Web in 1990. The subsequent development of the Mosaic browser in 1992 led to widespread use of the Web beginning in 1993. The graphical interface and the later development of Web search engine such as Yahoo! Made resources on the Internet more accessible to average patrons Web-based electronic resources were widely available from the beginning of the mid-1990. Libraries offered Web-based catalogs, bibliographic and full-text databases, electronic journals, and eventually electronic books through the Web. Patrons no longer had to go to the library to do a significant amount of their research, as it was more efficient and eased their access and search. The pursuit of electronic resources by libraries was driven by the core values of library science. It is possible to recognize in Ranganathan's five laws of library science the motivation that drove libraries to incorporate electronic resources into services and collections. Each technological development in library electronic resources during the 20th century was intended to make access to resources more direct, convenient, an According to AACR2, 2005 Update, an electronic resources is: "Material (data and /or program (s)) encoded for manipulation by a computerized device. This material may require the use of a peripheral directly connected to a computerized device (e.g., CD-ROM drive) or a connection to a computer network (e.g., the Internet)."

d timely for the user. The implementation of electronic resources made the library a growing organism as libraries adapted processes and recognized staff repeatedly to accommodate the changes inherent in the use of constantly changing technology.

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2. online catalogue

All Electronic resources began to dramatically change the way patrons accessed library resources in the mid-1960. The card catalog, standard fixture in libraries for a century, faced its demise. One of the major developments during the 1960's was machine-readable cataloging (MARC). The MARC format dramatically changed the way library resources were processed and accessed. The library professional who created MARC recognized the need for automation and as supporting data standard at a critical juncture in the development of technology, and took the necessary steps and risks to develop one. The flexible and expandable MARC format demonstrated the foresight and vision of those who developed it over 40 years ago.

Machine Readable catalogue

In 1964, the council on Library Resources commissioned study about capturing cataloging data in machine-readable form. A report called *The Recording of Library of congress Bibliographic Data in Machine form resulted form* the study,and was used as the basis for the first conference on Machine-Readable catalog copy in 1965. The Library of Congress' Information System Office developed and distributed a report based on this meeting titled *A proposed Format for a Standardized Machine-readable Catalog Record (Avaram, 1968).* During a second conference held at the library of Congress; the MARC pilot project was conceived. Planning for the project began in February 1966. The MARC I format was created and codes for place of publication, language, and publisher were developed, and computer software was designed.

Definition of E-resources

The print on paper is slowly being overtaken by electronic publishing. This new publishing medium has given scope for more efficient means of storage, maintenance and quick access from remote places. Under financial constrains, libraries need to concentrate on developing electronic documents and have an access to electronic information resources using network facilities to serve the users in more fulfilled way.

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Objective of E-resources :

A. To explore the awareness and perceived importance of the e-resources among the user.

B. The place from where institution Library users access Internet.

C. Their frequency of use of e-resources.

D. To know the opinion of users regarding the features of e-resources.

E. To know the purpose of e-resources and search engine preferences for finding information on information.

F. To find out e-resources influence on academic efficiency.

G. The problem faced by the respondent while accessing the e-resources.

H. The benefits of using e-resources.

Types of Electronic Resources :

Electronic journals are scholarly journals or magazines that can be accessed via electronic transmission. They are a specialized form of electronic document: they have the purpose of providing material for academic research and study, they are formatted approximately like printed journal articles, the meta-data is entered into specialized databases, such as DOAJ OR OACI as well as the database for the discipline, and they are predominantly available through academic libraries and special libraries. There are currently two of e-journals are existing:

Offline CD-ROM Version:

CD – ROM represent a way of digitally storing large amounts of information in a say that's easy to search and retrieve. CD- ROM has high storage capacity and reliability. It is cost effective medium of bringing computerized literature searching. It is portable and has ability to store graphic data. The most important advantage of CDs is no network is needed and the same can be shared by unlimited number of users, sitting at far off places at their door steps.

Online or Internet Based Journals:

online journals are available through online hosts as DIALOG at high costs they are not likely to be part of library collections. As online journals allows remote access, it can be used simultaneously by more than one users. It provides timely access and supports different searching capabilities and saves physicals storage.

Database:

It is a collection of Information organized in such as way that a computer program can quickly select desired pieces of data. One can think of database as an electronic filling systems. Database can be categorized according to various bases like on the bases like online databases and offline (CD – ROM) databases. : There are currently many types of databases such as:

Online Databases:

An online database is a database accessible via a network, now generally the internet. It differs from a local database, held in anIndividual computer or its attached storage, such as a CD – ROM.

Bibliographic Database:

A bibliographic or library database is a database of bibliographic records. It may be a database containing information about books and other materials held in a library (e.g. an online library catalog, or OPAC) or, as the term is more often used, an electronic index to journal or magazine articles, containing citations, abstracts and often either the full text of the articles indexed, or links to the full text.

Image Databases:

It is important to test an image watermarking software on many different images and for fair comparison the same set of sample images should always be used. Picture can be interesting from the signal processing point of view: textured / smooth areas, size, synthetic, with straight edges, sharp, blur, brightness/contrast, etc. They should also cover a broad range of contents and types. It is impossible to get an exhaustive list of classes of pictures and thus stock photo companies face a lot of difficulties to set up a satisfactory index, However one can at least retain the main themes that are common among these libraries and that are used very often in the press in order to keep a wide

range of pictures with different colors, textures, patterns, shapes, lighting.

Internet:

The internet is a global system of interconnected computer networks that use the standard Internet protocol suite (TCP/IP) to serve billions of users worldwide. It is a network of network that consists of millions of private, public, academic, business, and government network, of local to global scope, that are linked by a broad array of electronic, wireless and optical networking technologies. The Internet carries an extensive range of information resources and services, such as the internet-linked hypertext document of the World Wide Web (WWW) and the infrastructure to support email.

1) Exchange personal message with colleagues, friends of relatives at other networked sites.

2) Exchange in group discussion, exchange of information and ideas with the people who share a common interest and seek information from them.

3) Receive information on world events, leisure interest's technical, business and professional matters by subscribing to electronic journals, conferences, libraries worldwide.

4) Look up for information in reference works, database and libraries worldwide.

5) Browse catalogues of goods and services and makes credit card purchase.

6) Participate in discipline learning, academic conferencing and so on.

Websites:

A websites (alternative web site or Website) is a collection of web pages, video or other digital assets that is hosted web Internet, cell phone or a LAN.

Subject Gateways:

Subject gateways are Internet service which supports systematic resources discovery. They provide links to resources (documents, objects, sites or services) predominantly accessible via the Internet. The service is based on resources Description. Browsing access to the resource via a subject structure is an important Feature.

E-Books:

An e-book (short for electronic books, also written e-Books or e-book) is an e-text that forms the digital media equivalent of a conventional printed book, links to collections of full-text books like Books 24x7, Early English Books Online, and Net Library.

E- News:

News resources like Lexis Nexis and Factiva, and links to local, national and international newspaper.

E- Images:

Image databases like Columbia Image Bank: History of Art & Architecture, American Memory, and ARTstor.

E-Music and Sound Collections:

Sound recording collections like Classical Music Library, Naxos Music Library, and Smithsonian Global Sound.

Free Electronic Resources:

1 Search Engines

1) Google Scholar

2)Scirus: For Scientific Information Only

3) The Internet Public Library

2 Open Access Sites & Digital Archives

1) Google Directory Open Access Resources

2) Caltech Collection of Open Archives (CODA)

3) Open Course ware Consortium

3 E- Journals

1) Directory of Open Access Journals (DOAJ)

2) JURN (Subject Area: Arts & Humanities)

3) Internet Library of Early Journals

4 E- Books

1) Google Books

2) American Mathematical Society : mathematics Books Online

3) The Open Library

5 E-Dictionaries & Thesaurus

1) Thesaurus. Com

2) Cambridge Dictionaries Online

3) Oxford Advanced Learner's Dictionary

6 E- Encyclopedias

1) Britannica

2) Encyclopedia of Life

3) Art Encyclopedia

7 News Search Engines

1) Google News

2) Alta Vista News

3) NSSN: Search Engine for Global Standards

8 Bibliographies

1) Nobel Prize Winner

2) International Statistical Agencies

3) International Statistical Agencies

9. Bibliographies

1) Turkiye Makaleler Bibliyografyast 1995-

2) National Library of TRNC: Cyprus Collection

10 Atlases & Maps

1) National Geographic Maps

2) World Atlas

3) World Sites Atlas

Electronic Resources Management Systems:

Libraries can use Electronic Resources management as a stand-alone solution or as an integrated module of the Millennium ILS. As a stand-alone system, libraries can enjoy the benefits of ERM's ability to maintain resources, track licenses, and manage coverage data. Whether fully integrated or stand alone, ERM is tailor-made to take advantage of Innovative Quick Start implementation program that includes hundreds of ready -to-use e-resources records.

ERMS refers to system that supports management of the information and work flows necessary to efficiently select, evaluate, acquire, maintain, and provide informed access to electronic resources in accordance with their business and license term.

How can we access E-Resources:

a)   Free Access

b)   IP Based

c)   User Name and Passwords

Some Example of Electronic Resources:

1 Federated and Common Search Engine

1) JCCC

2) GIST Find

2 Reference And Citation Sources

1) Chicago Manual of Style

2) Credo references

3) Encyclopedia Britannica

4) Keesings World

5) Oxford Dictionary of National Biography

6) The New Palgrave Dictionary of Economics Online

7) The Statesmans Yearbook online

3 Bibliographic Sources

1) Econlit

2) ISID

3) Regional Business news

4 Citation Analysis Resources

1) Scopus

2) Web of Science (Through N-List Program)

5. Financial And Statistical Sources

1) Indiastat.com

2) Capitalline Plus

3) Economic & Political Weekly

4) ISI Emerging Markets CEIC Asia

5) ISI Emerging Market CEIC Asia

6 Full Text Sources

1) ABI / INFORMATION Complete

2) Academic Search Premier

3) Business Source Premier

4)Cambridge University Press

5) Emerald Management XTRA

6) H W Wilson Omni File Full Text

7) Humanities International Complete

8) Indian Journal. Com

9) J-STOR

10) Oxford University Press

11) Project Muse

12) Sage Journals Online

13) Soc Index with full Text

14) Springer Link + Archives

15) Taylor and Francis

16) World Intellectual Property Search

JCCC @ UGC-INFONET

JCCC provides article – level access for all the journals subscribed by the UGC-INFONET Digital Library Consortium as well as journals subscribed by 22 university libraries designated as Inter-Library Loan (ILL) Centers of the INFLIBNET Centre.

The UGC-INFONET Digital Library Consortium was formally launched in December, 2003 by Honorable Dr. A P J Abdul Kalam, the then president of India soon after providing the Internet connectivity to the universities in the year 2003 under the UGC-Infonet program . The consortium proved to be a recipient to university libraries which have been discontinuing subscriptions of scholarly journals because of "Serial Crisis". The term "serial crisis" refers to exponential and continuing increase in subscription cost of scholarly journals. The crisis is a result of rise in cost of journals much faster than the rate of inflation, increase in number of journals and the paucity of funds available to the libraries.

The Consortium provides current as well as archival access to more than 4500 core and peer-reviewed journals and nine bibliographic database from 23 publishers and aggregators in different disciplines.

The program has been implemented in phased manner. In the first phase that began in 2004, access to e-resources was provided to more than 50 universities who had Internet. Connectivity under the UGC-Infonet Connectivity programmer of the UGC. In the second phase, 50 more universities were added to the program in the year 2005. So far more than 120 universities out of 171 that come out under the purview of UGC have been provided differential access to subscribed e-resources. These e-resources cover almostall subject discipline including arts, humanities , social sciences, physical science, chemical science, life science, computer science, mathematics and statistics, etc. The program is wholly funded by the UGC and executed by the INFLIBNET (Information Library Network) center, Ahmedabad.INFLIBNET works collaboratively with Indian university libraries to shape the future of the academic libraries in the evolving information environment.

ILL Libraries & Articles Delivery

INFLIBNET has initiated inter-library loans and document delivery services from the comprehensive collection of subscribed journals under [JCCC@UGC-INFONET](#). ILL is also known as Inter-Library Lending. INFLIBNET has designated 22 libraries to fulfill ILL request from the users, affiliated to 149 universities covered under UGC.

The ILL libraries together subscribed for 2000 plus journals that is not available through consortia. Universities can request for articles from the journal holding of those libraries wherever they find useful articles in JCCC search that are not available in that library.

Public Domain E-Resources

1 Subject Gateways

Gateways are portals to information that are usually limited to a specific domain or subject area. The resources accessible through these gateways are reviewed, selected, evaluated and

catalogued by information professionals or subject experts. Some examples are:

Bubl Information Service

http://bubl.ac.uk/

BUBL is a UK- based interactive information service which provide links to over 12,000internet resources in a wide range of subject areas. Initially designed as a resource forlibrarians. It include a directory of UK organization and institutions, job postings, user group links, surveys comprehensive archives. BUBL provides links to current editions of all major UK newspapers, as well as abstracts and selected full text from over 200 journals.

Cogprints

http://cogprints.org/

Cogprints, an electronic archive for self-archives paper in any area of psychology, neuroscience, and linguistics, and many areas of Computer Science (e.g., artificial intelligence robotics, vision, learning, speech, neural networks), philosophy (e.g., mind language, knowledge, science, logic), Biology (e.g., ethology, behavioral ecology, sociobiology, behavior genetics, evolutionary theory),

Medicine (e.g., Psychiatry, Neurology, Human genetics, Imaging), Anthropology (e.g., primatology, cognitive ethnology, archeology, paleontology), as well as any other portions of the physical, social and mathematical sciences that are pertinent to the study of cognition.

Bioline International

http://www.bioline.org.br/

It is a not-for-profit electronic publishing service committed to providing open access to quality research journals published in developing countries.

Directory of Open Access Journals

http://www.doaj.org/

There are now 2514 journals in the directory. Currently 747 journals are search able at articled level. As of today 124159 articles are included in the DOAJ service.

The Electronic Journals Library

http://rzblx1.uni-regensburg.de/ezeot/ft.phtml/

Offers an effective use of both scientific and academic journals publishing full text articles in the internet.

Freefulltext.com

http://**www.freefulltext.com/**

It provides direct links to over 7000 scholarly periodicals which allow some or all of their online content to be viewed by ANYONE with Internet access for free.

Newjour

http://gort.used.edu/newjour/

An Archive for the Internet list for new journals and newsletters available on the Internet.

Openj-Gate.com

http://www.openj-gate.com/

Its and electronic gateway to global journal literature in open access domain. Launched in 2006 Open J-Gate is the contribution of informatics (India) Ltd to promote OAI. Open J-Gate provides seamless access to millions of journal articles available online.

Strategian

http://www.strategian.com/

The Strategic Guide to Quality Information in Biology, Chemistry, Computer Science, Mathematics, Physics, and Psychology.

Electronic Books

Electronic Books are electronic version of printed books that can be viewed online via any PC connected to the Internet. It includes mostly the classics. Some Public domain e-book resources are :

Lex Catalogue of Electronic Texts

http://www.informotions.com/alex

Lex catalogue of Electronic Textist a collection of public domain documents from America and English Literature as well as Western Philosophy. You can search for and display texts from the collection & also search their content, & even create on-the-fly PDFs for offline reading or printing.

Authorama Public Domain Books (Fiction)

http:www.authorama.com

Featuring completely free books from a variety of different authors, collected here for you to read online or offline. This site is regularly updated with new freeware stories.

Free Books

http://www.e-book.com.au/freebooks.htm

A site which provides comprehensive web links on Best free Digital Libraries Australia; Best free Digital Libraries World; Other Free Australian Books; Other Free Book site/pages in English; World-Other Language, Regional and National; Individual Topic/Miscellaneous; Sacred Text and Religion.

Project Gutenberg

http://www.gutenberg.org

Project Gutenberg is the oldest producer of free e-books on the Internet. It is the first and largest single collection of free electronic books, or e-books. The collection consists of more than 20,000 e-books.

Read Print Site

http://www.readprint.com/

It is very useful for historians and lovers of literature, as this site contain mainly the classics. It offers thousand of free books for students, teachers, and the classic enthusiast.

Miscellaneous Electronic Resources

ArXive e-prints

http://www.arxiv.org

Arxiv e-prints includes e-prints "preprints" in physics, mathematics, nonlinear science, and computer science. From Cornell University with assistance from the National Science Foundation (USA), the National Institute for Theoretical Physics (USA) and the University of Adelaide (Australia). Formal include PDF, Postscript, and DVI.

http://www.arxiv.org

NB: There are mirror sites in Australia, Brazil, China, France, Germany, UK, India, Israel, Italy, Japan, Korea, Russia, Spain, Taiwan, & USA.

Digital Library of Information Science and Technology

http://dlist.sir.arizona.edu

A repository of electronic resources in Library and Information Science (LIS) and Information Technology (IT). Contains published and unpublished papers, data sets instructional and help material, Pathfinder, reports & bibliographies. So far in English only. User registration required to access some areas. In HTML or PDG.

ERIC Educational Resources information Center

ERIC provides free access to more than 1.2 million bibliographic records of journal articles and other education-related materials and, if available, includes links to full text. ERIC is sponsored by the U.S Department of Education, Institute of Education Science (IES).

1) What's in ERIC-Bibliographic records of education literature plus a growing collection of full text.

2)Journals Indexed in ERIC – Alphabetical list covering 1966 to the present.

Networked Digital Library of Theses and Dissertations

http://www.ndltd.org/

Networked Digital Library of These and Dissertation (NDLTD) Links t digital thesis /dissertation available in Australia, Canada, many European nations, Hong kong, Taiwan & the USA.

Characteristics of E-Resources :

1) Can be used simultaneously by more than one user.

2) Provide timely access;

3)Save physical storage space;

4)Contain multimedia information;

5)Don not requires physical processing;

6) Automatically generate alerting and other secondary services;

7) Support searching capabilities;

Advantage of E-resources:

There are few advantage of E-resources:

a) E-resource provide user friendly interface.

b) User can access information 24*7 hours.

c) E-resources can be access by several users simultaneity.

d) Electronic resource have multidisciplinary approach.

e) E-resource provide advance searching tools.

f) E-resources ignore missing issue problems.

g) Article on electronic form can be also print as a hard copy.

h) Not required more timing for publishing and Distributing Process.

i) E-resource is upgrade then Print version.

j) E-resource provide accuracy, authoritative, current materials.

Disadvantages of E-resources:

There are few disadvantage of E-resources:

a) Copyright issue.

b) Much Costly.

c) Difficult in reading on computer .

d) Less parameters.

Benefits of Accessing E-Resources :

Access to electronic information sources offers today, users different benefits to do their research work, So benefits of e-resources use are: 'Save time', 'instant e-resources', 'quick access to e-print', 'easy accessible', 'access to e-archives'. Electronic information can provide a number of advantages over traditional print resources. According to the Digital Library Federation (DLF), an electronic resource management system should facilitate "management of the information and work flows necessary to efficiently select, evaluate acquire, maintain, and provide access to e-resources:" (Jewell et al. 2004).

An efficient electronic resources management system should be a "one stop shopping" place for all of the disparate pieces of information related to electronic resources subscriptions. Furthermore, an ERM system should streamline work flow and the dissemination of information, thereby elimination the necessity of re-entering data that already exists in separate systems. The DLF suggests that "such a system should support the service requirements of e-resources while building on existing investments in library technology, through seamless interaction and efficient sharing of data with traditional MARC based online catalogs, Web portals, federated searching tools, local resolution services, local authentication and access management

systems, and traditional library management functions".

Problem of Accessing E-Resources :

There are some problem and limitation of using of facilities required for using e-resources, they are difficulty in finding relevant information, takes long time to view, slow accessibility, difficulty in using digital resources, limited access to computer, lack of time, and computer virus etc.

1) Difficulty in finding relevant information

2)Long time in view

3)Slow accessibility

4) Difficulties in using digital resources

5)Limited access to computer

6)Lack of time

7) Virus

Challenges :

1) Provision of ITC facilities in libraries.

2) Provision of such facilities in libraries may enhance the use of electronic journals by users, especially students.

3) Some libraries still lack facilities such as electronic classrooms with sufficient electronic equipment that could be used by users.

Conclusion :

With all the credibility to the e-resources, searching, investigating and participating in creation and re-use of contents have undergone a revolutionary change in almost all spheres of activities of the present day education and learning systems, the way people communicate, interact, share knowledge. The use of e-resources has

evolved broadly on the collaborative structures over the ground and pillars of a range of new technological tools and techniques. E-resources perform an increasingly important role in research.E- resources are seen as having a positive impact, and the study has enabled the respondents to express their satisfaction and their aspirations for improvements. Several responses identified both satisfaction and expectation for the future.

Students are highly responsive to recommendations of specific resources by their teachers, friends, or a librarian. Educating college students in the best resources, how to evaluate Web resources, and search strategies is important. Convenience remains the single most important factor for information use. All type of users prefer electronic journals only if they make their work easier and give them the information they need. Desktop access, speed of access, and the ability to download, print, and send articles are top advantages of electronic journals for all groups.

Suggestion for use of e-resource :

some important suggestions are as follows:

Awareness should be created for use of e-journals and e-books to obtain current information.

Necessary arrangement should be made to access the full text of more journals related to their subjects.

Increase number of computers.

Speeding up the internet connection.

Asking vendor to supply Journal in easy format.

It will be helpful if library can make Wi-Fi available.

All the available online databases in library details informed by internal circular, intranet link, OPAC and institution website to users.

All the online databases news should be provided at the college website and it should be regularly updated.

An IT trained staff is required in digital Library for helping users.

Creating awareness about e-resources subscribed by Delhi University Library System.

Training and orientation programs on search techniques.

Manual of how to access e-resources.

More information is to be published to know what is available.

IP (Internet Protocol address) based access for online databases is very help full to access the campus wide access and also secure, outsiders cannot able to access the resources.

The future of the e-resources is very bright since E-journal are convenient and flexible , which allows users to spend more time involved in actual research, reading or writing ,rather than in searching for and obtaining articles.

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