

# INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT

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**IMPORTANCE OF OPEN ACCESS IN FLOW OF INFORMATION: WITH SPECIAL EMPHASIS ON RESEARCH**

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**ABSTRACT**

*In the 21<sup>st</sup> Century open access becomes an important part of the society by the students, researchers, scholars, even faculties get solutions of their problems with just a click from their PC's. According Daniel Burris "Knowledge is Power, not information. Information is power only if you can take action with it". This rules same follows in the time of ICT as many thing available on the internet is not information. Information can become remedies by using it in right manner. In this paper, authors highlight the importance of Open Access resources in various steps of research, which is a part of Information flow.*

**KEYWORDS**

Open Access, Information Flow, Research, ICT.

**1. INTRODUCTION**

**B**y 'Open Access' is meant the opportunity to see and examine the Book collection with as much freedom as in one's own private library"

S.R.Ranganathan, 1931; reprinted 1957, p.258-259.

Open access resources make knowledge and discovery freely available for those who need it. As search technologies gradually improve, knowledge seekers shall undoubtedly find it much easier to surface the pieces of knowledge needed from among a great variety of available information. Open access resources allow those who seek information to find those whose prior seeking has resulted in new perspectives, new data, and new knowledge. Open access publishing is an especially natural way for university research to be distributed for the greater good. The salaries paid to university researchers normally come from public money, by extension from the tax payers. Ethically, it seems a good principle that knowledge generated through the support of the general public should be equally available and, perhaps beneficial, to all the members of society.

No one is ever fully competent, because knowledge advances with increasing speed. Throughout the world, knowledge is being generated in incremental pieces; those envisioning innovation must seek out important pieces of knowledge everywhere and all the time.

In developing innovations and products for all including individuals or user groups, with special needs (e.g. the physically, cognitively, affectively, or sensory challenged), product innovators must be able to discover and be inspired by the knowledge generated through university research and company implementation. Open access publishing can play a vital role in disseminating both research knowledge and the results of applied experimentation.

If universities keep the new knowledge behind their walls or offer limited access to it, then they have overlooked their duties to society. And if government officials, who make decisions regarding university funding for research and dispersal of research knowledge, do not see that new scientific innovations must be easily and effectively offered for the use of society, then the barriers to innovative use of new ideas slow down the availability of knowledge to those who need it and who have paid through their taxes to create it.

The time seems right to give up the old images and practices regarding research, knowledge, and innovation. Open access publishing makes it possible, but also necessary to look at the role of basic knowledge within society and the roles of university research in the webs of innovation management in a new way. Keeping the above in view an attempt is made in the present paper, to highlight the importance of open access resources in various steps of research, which is a part of information flow.

**1.1 INFORMATION FLOW**

Diffusion or information transfer is a process by which an innovation or new idea spreads among the members of a social system-it is a type of communication process. It is spread of a new idea from its source of invention, creation or generation to its ultimate users or adopters, i.e., to the destination or recipients

The total flow of information consists (1) information seeking behaviour (2) information generation and (3) information dissemination / transfer.

Along with the conventional sources of information, accessing the web for timely, relevant latest information will yield to quality productivity of research.

**1.2 OPEN ACCESS**

Open Access is the "free, immediate, permanent, full-text, online access, for any user, web-wide, to digital scientific and scholarly material, primarily research articles published in peer-reviewed journals".

Open access provides direct links from bibliographical data of publications to the actual full text. As well as being of use and benefit to the academic community, it also allows free access to research publications to any online users.

**1.3 OPEN ACCESS RESOURCES**

Open-access resources are those that can be accessed by anyone at any time without restraint. When the resource is abundant, relative to the demand for it, an open-access regime may not only be unproblematic, it may actually be the best management regime since it involves so little oversight.

However when the resource is scarce, open-access resources may be subject to excessive use. Since the users claim over that the resource is only established by "the rule of capture", users have an incentive to harvest as much as they can as rapidly as they can. Instead of more conservative behavior preserving the resource in this circumstance, it could simply lead to resource degradation as other users simply increase their share.

Open-access literature is digital literature that is available on the web, free of charge, and free of most copyright and licensing restrictions. Committing to open access requires dispensing with the financial, technical and legal barriers that are designed to limit access to scientific research articles to paying customers. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.

**1.4 BENEFITS OF OPEN ACCESS RESOURCES**

1. Making the research easy
2. Helps in long-term benefits
3. Strengthens the research literature
4. Immediate access to literature with penny less expenditure
5. Easy access of institutional repositories
6. Open access is the best option
7. Acts as boost to the developing countries scholars
8. Encouragement by legislative initiators
9. Popularity by open approach

**1.5 RESEARCH**

Research is composed of two words 're' and 'search' which means to search again or a careful investigation to understand or re-examine the facts or to search for new facts or to modify older ones in any of knowledge.

Research is an inquiry into the nature of the reasons for and the consequences of any particular set of circumstances whether these circumstances are experimentally controlled or recorded just as they occur. Further research is interested in the repeatability of the results and in the extension to more complicated and general situations.

At every step of research, the open access resources come to the rescue of the researcher in support of his/her research.

**1.6 DEFINITIONS**

Francis Rummel: "Research is a careful enquiry or examination to discover new information or relationships and to expand and to verify existing knowledge.

Lundberg: "Research is sufficiently objective and systematic to make possible classification generalization and verification of the data observed."

According to Dr.S.R.Ranganathan, the father of library science in India, "Research represents a critical exhaustive investigation to discover facts, to interpret them in the light of known ideas, theories and laws in order to apply the conclusions to practical purposes."

In simple words research can be defined as "any scholarly investigation in search of truth for facts and for certainties".

**2 STEPS IN RESEARCH****OPEN ACCESS RESOURCES VIS-A-VIS VARIOUS STEPS INVOLVED IN CONDUCTING A SOCIAL SCIENCE RESEARCH**

It can be witnessed that innumerable open access resources are available free of cost to any user at any time. The question is how best the users are utilizing that research. It is obvious that research in general and social science research in particular, is time conjuring because to search information that supports research is as difficult as searching a needle in the haystack. A humble attempt is made in this paper to create awareness on some of the open access resources which help in various steps of research.

**2 IDENTIFICATION AND SELECTION OF A RESEARCH PROBLEM**

Selection of a research problem is a very important job for a researcher. The range of potential topic for socio economic research problem is as broad as the range of socio economic behavior itself. Socio economic life in modern times is full of innumerable problems which provide a researcher ample scope for identification of a research problem. The problem begins to appear when the need for this expansion or solution is urgently required. The existence of unsolved problems is the first symptom for locating a research problem.

**3 REVIEW OF LITERATURE: PRELIMINARY REVIEW PRIOR TO PROBLEM SELECTION AND SYSTEMATIC REVIEW AFTER SELECTION ARE NECESSARY**

An examination of the body of research literature reveals the accomplishment, current trends and the future requirements in the subject of the concerned research project.

Full text journal articles, e-books, conference papers, reports, etc are available in the form of open access resources in abundance to meet the purpose.

[www.doaj.org/](http://www.doaj.org/)

<http://www.springer.com>

<http://www.unescobkk.org/information-resouces/e-library/reference-resources/free/access-jounnals/>

<http://www.openj.gate.com/Browse/BySubject.aspx>

**3.1 FORMULATION OF THE SELECTED PROBLEM**

This stage includes definition of the problem, conceptual mode, elimination of the study, formulation of the objectives of the study and the hypotheses/investigating questions.

**3.2 OPERATIONALIZATION OF CONCEPTS: DEFINITION OF THE CONCEPTS, CONSTRUCTION OF INDEXES/SCALES FOR MEASURING VARIABLES****IDENTIFICATION OF VARIABLES**

The most important aspect of research is to identify the variables as this world help the researcher to operationalise the methods to be used for collection of data. The independent, dependent and if possible the intervening variables should be identified.

**DEFINITION OF CONCEPTS**

The researcher needs to know clearly the meaning and contents of every term he uses. It clarifies the issue and explains to the researchers, respondents and other readers of the research reports specifically and pointedly. The term concept must be defined both the abstract term and the general meaning it is intended to convey. This may be called the formal definition. The operational term by which it will be represented particular study should be given. This type of concept is known as 'operation definition' "the operational definition helps in collection of data in carrying out all research".

**3.3 PREPARATION OF THE RESEARCH PLAN; STATEMENT OF THE PROBLEM, OBJECTIVES OF THE STUDYING HYPOTHESES, OPERATIONAL DEFINITION OF THE CONCEPTS, GEOGRAPHICAL AREA OF THE STUDY, METHODOLOGY, SAMPLING DESIGN, RULES FOR COLLECTION OF DATA, PLAN OF ANALYSIS, OVER VIEW OF THE RESEARCH REPORT, TIME SCHEDULE****METHODOLOGY****3.3.1 METHOD OF INVESTIGATION**

The decision pertaining to method of investigation is to be done in the section. The researcher has to decide whether the research project is going to be empirical, in the sense of being based on primary data collected from the field, or analytical in the sense of being based on secondary data collected from published reports.

**3.3.2 METHODS OF COLLECTING DATA**

Depending upon the nature of the respondent and the type of data to be collected, the methods of collecting data need to be decided. Also various sources and nature of document or records should be listed out.

**3.3.3 SAMPLING DESIGN**

The researcher has to be decided the method, either census method or the sampling method to be adopted in the study with justification and the reason of the same. <http://www.vidyanidhi.org.in/home/firstpage.htm>.



**3.3.4 CONSTRUCTION OF TOOLS OF DATA COLLECTION**

Identification of data needs, delineation of data sources, drafting observation schedule, interview schedule/guide, mailed questionnaire and/or check list or experimental design, pre-testing and possible reason.

<http://sciencetray.com/technology/information/the-three-main-types-of-data-collection-tools/>

**3.4 COLLECTION OF DATA: EXPERIMENTAL/FIELD WORK: PREPARING SAMPLE FRAME, DRAWING SAMPLE OF RESPONDENTS; INTERVIEWING THEM/MAILING QUESTIONNAIRES TO THEM AND FOLLOW-UP**

The social networking groups are helpful in collection of data. Questionnaires can be mailed to a group of professional members through these groups, which are membership free.

Some of the examples are;

<http://groups.yahoo.com/group/nmlis>

<http://www.facebook.com>

[www.orkut.com](http://www.orkut.com)

**3.5 PROCESSING OF DATA: THIS STEP INCLUDES EDITING, CODING, TRANSCRIPTION, TABULATION, CONSTRUCTION OF TABLES AND CHARTS**

<http://www.geovisite.com/en/directory/data-processing.php>

<http://www.staff.vu.edu.au/mcaonline/units/statistics/presentation.html>

**3.6 ANALYSIS OF DATA**

Suitable statistical techniques are to be applied to analyse the data. Computer software packages are available for application of various statistical techniques like correlation co-efficients, regressions, multivariate analysis and the like. They facilitate complex analysis with great ease and tremendous speed.

<http://www.freestatistics.info/en/stat.php>

[http://www.psychnet-uk.com/experimental\\_design/software\\_packages.html](http://www.psychnet-uk.com/experimental_design/software_packages.html)

**3.7 REPORT –WRITING**

Report writing is a crucial step in the entire process of research. A carelessly prepared report affects the degree of respect the research commands and at the same time a carefully prepared report will bring reorganization to writer and the work in to the limelight. Therefore, writing of the report should be taken as an equally important task in the entire research process and sufficient time should be devoted to it.

[http://portal.acs.org/portal.fileFetch/C/CTP\\_005606/pdf/CTP\\_005606.pdf](http://portal.acs.org/portal.fileFetch/C/CTP_005606/pdf/CTP_005606.pdf).

Another key part of the research work is bibliography which is a list of documents that are prepared. This has to be prepared basing on specific standard. Following are some of the examples.

[www.mlastyle.com](http://www.mlastyle.com)

[www.apastyle.org](http://www.apastyle.org)

[www.chicagomanualofstyle.org](http://www.chicagomanualofstyle.org)

**4. BARRIERS TO LIMITED USE OF OPEN ACCESS RESOURCES**

- 1) Lack of knowledge in the use of computer and the internet.
- 2) Lack of information sources.
- 3) Lack of involvement in research.
- 4) Lack of financial resources to produce quality research.
- 5) Lack of encouragement from parent and professional bodies.
- 6) Lack of congenial environment.
- 7) Lack of proper infrastructure facilities.

**5. SUGGESTIONS**

While appreciating the initiative of U.G.C in the complication of electronic thesis database, the authors of this paper propose the following for better utilization of open access resources.

1. Universities need to compile in house electronic thesis database both at department and submit it to U.G.C, as well as university level to make a comprehensive and authentic open access sources available to the interested researchers.
2. Periodical orientation programs are to be organized by the libraries, to the researchers to enhance the efficiency in the use of open access resources.
3. There is a need to provide sufficient financial assistance and infrastructure facility by the U.G.C and academic institutions concerned, to produce quality research.

**6. CONCLUSION**

Open access helps to ensure long term access to scholarly information. Unlike articles that are licensed in traditional article date bases, libraries and others can create local copies and repositories of these resources, libraries, by working together to make repositories of open access literature, can ensure continued access to these scholarly publications in the distant future.

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With sincere regards

Thanking you profoundly

**Academically yours**

Sd/-

**Co-ordinator**

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