

# Provision of Current Awareness Services and Selective Dissemination of Information by Medical Librarians in Technological Era

Chioma Euriel Uzohue<sup>1</sup>, Japheth Abdulazeez Yaya<sup>2, \*</sup>

<sup>1</sup>Nigerian Institute of Medical Research, Yaba, Nigeria

<sup>2</sup>Nigerian Baptist Theological Seminary, Ogbomoso, Nigeria

## Abstract

This paper examines provision of current awareness services and selective dissemination of information by medical librarians in technological era. Medical Librarians play a very essential role in the health sector. They provide educational resources to support health professionals and researchers to stay abreast of new developments in their area of interest especially on research, patients care, studies and teaching. Keeping up to date with latest information in this information intensive age has competitive advantages in as much as informed decisions are made as well as seeking authoritative health information. The paper starts its discussion with the Overview of medical libraries, Information and Communication Technology (ICT) and Libraries, then proceeds with a question why do we need Selective Dissemination of Information (SDI)? presents advantages of current awareness services (CAS) and SDI services, shows traditional methods of CAS & SDI, CAS and SDI services in ICT era, packaging of information to meet specific demands, and concludes with a call on medical librarians to ensuring that health care providers and health professionals should be taught how to use ICT tools to access authoritative, reliable, relevant, accurate, up to date, and timely published information or sources that meets their information needs both in research, learning and studies.

## Keywords

Current Awareness Services, Selective Dissemination of Information, Health Professionals, Information and Communication Technology, Medical Librarians, Medical Libraries

Received: May 23, 2016 / Accepted: June 7, 2016 / Published online: July 15, 2016

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## 1. Introduction

In a medical or research libraries, provision of Current Awareness Service (CAS) and Selective Dissemination of Information (SDI) are very important services rendered to its users by medical librarians. It is a statutory duty which the medical libraries provide to her various users to meet their information needs. In view of this, a library is an indispensable institution in every organisation and its major function entails provision easy access to its various collections both print and non-print resources. The library

plays a very important role in the health sector and an active health sector needs well organised documented health related information for dissemination of information on research, teaching, learning and patients care.

### 1.1. Overview of Medical Libraries

Medical libraries are special libraries set up to cater for and the information needs of professional health workers within and outside the organizations (hospitals & health centers) saddle with responsibilities of providing health care services to the general populace. According to Gopinath et al [4],

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\* Corresponding author

E-mail address: [yjapheth@yahoo.com](mailto:yjapheth@yahoo.com) (J. A. Yaya)

libraries are mainly entrusted with a host of pre-determined tasks like acquiring, organising, preserving, retrieving and disseminating information to users. From ancient times to this present internet age, the primary objective of library has always been this. However, the way this purpose has been achieved has drastically changed". It is the medical librarian that will assist in achieving these aims and objectives.

However, medical libraries aid health professional with current information. Their services have been affected by the fast growing changes in Information and communication technology (ICT). This is achieved by provision of current awareness services (CAS) and selective dissemination of information (SDI) which is an indispensable and dynamic service for gathering information for the users. Medical librarians are integral part of health care squad. They are skilled professionals who assist health professionals, patients, researchers and students in finding health and scientific information to improve, update, and assess information in their various fields in medicine and allied subjects. They provide access to resources in a variety of formats, ranging from traditional prints to electronic resources and data. Medical librarians design and manage the websites, internet, and blogs in the medical libraries. Oduwole, Idowu and Ladipo [11] examined the roles played by medical libraries and information and communication technologies (ICT) tools in medical research. The study highlighted the role of medical libraries as an information resource centre in meeting the information needs of the health professional with the use of search engines and social networking tools that can be used by physicians and health information professionals in decision making processes. The authors confirm that libraries have witnessed a tremendous increase in the availability and use of electronic information resources across the globe. The services provided by medical librarians are important means of keeping the users current and up to date with new arrivals in the library collections and therefore the needs for readymade information that may immediately solve user's informational requirement became necessary especially in selection, evaluation of sources and packaging of information to meet specific demands.

The emergence of information and communication technologies (ICT) has changed the way and manner current awareness service and selective dissemination of information services are provided in the library. According to Oluokun [13], ICT "has radically influenced the way knowledge and information are generated, developed and transmitted". The author reiterated that "ICT has also reduced the entire world into a global village and replaced the use of physical strength in performing task with automation" (p. 660). This implies that with ICT, scope of library services have expanded and became numerous with the use of internet and web 2.0

technologies with its supporting services and the use of mobile phones.

Libraries have also incorporated internet and social media tools in order to render innovative library services like current awareness services (CAS) and selective dissemination of information services (SDI). The methods and tools for CAS and SDI services include internet and web 2.0 technologies, Online medical and Bibliographic databases like: (Medline/pub med, Hinari, Ajol, OVID full text, Elsevier, Science direct, EBSCO and OPAC i.e. online catalogues), Use of social networking Media like (blogs, rich site summary, Flickers, Face book, MySpace, YouTube.), Mobile phone services such as sending of bulk text messages, e-mail and e-alert services, packaging of information to meet specific demands, analysis and interpretation of information, selection and evaluation of sources, These tools have brought considerable improvement in information provision and services in medical libraries.

Also, in this technological era, users need readymade intelligence information. They may even want robot that can forecast, determine, predict or have knowledge of when new information will be released and as the event is happening, they are accessing the information through RSS feeds, e-mail and e-alerting system or any other electronic systems. Current Awareness Services is an attempt to inform the library users of current library acquisitions available as well as any other relevant resources of the library to the notice of its users. It is a device used for alerting specialist on latest development to help in making users to stay current in their area of interests. According to Anjaian [2], H. P. Luhn, who first gave the concept of SDI defines it as that service within an organization which concerns itself with the channelling of new items of information from whatever source to those points within the organization where the probability of usefulness in connection with current works of interest. Reitz [6], defined CAS as a service or publication designed to alert scholars, researchers, readers, customers or employees to recent published literatures in their field of specialization, usually available in special libraries serving companies or organisation and institution in which access to current information is essential. The author further to explain that current awareness services is the way of bringing to the notice of the users current information available or knowledge helpful to development in their area of specialization and it is an information service rendered to and for everyone. To Kamber [8], CAS is the most used information services to support research activities. Medical librarians compile current awareness bulletins, reading lists, table of contents and bibliographies using predefined search strategy and running on the databases online periodically and getting the required results to serve its users and this output

are stored and disseminated online through the internet, intranet, mobile phones services and e-mails. As the library continue to acquire materials, the collection continue to increase and there will be difficulties to retrieve the particular material a researcher needs hence the need of selective dissemination of information.

Opara [15] posited SDI as the provision of the librarian and the information specialist, of information to satisfy the needs and interest of users in order to maximize both information services and research activities based on systematically identified and analyzed profiles of individual researchers. It is a personalized service which research library renders to the staff of the institute who may not have time to visit the library because of the nature of their research. SDI is directed to a targeted group or individual user and its main purpose is to assist users by rendering information services that gives up to date and current literature in their subject of interest as well as helping users to overcome the information overload which results from information explosion emanating from books, journals, newspapers, seminars and workshop papers, theses and dissertation and electronic sources from the internet and World Wide Web (WWW). This service is for everyone interested in scholarship and research in a particular literature provided the user is registered with the library giving their personal identification information. SDI is not only rendering information to users but also user oriented in the sense that it is targeted to specific users. The success of CAS and SDI depends on the knowledge of library resources, new technologies and its applications, willingness and resourcefulness of the medical librarians, response from the users and organization of the library.

Kamber [8] and Johnson et al [7] observed that the concept of current awareness services as the most used information service to support the research activities as well as alert scholars, researchers and health care practitioners to recent published literatures in their field of specialization and he went further to say that librarian who provides these services use various methods to keep current with academic and professional literatures. With the assistance of medical librarians, CAS and SDI are services provided by medical/special libraries to provide efficient and current information to the right users at the right time. The only difference is that SDI is for targeted or specific user with special research interest.

## **1.2. Information and Communication Technology (ICT) and Libraries**

Information and communication technology (ICT) encourages creation and sharing of information. it is also used to perform certain activities in the libraries including CAS and SDI. Ogunsola and Aboyade [12] defined ICT as

the set of activities which are facilitated by electronic means the processing, transmission and display of information. Components of ICT include computer, radio, television, telephone and internet connectivity. The application of ICT in the library has resulted in the effective management of library services and resources especially in the area of CAS and SDI. Adebayo [1] was of the opinion that more dynamic, challenging and practical user-friendly services such as CAS, SDI, literature searching, Indexing and Abstracting Services and functional ICT services should be given priority. He went further to say that libraries are facing new challenges, new demands, new expectations and variety of information services to meet the users' needs and requirements. Medical librarians have to adopt various tools and techniques offered by ICT to satisfy these information needs of their users.

Hanif [5] pointed out the fast pace technological developments have changed the way user's access and retrieve information. This is seen in the effective delivery and dissemination of information which has been made easier with the use web 2.0 and its technologies. Kanamadi and Kamber [9] noted that information technology has influenced the very nature of business and management of libraries. They went further to say that the technological tools for disseminating information have progressed from conventional books to electronic journals and online database making it possible to explore the worldwide pool of knowledge while sitting at ones desk or at home. Shafique [17] found that new libraries services that can enhance the access to library resources were open access to the library collection, SDI in relevant research areas, effective reference service, current awareness services, library orientation, help in online searching, document delivery, blog development, email alerts, photocopying and interlibrary loan. With ICT the new library services provided will reduced some difficulties medical libraries have in satisfying the information needs of their users. The amount of information created this day is so huge that using the traditional method of locating and retrieving information leaves much to be desired. Medical librarians should be able to know and understand the current development on the web and monitor on going news and resources in their profession and locating resources for their users.

## **1.3. Why Do We Need SDI**

Literatures in medicine and allied subjects at present are doubling at an alarming rate because of increase in the volumes of recorded information which is also growing at an alarming rate. The Kenya Methodist University Library [10] agreed that the purpose of SDI is to help users to cope with information overload. Another reason is that the users don't have time for reading probably because of the nature of their

work and little time for research and as such may prefer readymade information. The main purpose and objectives are to satisfy the users' informational requirements and needs.

#### 1.4. Advantages of CAS and SDI Services

The current awareness services: According to Edem [3] and Unegbu [18], it is the responsibility of medical librarian to provide these services for the benefit of all her users. These include:

- i. It helps to keep users better informed.
- ii. It provides access to needed documents.
- iii. It supports Academic, Professionals and Management skills.
- iv. It provides information in a preferred format.

While the advantages of SDI Services include:

- i. It brings the right information closer to the user.
- ii. The information user will have time to concentrate on other matters instead of searching and sourcing for information resources by him.
- iii. The medical librarian provides information to the users at their convenient time.
- iv. It creates a good relationship between the librarian and information users.
- v. The users will have access to the right information at the right time and place.

#### 1.5. Traditional Methods of CAS and SDI

There are traditional ways of disseminating information in the library to a target group or individual interest. It is important that librarians knows the right information services to provide in order to satisfy information needs of library users. The traditional CAS and SDI services rendered by libraries are as follows:

- i. Display of newly acquired materials on the display racks in the library for people to view it.
- ii. Display of table of contents of newly acquired books and pasted on the notice board at strategic places.
- iii. Newspaper cuttings arranged in an album or in a file in an office cabinet. Creating this awareness helps researchers and library users to have access to current information and development in their area of interest.
- iv. Alerting heads of department when new materials in special areas for some departments are acquired. The libraries inform the faculty members through their heads of department about the new materials acquired that might be useful to their courses of study.

- v. Compilation of bibliographies, reading list, indexing and abstracting of books.
- vi. Publishers also engage in CAS and SDI when new books are produced and their catalogues sent to their various departments, showing them new publications from their company. The catalogue could be general one containing all the publications and it could also be on subject area. Compilation of bibliographies in different subject areas are prepared and displayed on the shelves for uses to consult.

## 2. CAS and SDI Services in ICT Era: Methods and Tools for Application

Information and communication technologies have brought changes from the traditional ways of rendering CAS and SDI services to its users. This work focus on using ICT tools and application as a way to serve users effectively using variety of methods to carry out CAS and SDI services. With increasing need for information by clients, medical librarians needs competitive intelligence skills utilizing ICT tools and techniques in gathering actionable information that meets the needs of the users as well as providing information for informed decisions in their areas of interest. In this case Medical Librarians has to select, acquire, process, evaluate, analyze and disseminate information to satisfy the needs of the users.

### 2.1. Internet and Web 2.0 Technologies

Internet and web 2.0 Technologies has made Current Awareness Services and Selective dissemination of Information an easy method of serving users has also allowed medical librarians to send specialized information to individual or group of individual that have the same interest. It is a powerful platform for providing access to Information via the internet in different medical databases like Medline/pub med, Hinari, Africa Journal Online (AJOL), web OPAC (Online Public Access Catalogue) and other health related e-resources e-mail, e-Alert. The internet, which is a global systems of networked computers with its different services and applications has become a major source of information in the current times and the medical librarians being proactive in nature is committed to provide specific information services such as CAS and SDI to the health and allied professionals.

Internet and web 2.0 technologies has greatly facilitated CAS and SDI which allows medical librarians to send specialized information to individuals or group of Individuals that have the same research interest. The internet provides many

services including World Wide Web (Web 2.0 technologies), e-resources-Alert, and electronic mails. The web is a very popular service on the internet and it refers to the collection of information that is accessible through the use of blogs, discussion forum, MySpace, LinkedIn and e-Alert. These tools has greatly enhanced CAS and SDI by capturing current information and disseminating them among the users through Library blog site or library face book account and mobile phone services. These helps to connect people who collaborate, create and share similar research interest. The use of local Area network (LAN) and Wide Area Network (WAN) makes information to be used immediately as they are retrieved from the network.

## 2.2. E-mail Alert

This is another way of sending messages to your users. It is a method of composing, sending, storing and receiving messages over the electronic communication systems. The users receive through e-mail continuously update on their areas of research interest directly from the internet. With internet, through e-mail you can access a wide variety of different discussion groups and social networking sources. As soon as the information hits your e-mail address, an alert will be given to notify you of the mail especially when you have e-Alert and RSS feeds.

## 2.3. Use of Social Networking

This is a kind of innovative library services whereby the latest technologies and trends are used to make their services popular and user-friendly. The use of social networking likes LinkedIn, RSS Feeds, Myspace, facebook, twitter, blogs, social bookmarking, YouTube, offer individual ways to collaborate, communicate/share information with broad set of other individuals. Social networking allows individuals to create profile for themselves on the web and share profile with other users with similar interests to create a social network.

All these concepts allow medical Librarians to create, share, collaborate and communicate specialized information to their users as well as making them to get closer to primary sources to gather information about the needs of users. Medical librarians should encourage their users to register with these social media indicating their area of interest e-mail address while libraries should open bloggers to enable them post information and materials that will meet the health information needs of the medical professionals. Medical librarians use library website and social media to display and exhibit services to attract users and perform Current Awareness Services (CAS) and Selective Dissemination of information (SDI).

## 2.4. Databases

A lot of medical databases Linked together can provide SDI and CAS services to users. The Medline/pub med, and Hinari are Linked to other health related resources are used to facilitate CAS and SDI Services. There are more databases like the Elsevier, Science direct, Academia, Ovid and Scopus, e-journals, e-books, web OPAC and indexing and abstracting databases. Some of these databases allows for Auto alerts. When you register, you can automatically receive an e-mail or RSS feed will be given whenever the databases are updated. Medical Librarians should devote their time in searching the internet to get the newest information for their users.

## 2.5. Mobile Phones Services

As new users come into the library, it is advisable to register their names, phone numbers, and their research interests for Medical librarians to serve them better. For current awareness services, Bulk text message should be used to convey information to users while in selective dissemination of information services, individual text message should be used. It is easy, cheaper and fast to pass information to those who need it using mobile phones. With mobile phones, users can subscribe to web OPAC using software on the phones.

## 2.6. RSS Feeds and E-alerts

These are very important tools for CAS and have become very popular in recent times. They help information producers and web masters to broadcast information across the internet and to keep abreast with latest news. They are valuable means of communication with end users of information. These tools are used to increase users' awareness of e-resources available in the library for their research. The shrinking budgetary allocation for libraries and high cost of journals has made publishers of most journals to provide free e-Alert services to users to get free content pages of the journals.

Individual can register to get current information on their area of interest once current news in that area emerges. RSS Feeds gives up-to-date information from journals, books, blogs and other electronic sources. Librarians could also conduct comprehensive online searches on regular basis and then locate and copy current information from RSS feeds and then sent to their users. A good example of RSS is blogs. Blogs is the short form of Weblog. It is a web- page that provides publication on specific topic or subject. It is usually in the form of short entries arranged in reverse chronological order, the most recently added piece of information appears first [Reitz, 16]. Blogs offer individual ways to communicating useful information with broad set of other individuals, the entries on blogs are displayed in

chronological order and therefore ideal for keeping up-to-date. This tool can also be used by libraries to get closer to primary sources to gather information for the needs of users. Blogs enables librarians to set up an RSS Feeds to alert readers of new entries.

### **2.7. Packaging of Information to Meet Specific Demands**

Medical libraries and information professionals that are service oriented see these services as a way of displaying the services the library offer as well as marketing their skills. Onatola and Oduwole [14] reiterated the need for the information access and packaging coupled with computer literacy to provide supported services to researchers especially on the area of bibliography compilation, literature search of relevant health information and clinical informative patient care. Packaging information involves selecting, analyzing and processing of information with a view of communicating information in a convenient and effective form to meet the target audience. It is not really easy to package information. The Board Bulletin services (BBS) is a form of online system of packaging information for cost effective distribution in electronic format. This tool support interactive communication between users on a variety of subject. An example of these are the compilation of bibliographies on specific subjects, newspaper cuttings on medical issues, indexing and abstracting in subject area of interest, online information gathering from specific sources and performing bibliographic search services.

The newspaper cuttings can be displayed on BBS application to be shared on the network through any of the social networking tools. Current periodical list, scanned table of contents, intelligent reports on search services from web OPAC and e-journal publishers and bibliographic information are repackaged for use by the medical librarian. The medical librarians working on queries given by the users creates an on line document which serves as a collaborative work space to knowledge, contacts and events related to the social media like MySpace, twitters, flicker, YouTube and blogs. The work space can also be shared with other users of the services. Information packaging is a means of prompt delivery of relevant information which entails a systematic process of adding value to information services. Medical librarians keeping an eye on the websites of societies in different subjects gives conference alerts to its users on areas of interest. Production of library e-bulletin, newsletters and library catalogue cards are also common CAS products via intranet or portals and the internet. Information packaging is the presentation of information in more understandable, readable, acceptable and usable forms. For Librarians to meet the user's needs; the information packaging must have a clear

presentation considering the accuracy and completeness of the sources.

### **2.8. Analysis and Interpretation of Information**

Analysis and Interpretation of Information is known to be challenging. Medical librarians need to weigh information, analyze and interpret request from users properly in other to know the appropriate sources to consult as well as bibliographic information to ascertain the authoritativeness of the information. According to Hossan and Islam [6], SDI is a type of CAS which under optimum condition involves screening of documents, selecting information exactly tailored to meet the specific research needs of each user or a group of users and supplying the information directly to each individual or group so that users can keep abreast of the latest development in the area of his specialization. Information professionals should be able to analyze the request of users properly in such a way that queries can be turned into intelligence which will be used for competitive advantage hereby adding value to the library services. Any request that is not structured well may lead to misunderstanding of the query that will give rise to materials that will not meet the information needs of users. We use analysis for clarity of users' queries, proper selection sources and bibliographic information suitable and important to users. Analysis during gathering processes saves time and hours of collecting irrelevant information.

### **2.9. Selections and Evaluation of Sources**

Libraries will have to select and evaluate the sources or databases where they get the information which they disseminate to users. They have to consider the authority, language, authenticity, the coverage and arrangement. It is the work of a Medical librarian to select and evaluate sources to know the best to serve their users need as SDI involves disseminating needed information as well as selecting the appropriate source for that information.

## **3. Collation of Information Sources**

Libraries collate information and sources in anticipation of users need. This SDI and CAS are seen in the compilation of bibliographies and newspaper cuttings in suspected field of interest is prepared with the hope it will be useful one day. Scanned newspaper cuttings on issues of interest are prepared in anticipation of demand of such items. The scanned newspaper cuttings, bibliographies, reading lists are displayed on BBS where you can also browse to have access. this newspaper cuttings can be filed in a cabinet as in the

traditional form, while the use of MySpace or linkedIn, Flickr, YouTube, and Bulletin Board services (BBS) are examples of media sharing sites that allows users to share pictures and other multimedia content.

## 4. Conclusion

Current awareness services is for every user to be aware of new information available in the library while selective dissemination of information is a specialised form of current awareness services designed to disseminate information. Medical Librarians have different ways of serving their users in this information age and these tools and methods have been discussed. Medical librarian should not ignore rendering these services, having in mind the objective of selective dissemination of information which is provision of current information on a particular subject to the right users and at the right time and place. CAS and SDI are indispensable services which are rendered by medical librarian using ICT tools to achieve it effectively. Medical librarians should ensure that health care providers and health professionals should be taught how to use ICT tools to access authoritative, reliable, relevant, accurate, up to date, and timely published information or sources that meets their information needs both in research, learning and studies.

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