Computers and Selective Dissemination Information Services

Abstract

SDI services were provided to the students and teachers by both manual and mechanical means from the earlier times to the present day. However, many of the information scientists or Library professionals presumed that with the advent of computer and online access to information, SDI services were not of much value to the specific users. Information filtering mechanisms that are being used to retrieve information from the Internet has given a new lease of life to Selective Dissemination of Information (SDI) services in this information age.

Keywords: SDI, CAS, Information Scientist, Library Professionals, Information age, User Profile, Document Profile, User Interface, INSDOC, DECIDOC.

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Introduction

Computers are being used in the area services is termed Selective Dissemination of information. This service has been developed to relate users to documents that may be of interest to them. Computers, making a dent in the 1950, started to be used by the current awareness services also. Ham Peter Luhn, a computer scientist in 1961 service. This service has been developing to relate users to documents that may be of interest to them. SDI which is becoming more and more important as a way of providing CAS that computers are now being increasingly used for information work. Hans Peter Luhn defined SDI service as concerns itself with the channeling of new items of information from whatever source to those points within the organization, where the probability of usefulness in connection with current work or interest is high. Luhn's system has the following features described is his definition of Selective Dissemination of information-

1. To channel the new information irrespective of the source to user.
2. Matching of users' profiles with the new documents of information.
3. Usefulness of information is the objectives of SDI to the organization which should be treated at high priority.
4. The necessary feedback is taken to update and modify.

SDI Service has four phases, namely, selection, notification, feedback and modification. Selection phase includes the input of the SDI system consisting of profiles of users' interest. Notification includes the items selected for an individual user to be notified. Feedback helps the LICs to analyze the answer of the user and to ensure their system working. Modification can be changed in the interest of the users or the changes that are done after the feedback from the users.

Selective Dissemination Information should have the following components- User profile, Document profile, Hardware, Software, User-Interface.

The User profiles file is again a computer readable file. The building of user profiles is an important activity and is stained later. The use of some terminology to describe document content and user interests answers the matching of user interests with document content. The Document profile file containing document description and terms representing the subject (matter) content of the document being described is the document profile in computer readable form the term chooseto describe document content are usually drawn from a thesaurus.
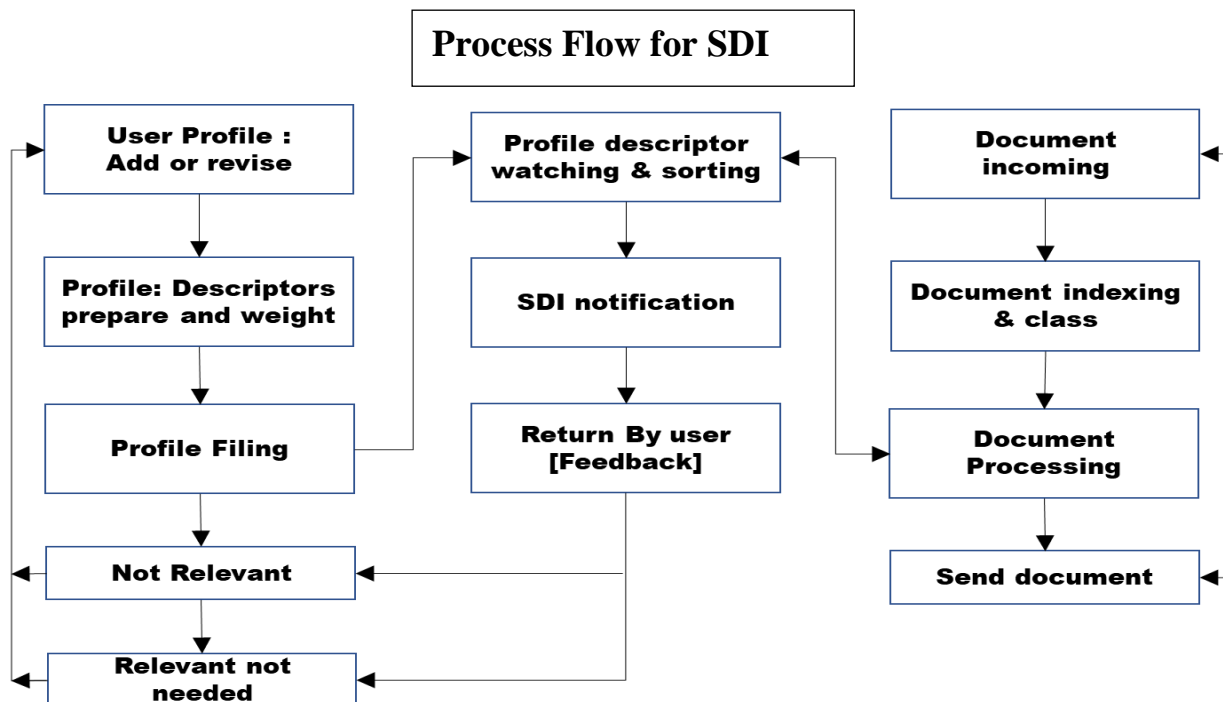
A mechanism to match document descriptions with user descriptions. Component authorities are expected to take appropriate decision in the regard before the SDI system is actually designed and made operational. Software is one of the essential components of the SDI system. The first one is to develop in house software tailored to the requirements of the particular library or information unit and then offer SDI service. The second is to identify commercially available package which

can be run on the in-house computer system and provide the SDI service using it. Since the second method is generally accepted as a pragmatic one, by many libraries organizing computer-based SDI services. Every SDI system should have a mechanism which permits interaction between the users and the SDI system. This is essential the ensure proper communication between the user and the system as also to make the SDI service more purpose oriented and effective. It concludes like- Notification of recent literature, Request to users to furnish feedback without fail. The feedback may be positive or negative depending upon the relevancy and usefulness of the items received by him, Information intermediaries.

Process Flow for SDI

Once the policy aspects associated with the design of an SDI system are decided by the concerned authority, appropriate decisions as regards to the components discussed in the previous section are taken. The next stage is to organize the SDI system step by step and operate it.

Objective of the Study

Some of the objectives of selective dissemination of information (SDI) services are as follows:

1. To provide current information on a predefined area of interest.
2. To receive, scan and provide the literature / information to the right users at the right time.
3. All the current information which is relevant to the interest of the user must be brought to the notice of the user (notification).
4. All the relevant information which is published elsewhere in the world (in English or other languages) should be located through various sources.
5. To achieve current requirements through the scan of current material such as journals, current awareness bulletins and other important resources.
6. To save the time of the user.
7. No irrelevant documents should be brought to the notice of the user. Only the selective and relevant documents should be brought to the notice of the user.

Review of Literature

Selective Dissemination of Information: A Review of the Literature and the Issues by Judith Holt Connor *(The Library Quarterly: Information, Community, Policy*, Vol. 37, No. 4 (Oct., 1967), pp. 373-391 Published by: The University of Chicago Press)**.**

This paper review of literature on selective Dissemination of Information and a discussion of the issues involved. The term " selective Dissemination of Information" (SDI) is most often used to describe system based on H.P. Luhn's equipment as a means of matching the term of user-interest "profiles" against document descriptors and selecting those documents with a specified degree of similarity to the term of the the user-interest profile. However this paper views SDI in a broader context as a type of information service.

Selective Dissemination of Information (SDI): A Case Study of Central Water and Power Research station (CWPRS) by M M Rao, Central Water and Power Research Station, Pune. (Annuals of Library Science and Documentation 1993, 40(4), 146-154).

One of the major function of a library is to scrutinize publications immediately after receipt, make a selection of publication pertinent to the programe of the organization and bring individual item to the

attention of the user to whom it concerns. This is generally knows as "Current Awareness Service" that is directed to the community of scientists as a whole or in groups. A refinement of Current Awareness Service is the Selective Dissemination of Information.

Conclusion

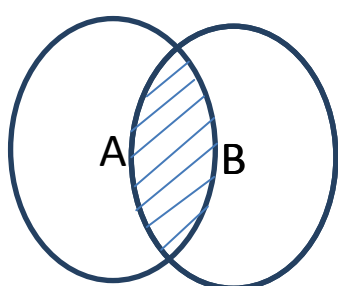The essential steps needed for this purpose are –

1. Creation of a document profile or database
2. Profile construction
3. Matching
4. Notification
5. Response or feedback
6. Readjustment or rejuvenation of profiles

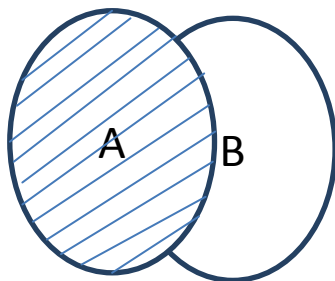Creation of a document profile, it involves following operations—

1. Selection of appropriate bibliographical items to be included in the document profiles

2. Transfer of the references into computer readable media
3. Reading of the references by an appropriate input device and storing of the information on storage media
4. Conversion of the references into an appropriate bibliographic record format
5. If in case an externally generated database is used for providing SDI service reformatting of the entire database into the processing format of the search software
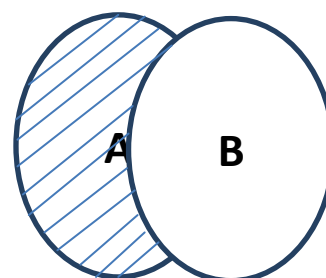6. Preparation of searchable file

So, the documents are analyzed and the subject content of each them is represented in the same way or in the same indexing language that has been used in the preparation of the users profiles. This is to ensure that a comparison could be made. These documents descriptions are then organized into a document profile file.

AND   OR   NOT

User profile construction is the most important part of the SDI system. It involves the userto be asked to give hi needs. Then the user is asked to give the list of title of his interest and organization. In whose work he is interested et, In addition to the above interests he is also asked whether he wants the information to be broad or specific. All the above information helps in the construction of user profile. This makes some SDI service a different one as compared to the other CAS.

The User profile is similar to a mathematical expression with Boolean operators And, OR and Not.

1. The expression A and B means set that contains elements of both A and B.
2. The expression A or B means a set that contains elements of A only, B only or both A and B.
3. The expression A not B means a set that contains elements of A which are also not elements of B.

With the help of the above operators, it is possible to build user profiles accurately as an expression which depending on what the user actually wants or finds useful.

At fixed intervals, say weekly or fortnightly the two files, i.e. the document profile are compared. When a close match is observed as per instructions between any user profile and a document record the details of both the record are noted.

Each individual user receives notification from the system, if any close match is observed between his profile and any document record. The

notification is sent to alert the users that contain documents are likely to be relevant to his interest. It may include only the base citations of the documents or citations with abstracts or key words.

An important feature of an SDI system is its mechanism of feedback. An instrument is provided, or a mechanism is created through which the response of each recipient to each notification can be obtained or observed by the system. Once the feedback from a user is received by the library and information Centre, They are expected to analyze the feedback. This is to ensure that the items being disseminated are infact useful to him, also to conclude that whether profile is relevant. Luhn also envisaged another type of response; A recipient might instruct the system that a particular document notified to him would be of interest to another member. He called it referral.

Meaningful interaction between the user and the SDI system being after he has been notified. When a user indicates through his feedback that his output was not useful, the SDI system operators being to modify his profile, The modified profiles performance is again monitor to ensure that it is better than the earlier profile.

SDI has changed since its inception in 1960's by Luhn. The age now is of computer-readable document databases available in the market. Organization can subscribes to these databases and then install a SDI system. Buying a database is an expensive affair but this is feasible for an organization having large number of users. It is no longer

necessary for each organization as almost all areas of science and humanities now have databases computer readable. In India INSDOC established such as information dissemination centers at the IIT Chennai in 1970's. A Data entry work sheet and a copy of the user profile prepared for the SDI service designed by DESIDOC.

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