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Bridging the information gap with LinkOut: how this powerful feature could meet user's needs

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To help explaining the basic concepts of this service, each letter in the word LinkOut is used as a reference point: Linking Information through the Network to share Knowledge, in an Open access way, for the benefits of Users, thanks to the enhancement of Technology.

Linking together disparate sources of information is a functionality provided by technological advancements which can help to better serve the Internet users community.
Given the increasing amount of information available on the web, which can make of an online research a frustrating time-consuming experience, web users are becoming more and more demanding. They not only require easy access to the information they are searching for, but they also want to be given access to all relevant data in an instant, possibly without the preclusion of any interesting material. In other words they want to download all useful information to their desktops in a "one-stop" search, with no intermediate steps, in order to save time and money spent in front of their PCs searching for information.

Information retrieval (IR) is rapidly evolving thanks not only to the opportunities offered by the development of powerful new technologies applied to database systems, but also to the developments of theoretical, behavioural and cognitive studies whose models of information seeking behaviour IR is increasingly using. If to acquire information in every day life we follow a pathway which is not statical, hierarchical, linear (the so called "Berry-Picking Model"), we are then prone to meet our information needs following the same patterns when searching the Internet.

Open access is rapidly spreading. Its main commitment is a free and unrestricted availability of scientific information through the Internet, "...permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, (...) without financial, legal, or technical barriers other than those inseparable from gaining access to internet itself". LinkOut is an important step towards this goal. Even if not all full texts are free (according to each publisher's policy), all PubMed Central papers (the open access repository of the NLM) are freely accessible through the LinkOut service.

Network users' pathways to information (browsing, linking, expanding, relating, enhancing) are very similar to human thinking patterns, therefore modern database systems, far from the old command-language interfaces, tend to be inherently interactive, flexible, associative, reticular, non-sequential, net-like. The LinkOut service is an important turning point in the redesigning of database systems to reach those "multiple goals" which are believed to be the true objective of information retrieval nowadays.

Users' expectations can be matched by information providers through locally created links to other sites where persistent, relevant and valuable data reside. Forging appropriate links at the right time, at the right level of detail, enables website visitors to directly access a cluster of information tailored to their needs, without sifting through mountains of information. On one hand, linkage operations allow website owners to enrich and supplement their content and, on the other, useful links provide users a means to have what they need at their fingertips, as they can easily and quickly locate additional information to extend their research.

Knowledge is but the true key word in IR. It is the fullfilment of all user's information needs which however can only be reached when the information sought after is obtained by using a query which is not only logical and relevant, but also "useful", both to the user at intellectual level and to the whole community (from theory to practice). Therefore knowledge, according to many, should be freely and equally accessible from all, with no boundaries of any sort. The NLM is rapidly moving towards this goal and the free LinkOut service is also a way to achieve it.

Technology is changing the Internet both in terms of the network itself and in terms of the services and functionalities it can provide. Organizing and linking resources together offers navigation focused on audience needs, through the creation of integrated information spaces, capable to put the right data into the right hands in a few moments. Undoubtedly, outbound linking is one of the best uses of the Internet that the information industry can make. In fact, it gives resource providers benefits like broader coverage, increased visibility and higher search engine ranking and, at the same time, it plays a role of the utmost importance for the dissemination of communication to wide audiences through the sharing and exchange of information even beyond traditional disciplinary boundaries.

LINKOUT

In April 2004 the Editorial Service of the Istituto Superiore di Sanità (ISS) received a warm "Welcome to the MEDLINE/PubMed family!" by the NLM.The reason is that the ISS science journal Annali dell'Istituto Superiore di Sanità was approved for electronic submission to NLM's MEDLINE/PubMed system and for participation in the LinkOut program: access from the PubMed Database to full text of its articles. ISS became therefore a provider of the full text link of the journal, strengthening a collaboration with the NLM which dates back to the years of its foundation. The LinkOut service is therefore available for Annali starting with issue n 3 vol 39 (2003).

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