Literature in Food Science in the Internet Era

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What are the information needs of food scientists?

The interrelationship of science , technology and development and university , industry and research are thought of as eternal triangles.(Fig.1)

Fig. 1

1. Food scientists need to communicate and interact. This is illustrated by information of eties, holding meetings, correspondence by e-mail. A number of e-mail services are offered by search engines, like Yahoo, Excite, Rediffmail, 123 India, Indiatimes mail etc...
2. Publishing by faculty to advance their careers.
3. To get ones results announced quickly, e.g. posting on internet, newsletters, etc..
4. Access to materials from all countries and all languages.
5. Monographs, reviews, encyclopedias,treatises etc.
6. Tables, handbooks etc., for ready references.
7. Current awareness, including on-going R and D e.g. Safety data, Government regulations.
8. Aids for retrospective search.
9. Directories for consultation, suppliers of in struments, chemicals etc., used during the experiments. Different media are suitable for meeting different needs at different times. A schematic diagram of information flows in 1990s is shown in **figure 2.**

In the 20th century the printed word became an endangered species. However, the idea of archiving brought stability in the print world. Reading newspaper while enjoying a cup of coffee or solving crossword while travelling, browsing through library shelves, are all human habits which cannot be replaced by computer. Similarly , all that a computer can do, e.g. handling huge amount of data, arranging , storing and processing data, is really amazing. It is, therefore, obvious that the various media of information like print, image and computer are complimentary to each other and one has to make best use of each of the media.

The reliance on one or two key sources in food science is unjustified as this area is multidisciplinary and interdisciplinary as revealed by Borgstrom[1]. The required information may be found in unpublished documents, preliminary communications, patent specifications, conference literature, research reports, theses, journal articles, reprints, newsletters, standards, codes of practice, trade catalogs, FDA regulations in India and abroad, and a variety of forms of literature. To extract right information from such a multifaceted subject at the right time, it is necessary to know the possible sources before beginning a search. The various sources for manual search are discussed in detail[2].

With the increasing R and D activities, developments in printing technologies, internet access , animation, CD-ROMs etc..the number of primary journals also increase. However, no library can be self-sufficient. Participation in networks for resource sharing, use of other libraries are necessary and more so in completion of time bound projects. The food scientists therefore have to be familiar with knowledge management, i.e.archiving of experience and create an environment that may include both intranet and internet. Chemical Abstracts service and Document Delivery Services have brought the literature closer to the information seekers. Computerisation, electronic journals, and online services have made access to all current literature in the area of teaching and research possible, reduced the time spent on manual search and regularly altered with recent advances. Besides the much used libraries like, UDCT and BARC, the CFTRI library at Mysore does a yeoman service in information retrieval, processing,collection, storage, document supply in the area of food science and technology.

The knowledge and diligent formulation of search strategies and the familiarity with the

databases and indexing practices will result in precise and comprehensive retrieval. The nature of food information is such that one must know what information is being sought, how the search strategy should be set up, what abstract journals are to be used. **STN International** is an online scientific and technical information service operated by Chemical Abstracts Service (CAS). STN provides a complete collection of in-depth databases (over 200) in science and technology on a range of fields, like Biotechnology, Patents, Pharmacology, Toxicity, Environment, Computers, Chemistry, and Food science.

STN can be used to

1. Locate patents for tracking new technologies
2. Find the latest published research
3. Analyse industry and market news globally
4. Locate chemical suppliers worldwide
5. Study financial performance of companies
6. Gather safety & materials handling information
7. Review medical information
8. Search for substances by name, CAS Registry number or structure

STN databases by cluster : Food Science and Technology

AGRICOLA, BIOSIS, BIOTECHNO, CABA, CAPLUS, FORMAD, FOREGE, FROSTI, FSTA, JICST-E-PLUS, PROMT, MEDICONF, NTIS, SCISEARCH

Patents

CAOLD,CAPLUS,INPADOC,EUROPATFULL, PCTFULL, USPATFULL, WPINDEX

Websites for food scientists

http://www.fao.org Food & Agricultural Organisation
http://www.hike.te.chibauiac.jp/ikeda/ISO/home.html ISO
http://ificinfo.health.org/International Food Information Council
http://www.eastnet.co.uk/ifst/UK Institute of Food Sc.&tech.
http://dfst.csiro.au/fdnet20.html Australian CSIRO library
http://vm.cfsan.fda.gov/list.html US Food & Drug Administration
http://www.ift.org Food technology , Journal of Food Science
http://nachos.engr.ucdavis.edu/rpsingh/index.html Paul Singh's online course for Food Engineering
http://foodnet.fic.ca Foodnet , Canada
http://www.nal.usda.gov/ag98/Agricola
http://www.nature.com(Nature)
http://www.ifis.org Food Science & Technology Abstracts
http://www.foodsci.com Food science & technology resources
http://www.eatright.orgAmerican Dietetics Association
http://www.ifst.organstitute of Food Science & technologists
http://www.crop.cri.nz/crop/infoods/infood.html UN University Food & Nutrition program
http://foodnet.fic.ca/regulat/codex.htmlCodex Alimentarius Home page.

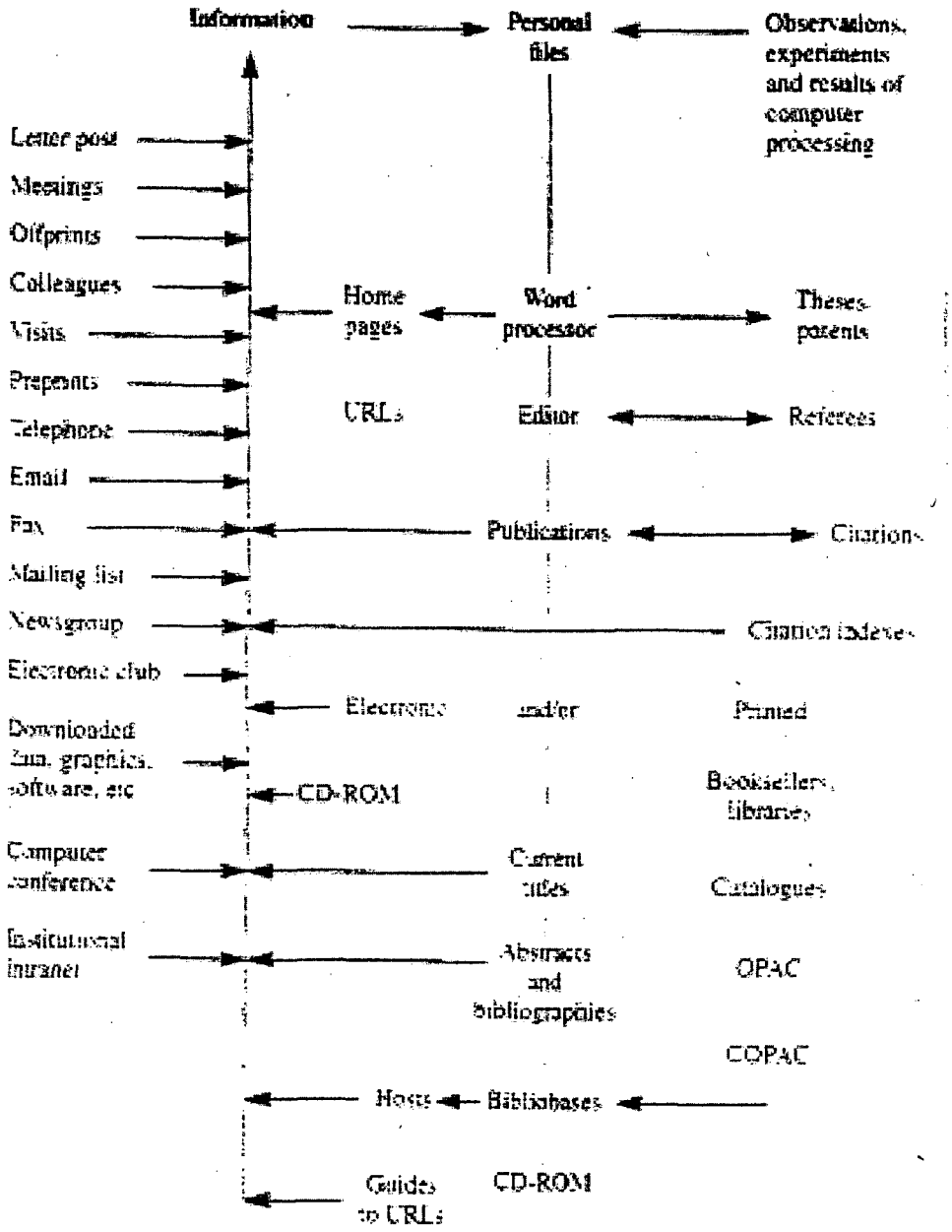
E-mail addresses
Foodsci@lists.acs.ohio-state
Foodlink@listproc.wsc.edu
Ift@lists.acs.ohio-state.edu

URLs of a few universities and E-mail addresses are also cited in the publication[3]. Best internet sites are usually paid sites and, therefore, it is necessary to use internet effectively besides other media of information..

E - Journals (paid sites)

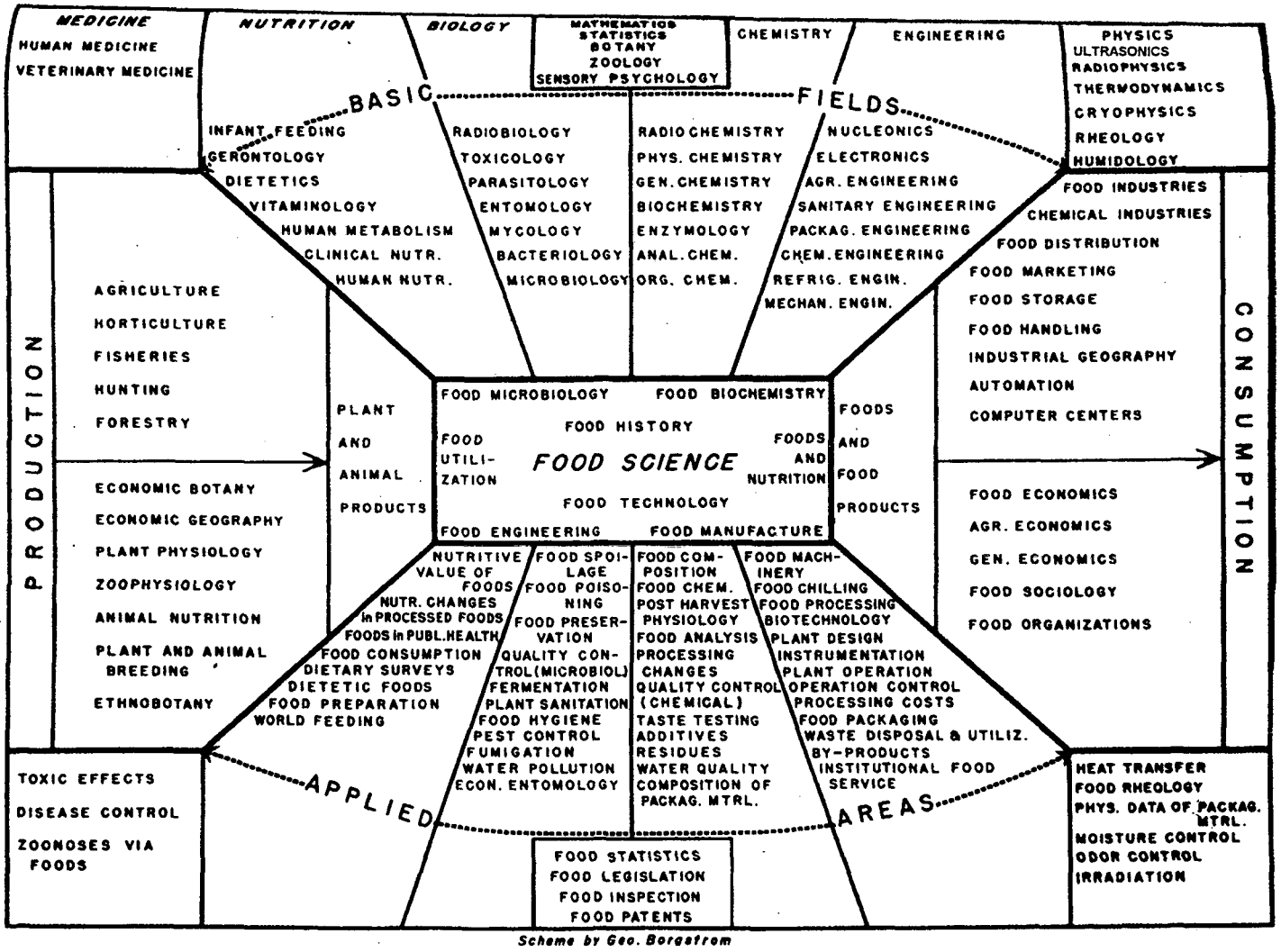
A subscriber to E-journals gets access to not only current issues, but also to the back files. Few publishers provide an annual CD-ROM. Electronic version of current journals appear faster on the net than their printed counterparts many a times as much as 10 weeks ahead. Science direct , a product of Elsevier Science publishers is one of the major players in E-Journals.

The delivery of information through computer satisfies the researcher's need for quick information, while the library can be consulted for less immediate needs. The Interlibrary loan is a third source which is dependable , where researcher can wait for materials. Past patterns and attitudes of accessing information are changing. However, along with advantages there are some challenges. What constitutes an authorized version? How should digital documents be cited - especially when the citation becomes nonexistent? How should this be relied upon? Issues of intellectual property and archiving of electronic journals become more complicated in the digital world and form hot topics of endless discussion.



Notes:
'Publications' include compendia, critical reviews, dictionaries, directories, data sets, and reports internal to organisations, as well as books and journals.
'Bibliobases' is used to mean bibliographic databases.
'Guides to URLs' include any Internet search tool.
'COPAC' is used to mean a collective (union) OPAC.

Figure 2 *Information flows in 1990s*



Scheme by Geo. Borgstrom

THE UNIVERSE OF FOOD SCIENCE

Nearly ten years of effort and research went into the organizing of this view of the solar system of subject matter circling around the "sun" of food science.

References

1. Borgstrom, *Food technology* Oct.1962
2. Role of secondary services in the information val w.r.t.food, additives M.Lib.Sc. Dissertation University of Bombay 1986
3. *Indian Food industry,* V.20 (5) Sept.-Oct. 2001 p.50-55

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