

Internet as a tool for botanist

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The success of any research group depends upon the up-to-the-minute data available with the group generated in the labs located all around the world. A researcher should be able to know the basic strategies for literature which has been undergone rapid transformation after the integration of internet into every lab. Now every scientific person is required to know what, where and how to search the information. The present paper communicates the use of internet for a botanist to retrieve the required data from different sources.

Biology is undergoing accelerating revolutions with the information flushing in from various allied research activities. With determination of genome organization, the dynamics of various plant cells has added a need to club the information and deduce new principles applicable for wide range of cells. Several genomes have been sequenced to a high quality in plants, including *Arabidopsis thaliana* (Arabidopsis genome sequencing, 2000) and rice (Goff *et al.*, 2002, Yu *et al.*, 2002 and Yuan *et al.*, 2005). Draft genome sequences are available for poplar (<http://genome.jgi-psf.org/Poptr1/>) and lotus (<http://www.kazusa.or.jp/lotus/>), and sequencing efforts are in progress for several others including tomato, maize, *Medicago truncatula*, sorghum (Bedel *et al.*, 2005) and close relatives of *Arabidopsis thaliana*. Researchers also generated expressed sequence tags (ESTs) from many plants including lotus, beet, soybean, cotton, wheat, and sorghum (see <http://www.ncbi.nlm.nih.gov/dbEST/>).

Every day enormous data is added to the plant sciences. The transformation of classical botany with subsequent hand on help from biotechnology tools has generated a huge data, within short time. Biotechnology tools without combination with computers it would be laborious task to understand the gene and their sequences. Hence, a newly emerging biology requires some knowledge about computers of which Internet operation skills is prerequisite.

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The world wide web (WEB, WWW or W3) was conceived and developed at CERN, the European laboratory for particle physics, to allow information sharing between international dispersed groups in the high energy community. The concept of information sharing between remote locations and the ramification for rapid data dissemination and communication found immediate application in numerous other areas. As a result the web spread quickly and it is making a profound impact in the field of modern science (Baxevanis and Ouellette, 1998). Hence, now a days, internet is popularly referred as the “information superhighway” as it has become a very pervasive influence in everyday life (Sanjoy, 2001).

Internet is a network of computers located all round the world with an access to exchange of information with lightening speed. The scientific data generated by educational, governmental and business organizations can be obtained by a hand click. Internet basically provides various services such as e-mail, newsgroups (Group of people sharing latest information of their area of interest on day to day basis), FTP (file transfer protocols), Telnet etc., (Sanjoy, 2001). In order to work effectively, the network share a communication protocol, called transmission control protocol – internet protocol better known as TCP- IP. It has shown a pervasive influence in everyone’s life especially biologist with massive expanding body of information. The latest information published in journals or proceedings of particular conferences can be now in reach in the hands of researcher within no time, whereas, the classical approach is equal to searching a small fish in an ocean at the time of heavy storm.

The beauty of internet lies with its capability to join two or more different web pages (Data written in html format that contains texts, images, links etc.) together at a particular site and the whole information can be searched by using search engines (Table 1). A web search engine is an interactive tool to help people locate information available via WWW. Web search engines are actual database that contain references to thousands of resources. Users interact with the database, submitting questions that “ask” the database if it contains resources that match a specific criteria .

There are many search engines which provide an interface between the user and the underline database.