Chapter 9
Searching Bioinformatics Information Strategies for Effective Use of Search Engine

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ABSTRACT

The Internet, which is an information super high way, has practically compressed the world into a cyber colony through various networks and other Internets. The development of the Internet and the emergence of the World Wide Web (WWW) as common vehicle for communication and instantaneous access to search engines and databases. Search Engine is designed to facilitate search for information on the WWW. Search Engines are essentially the tools that help in finding required information on the web quickly in an organized manner. Different search engines do the same job in different ways thus giving different results for the same query. Search Strategies are the new trend on the Web.

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INTRODUCTION

There is a huge amount of general and biological information on the World Wide Web. The exponential growth of biological data over the past decade has created an enormous challenge to make effective use of the accumulated information. Today bioinformatics is driven by the challenge of integrating the large amount of genetic and structural data emanating from biomedical research. Bioinformatics is the science of storing, retrieving and analyzing large amount of biological information (Buehler, 2005). Bioinformatics refers to the task of organizing, analyzing, and predicting increasingly complex data arising from modern molecular and biochemical techniques. Bioinformatics is a computational analysis of biological information such as nucleic acid and protein sequences and protein structure. Cataloging, classifying, labeling and connecting sequence, structural and functional information of genes and proteins of various organisms will facilitate the discovery of new biological trends. Information search and retrieval is one of the most powerful applications of bioinformatics. The importance of search engines, databases and the increasing sophisticated communication network in biological and biomedical research is tremendous. The ability to use the different online accessible software in molecular biology is becoming mandatory for all biomedical scientists. The current quest to sequence all genes, and to make information available in search engines databases such that all biological investigations must start with browsing the data banks, making computer literacy compulsory for all biologists.

Bioinformatics Definition

According to the Oxford Dictionary website, bioinformatics is conceptualizing biology in terms of molecules (in the sense of Physical Chemistry) and applying "informatics techniques" (derived from disciplines such as applied mathematics, computer science and statistics) to understand and organize the information associated with these molecules, on a large scale. In short, bioinformatics is a management information system for molecular biology and has many practical applications.

Objectives of the Study

The main objective of the chapter is to explore bioinformatics information.

The other objectives of the study are:

1. To find out the various bio informatics databases and search engines.
2. To find out the different types of information search and retrieval strategies of bio informatics information.