Docket #: S99-147

Directory Protocol Based Data Storage

Researchers in the Herzenberg lab at Stanford have developed and patented a federated directory service system for managing scientific data. Scientific data is often stored in paper-bound notebooks and unstructured computer files which can be difficult to maintain over time. Systems exist to help scientists deal with the complex data collected during experiments but these systems lack the tools for automating the collection and storage of data annotated with sufficient information to enable analysis. In an effort to create a better system, the inventors have developed a federated two-layer system in which a directory service is used to locate information and refer to XML documents that contain additional detail and/or data stored elsewhere. This tool provides an internet-accessible archive for storing, analyzing, retrieving and sharing experimental data.

Applications

- Data storage and retrieval for:
    - Scientific applications:
        - Biological data- including FACS (fluorescence activated cell sorting) and microarray data
        - Medical data- including clinical trial data
        - Managing lab supplies
    - Broader applications that deal with many discrete named elements that are difficult to serve with centralized database approaches

Advantages

- Ease of search

- Flexible database structure- allows cataloguing and retrieving data with associated text and numerical annotation information
- Allows unique identification of materials and data
- Facilitates electronic interchange of scientific data and publication of scientific findings

Patents

- Published Application: WO2001090951
- Published Application: 20050273475

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