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Teradata University Network

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TERADATA UNIVERSITY NETWORK

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Abstract

Business intelligence became a regular part of many undergraduate and graduate curricula in recent years. This field comprises a broad range of business-oriented topics (e.g. customer relationship management, business performance management) as well as technical topics (e.g. data warehousing, data mining, large databases). Due to its significance for business success and the high amount of software and methodology innovations, faculty is challenged with staying abreast of this evolving field and teaching it in relevant ways. In 2001, Teradata, a division of NCR, has teamed with a group of academics to create the Teradata University Network (TUN, www.TeradataUniversityNetwork.com), a free portal designed to help faculty teach and learn about business intelligence, data warehousing, and data management topics. In this tutorial, the various resources of TUN are demonstrated and examples for TUN usage in business intelligence classes are given.

1 TUN CONTENT

The most important feature of TUN is that data warehousing software, business intelligence software and other tools are made accessible through an ASP model. Colleges and universities do not have to obtain, install, and maintain any software. Instead all included tools can be used free of charge, using just browsers and internet access. Available software includes Teradata SQL Assistant, MicroStrategy Web Customer Analysis, Financial Reporting Analysis and Sales Analysis modules as well as a dimensional modelling tool. Not only is the software made available, but the Teradata database is already loaded with various data sets, including those from popular textbooks such as (Hoffer 2002).

In addition to software access and links to related web sites, the faculty portal provides commercial content such as

- Software demos
- Software tutorials
- Web-based courses (1 to 2 hours in length)
- Vendor white papers

Furthermore, TUN provides academic content such as

- Course syllabi (for data warehousing, data mining, decision support / business intelligence, and database courses)
- Presentations (with speaker's notes)
- Cases, projects and assignments (with teaching notes)
- Professional studies
- Academic texts (book chapters and articles) on data warehousing and business intelligence

A separate site for students, Teradata Student Network (TSN, www.TeradataStudentNetwork.com) contains a subset of the above materials, including

- Access to software
- Cases, projects and assignments (without teaching notes)
- Book chapters and articles
- Vendor white papers
- Links to related web sites

For details on the history, goals and outlook of TUN and TSN, see (Watson and Hoffer 2003).

2 TUN ACCESS AND CONTENT SELECTION

To gain access to TUN, faculty must first register at the TUN web site. In addition to providing information such as name, university, and desired password, applicants must provide the URL of a web page that shows that they are a teaching faculty member. TUN contains material that is only for faculty members, such as the solutions to cases, projects, and assignments. After their application has been authenticated (usually within 24 hours), faculty can access TUN using their email address as their ID and the password that they specified. For Teradata's SQL Assistant software, a separate registration is necessary that is coordinated with the TUN authorization.

Registered TUN users can make TSN available to their students. TSN is protected with a password that is changed January 1 and July 1. Faculty can learn the password on TUN or receive it through regular communications as a TUN member. For Teradata's SQL Assistant software, course environments can be protected by a separate password.

What differentiates Teradata's initiative from other software vendor offerings for education is that leading academics are primarily responsible for the TUN vision, the development of TUN and the evolution of TUN. The Senior and Associate Directors work with Teradata and other Advisory Board

members as a management team to ensure that TUN meets the needs of the IS academic community. Project teams, led by Board members, work closely with Teradata staff to make decisions, test prototypes, obtain beta testers, make design decisions, and timeline activities. All TUN / TSN content is reviewed by Board members. Faculty is invited to submit material to the Senior Director of the Board. There is an easy-to-use content submission form that collects metadata about the submitted content and allows the submitting faculty member to attach the content or provide an URL where the content can be accessed. If appropriate, the reviewed content is then released for TUN / TSN.

3 TUN VALUE FOR TEACHING FACULTY

By using TUN resources, different teaching formats for data warehousing, business intelligence and database classes are supported. Options include software application demos using data sets from popular textbooks, hands-on experiential learning using CBTs, or scenario-based assignments that comprise the application of a state-of-the-art software tool. The teaching preparation is supported by syllabi, teaching notes and assignments submitted by many colleagues.

As a starting point for planning a new or adapting an existent course, various syllabi may be used that are available in TUN. Another valuable help in preparing a course are a large number of available cases, projects and assignments. All of them have teaching notes. Furthermore, several PowerPoint presentations can be found that may be customized and used for teaching.

For using the SQL Assistant software, course environments (i.e. database structures and respective data sets) can be created and maintained interactively. Since the course environments can be password protected, it is possible to differentiate between a database for classroom demos, a database for assignments and a database for exams.

For learning about the provided software products, tutorial applications are provided. In the case of the MicroStrategy Web product, the tutorial application provides a project and application set for an Electronics, Books, Movies and Music store, thereby enabling novice users to analyze Employees, Inventory, Finance, Product Sales and Suppliers.

Another product resource is MicroStrategy's eTrainer, an on-line tutorial for using MicroStrategy Web and testing the acquired knowledge. It combines expert instruction with real product simulation, a user-friendly interface, and interactivity.

At times, instructors may need help, or they may need to answer student questions about the available resources. In these situations, instructors can contact experienced Teradata Customer Service Representatives. TUN includes a link to 24-hour incident reporting, and specific details on the process and how to report an incident are available.

Some excellent suggestions for teaching formats for business intelligence / decision support classes based on TUN / TSN resources are proposed in (Wixom 2004). In addition to performing tutorial applications as a demo in class, eTrainer can be used for hands-on experiential learning, or cases can be used in conjunction with a specific MicroStrategy Web Analysis Module to create assignments that are presented by students. While these formats are more appropriate for business intelligence / decision support courses, database courses will use the SQL Assistant product and respective data sets in order to interactively learn to develop SQL queries.

4 CONCLUSION

Teradata has made a significant commitment and gift to information systems education. Through a single portal, faculty can access important resources needed to teach courses in data warehousing, business intelligence and database. Colleges and universities have access to state-of-the-art software without the difficulties associated with installing and maintaining it locally. Comprehensive data sets

are maintained that give students the opportunity to do realistic, computational complex queries and analyses.

As of June 2003, users from 158 universities in 28 countries around the world registered with TUN, with membership growing daily. As more and more faculty members contribute content (e.g., course syllabi, cases) to TUN, its value to everyone increases.

In the long-run, the success of TUN depends on information systems faculty members. They must find it to be an important resource for their teaching and learning. They must also be willing to share the resources they develop, whether it is a course syllabus, article, case, project, etc.

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