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THE eXTENSIBLE MARKUP LANGUAGE (XML) AND eBUSINESS: SIGNIFICANCE AND IMPACT

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Abstract

The eXtensible Markup Language (XML) has been widely hailed as the next quantum-leap development in the world of e-business. XML describes the syntax for the development of user-defined markup tags to provide data with contextual and specific meaning for any given industry, application, or transaction. It is difficult to separate hype from facts without a basic understanding of the technologies involved. This session will cover the basic components of an XML transaction, their combined capabilities, and the reality of XML's importance to eBusiness. Detailed, hands-on tutorial materials for creating a basic XML application will be made available.

Keywords: XML, electronic commerce, emerging technologies

The eXtensible Markup Language (XML)

The eXtensible Markup Language (XML) is one of the most promising developments in the relatively brief commercial history of the Internet. XML is a set of World Wide Web Consortium (<http://www.W3C.org>) syntax recommendations that facilitate the seamless, cross-platform exchange of data via the development of formal industry-wide applications (Lim and Wen 2002, Glushko et al. 1999).

XML directly impacts one of the W3C's long-term goals for the WWW: the creation of the semantic web. The semantic web is a collection of self-described data resources that make end-to-end, direct machine data processing between buyers and suppliers possible. Unlike the HyperText Markup Language (HTML), XML goes beyond merely defining data format on a browser window. XML utilizes user-defined tag sets to provide transaction-specific meaning to data. This capability provides data with uniform meaning for buyers and sellers in any specific transaction for which a formal XML application is created.

This proposal is for a 45-minute session during which participants will learn what XML is and how it differs from HTML, currently the most popular data presentation language on the WWW. This introduction will be a high-level overview of XML files, well-formedness and validity rules, Document Type Definition (DTD) files, Schemas, and the eXtensible Style Sheet Language (XSL). This overview will give participants basic familiarity with the main concepts of the technology and will form the basis for understanding XML's true potential for electronic business. The 45-minute presentation will also include examples based on real-life XML applications, an introduction to current industry standardization efforts, and a discussion of corporate adoption issues.

Materials used during the presentation have successfully been used in classroom environments for graduate management IS courses, and can be adapted easily for use in undergraduate curricula. Additionally, a step-by-step tutorial containing over 45 pages of instructions, illustrations, and appendices will be made available to all participants after the session. The tutorial enables a student to create a simple XML transaction set that includes XML, DTD, and XSL files. This detailed exercise is based on a Visa/MasterCard hotel, rental car, and airfare invoicing application, and was developed with their explicit permission for use in the classroom. Portions of this tutorial are currently in use in the Engineering and Sciences Department of the Rensselaer Polytechnic Institute, Hartford Campus.

References

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