

Assignment 6 – INLS 623

You will be placed on one of four teams (*Wiley Coyote*, *Addled Wesley*, *Prattle Hall*, *O'Really*). Each company has the same problem, but is taking a different tack. Your team's job is to research and write up your analysis of how your company would handle the following situation, given your companies specific directions.

General Problem:

You work for a publishing company. You are responsible for your company's traditional database for purchasing, ordering, administration etc. The CEO has recognized your talents, and as part of a reorganization, you have also been put in charge of the digital content division. This division has been given the following assignment, for which you are now responsible, in addition to the company's traditional database system:

- Providing the companies journal articles directly to NLM PubMed Central in NLM's standardized XML format.
- Making all your books, journal articles, and magazine content available to Google in XML format (they will provide you three separate schemas, one for each of book, journal article, and magazine article content).

Describe in detail how you will handle these requirements in addition to how you handle your already existing responsibilities (which include data management for purchasing, ordering, and administrative operations). Research NLM and Google to find out what you can about how they use XML schemas for this. Base your answer on what you find out (or make reasonable assumptions if you can't find information).

Each company has a specific philosophy. Explain the pros and cons of your philosophy, and then explain the process your company will use to meet the above goals. Give specifics of the solution, and include discussion of tools you may utilize. Examples would be great. Also, talk about how this new work (providing digital content in XML) will coordinate with existing database efforts within the company that you are also responsible for. I.e. will they utilize the same infrastructure or be separate and why.

Wiley Coyote

Our chairman believes that XML is the end all and be all. We are getting rid of all of our standard relational databases, and we will be only using XML products to handle all of our operations. We need to decide exactly what this means in terms of what products we'll be using, as well as how we'll accomplish our goals.

Addled Wesley

We believe that supporting XML is critical to our operations, and want to integrate it more completely into our operation. We will continue to use relational database management systems, but new systems we purchase will be Native XML database systems, or will include direct support for native XML databases. Thus, our company will support both RDBMS and Native XML systems. We also have to make a decision

between using SQL Server or Oracle, depending on which we think will best support our needs.

Prattle Hall

We believe that relational databases are here to stay, but that XML is important for exchanging documents with other customers and vendors, and even in-house. We use only relational databases (Oracle), but emphasize XML enabled relational databases. We will need to develop mappings from our relational schema to XML and as part of this need to decide what tools to use to help with doing these mappings.

O'Really

Our board believes strongly in open source. As a result we use only open source, freely available products. We run a standard LAMP (Linux, Apache, MySQL, PHP) shop. While we're pretty experienced with open source, we will need to figure out how to support the exchange of XML documents, especially given MySQL's capabilities and limitations.