Theme IV: Business Related Issues Trading of Intangible Goods

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Abstract

During the last few years, the amount of information and services available and used in electronic form has increased almost exponentially. These types of digital information and services constitute a new general class of goods, which we call Intangible Goods. Intangible goods having distinct characteristics from their counterpart tangible ones, that require specialized approaches when accessed and traded over the Internet. Of major importance in the commercialization and trading of intangible goods and services is security. What is needed, is not only the secure transmission of the data but also models and methods for ensuring the protection of intellectual property, user authentication etc. Three papers describing different issues in these areas are presented in the first part of the minitrack. The first paper, "Models and Languages for Digital Rights" by Gunter and Wright, presents an approach to describing digital rights through abstract models and policy description languages. The model allows the owner of an intangible good to describe with precision the terms and conditions under which the good is accessed by the [...]
Trading of Intangible Goods

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The second paper, “Development of Personal Authentication System Using a Fingerprint with Digital Signature Technologies”, by Isobe, Seto and Kataoka, presents a prototype biometrics-based personal authentication system in which smart card and fingerprint verification technologies are combined. By combining smart card and fingerprint verification they provide a simple and robust method for authentication of the user.

In the third paper, “Steganographic Watermarking for Documents”, by Bogarin, Baran and Gomez, a prototype system that seals text documents is presented. The system allows the insertion of digital marks or patterns that are not easily perceived when viewed under ordinary word processors or text editors. This way information like document authenticity as well as right access, can be undetectably incorporated in the structure and content of the document itself.

The second part of the presentations deals with systems and models for (electronic) commerce. The paper by Jazayeri and Podnar, “A Business and Domain Model for Information Commerce”, presents a business model for the information marketplace using the UML. It defines goals and responsibilities of information customers, information providers and intermediaries providing a model for the emerging information marketplace, so that potential new technical and business opportunities can be identified.

The next paper, “WebXice: an infrastructure for information commerce on the WWW” by Wombacher, Kostaki and Aberer, focuses on the question, how e-commerce participants with minimal infrastructure (i.e. a standard Web browser), can be technologically enabled to participate in the information commerce, without sacrificing the functionality and security required in an information commerce scenario. A prototype implementation, webXice, demonstrates the feasibility of the task.

The paper “Implementing B2B Contracts Using BizTalk”, by Bond, Goodchild, Herring and Milosevic, describes a B2B enterprise model that supports the wide range of economic transactions associated with intangible goods and services. The model is supported by a prototype framework demonstrating the relevant implementation issues.

In the last part of the presentations we have two papers presenting issues for e-government related services. The paper by Fortier and Smart, “Web based e-government data distribution” discusses protocols, services and policies being developed in the context of the US government e-government directive in order to allow the general public to access e-government information on watershed health, water quality assessment and fisheries assessment. It describes three web based data distribution models with varying levels of complexity and user interaction flexibility.

The last paper, “From Physical to Digital Delivery: Definition, Scope and Tariff Revenue Implications of Electronic Goods Trading”, by Teltscher discusses issues related to trading of intangible goods in the global market. The differences in tariffs and trading of goods based on United Nations’ data between developing and developed countries serve as the basis for the analysis.