

LATECE – Research Laboratory on eCommerce Technologies

UQÀM
Université du Québec à Montréal

Plan

- *Issues*
- LATECE
- Current projects
- The future

eCommerce: conducting business transactions electronically

- B2B eCommerce raises a myriad of issues:
 - Being able to locate potential business partners
 - Making sure that partner business processes are compatible
 - Making sure that the computational infrastructure is adequate (flexible, efficient, and secure)
 - Making sure that the corresponding information systems are inter-operable

eCommerce: issues

- Existing solutions focus on the plumbing through a combination of:
 - products (WebSphere, Commerce Server, etc.)
 - Technologies/standards (e.g. web services, ebXML)but not on the semantics
- A multidisciplinary approach is required for:
 - New problems
 - New twists on old problems

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Who we are (www.latece.uqam.ca)

- LATECE: a school-level (*équipe facultaire*) research lab with 14 professors and over 40 graduate students
- LATECE is multi-disciplinary:
 - AI: knowledge representation, knowledge management
 - SE: distributed application development; component-based development plication integration
 - Telecom: network infrastructures for eCommerce
 - MIS: business process modeling
- Our researchers come from several universities:
 - UQAM, Laval, Ude Montréal, UQO, ÉTS

Research areas

- Business Process Modeling (BPM)
 - Business process modeling languages
 - Business process matching procedures
- Component-based development (CBD)
 - Reuse of generic business components
 - Transformational development
 - Component-based application integration
- eCommerce infrastructure (eCI)
 - Electronic marketplaces
 - Distributed environments
- eCommerce applications (eCA)

Mandate

LATECE has three complimentary mandates

- Fundamental research, in one of the founding disciplines, or the frontier of several disciplines, typically funded by NSERC
- Applied research, typically funded through joint industry collaborations
- Technology transfer to small and medium enterprises in the Montreal metropolitan area

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Current projects

- Business Process Modeling (R. Godin, E. Lefebvre, G. Levesque, H. Mili, G. Mineau, G. Tremblay, P. Valtchev):
 - Developing a high-level executable business process modeling language
 - Developing business process matching procedures that:
 - Measure a degree of fit
 - Generate a bridge process whenever possible/reasonable to do so

Current projects (cont'd)

- Component-based development (E. Lefebvre, H. Lounis, H. Mili, G. Tremblay, A. Salah)
 - Development and reuse of generic business process components
 - Flexible deployment of generic business components using separation of concerns techniques
 - Generating application integration glue from a specification of a bridge process using a transformation approach

Current projects (cont'd)

- eCommerce infrastructure:
 - Electronic marketplaces (R. Godin, H. Mili, G. Mineau, R. Missaoui, A. Obaid, P. Valtchev)
 - Developing business process repositories/registries
 - Content-based search and retrieval from business process registries
 - Distributed systems (H. Mili, A. Obaid)
 - Virtual private network protocols
 - Ad-hoc networks and mobile e-Commerce
 - Object distribution techniques

Current projects (cont'd)

- eCommerce applications
 - Development of an eCommerce infrastructure using ebXML, RosettaNet and Web Services (L. Martin, H. Mili, A. Obaid)
 - Applications of eCommerce to the tourism industry (F. Bédard, H. Mili)

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The future

- Develop in-house expertise in a number of state of the art technologies
- Develop industry partnerships
- Hiring, train, and retain more highly qualified personnel (doctoral students and post-doctoral researchers)