Business Process Modeling for developing Process Oriented IT Systems

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Outline

• Background and motivations
• Short summary on process modelling
• Main concepts for analysing and modelling BPs
  • Intentional view of the enterprise
  • Organizational and operational view of the enterprise
  • IT support view of the enterprise
• Conclusion

Pressures for change

○ Companies are facing pressures to improve their competitiveness
  ○ to better satisfy customer requirements, improve internal processes, modify the range of products and services they offer, ...

○ Organizations experience the effects of the integration and evolution of ICT.
  ○ e-business, deregulation, mergers and acquisitions, business process automation, globalization.

○ ICT is positioned as a strategic resource

○ The key word is integration: integration of data (DBMS, distributed DBMS), of applications (WFMS, EAI) and finally of business processes (BPM).

Relationships between organization and its IT systems

○ At 1977, J. L. Lemoigne proposed the “Operation-Information-Decision” (OID) model that set the articulation of the organization around three systems: OS, IS and DS.

○ The major contribution of the OID model was to provide the symmetry on the coupling of OS and IS on one side and DS and IS on the other side.
Today, an IS does not exist only as an image of the real world but sometimes it could be the unique reality.

It seems more appropriate to consider the organization as a whole system with its multiple facets: its strategy, its structure and its information systems.

The study of the literature shows also that existing modeling formalisms can be classified into three categories: activity, product and decision oriented.

Business processes can be roughly classified into two categories:
- Well structured and repetitive processes
- Ill structured processes

A conceptual modeling framework offering:
- the rigor necessary for modeling well-defined business processes,
- the flexibility and adaptability required for ill-defined or for ad-hoc business processes,
- the set of concepts useful to represent the three views of the enterprise:
  - Intentional view
  - Organizational and operational view
  - IT support view
Intentional view of the enterprise

The « Why » and « What » decision of C1

Renegotiation strategy

Process

Chunk

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Organizational & operational view of the enterprise: The « who, when, where »

The business map: Manage loans

Handle the loan request

Direct

Individual

Precedence

0,n

Group

C1

C2

C3

C4

C5

C6

C7

C8

C9

Intentional view of the enterprise

The business map: Manage loans

Map

Component

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IT support view of the enterprise

The « who, when, where & how »

The business map: Manage loans

Map

Component

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IT support view of the enterprise: The « how »

Component

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Intentional (decisional) view of the enterprise: The « Why » and « What »

Organizational & operational view of the enterprise: The « who, when, where »

The business map: Manage loans

Map

Component

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IT support view of the enterprise: The « how »

Component

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The intention driven modeling provides basis for understanding and supporting the enterprise objectives, the alternative way-of-workings.

The intentional view of the enterprise represents the enterprise from the point of view of its objectives disregarding the considerations of the operational level.

This view should be completed with the realization conditions of these objectives, i.e. taking in consideration the organizational and operational choices in order to develop the ISs and IT architectures needed by this enterprise.