Metrics of Collaborative Business Systems in the Knowledge-Based Economy

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Business Informatics Systems (1)

• are extremely dynamics;
• businessmen have high expectation of these informatics systems;
• the structural changes in the economy influence the functions of business-oriented informatics systems;
• every businessman need some information for taking the decision.
Business Informatics Systems

- Quality management
- Management of finished products
- Planning of production processes
- Storage processes
- Know-how elements
- Informatic entity
Quality Characteristics of Collaborative Business Systems

- Reliability
- Portability
- Continuity
- Functionality
- Customization
- Interoperability
Functional blocks of business informatics systems

• acquisition and analysis of behavior data;
• establishing the profile of actors;
• determines the corrections so the system to work properly.
Context for Semantically Approach

Elements that should be automatically saved in the database for documents involved in the business:

• moments of inserting documents;
• identification elements of operators;
• time between consecutive operations;
• the establishment of complete cycles;
• moments about the updates.
Metrics of Semantic-Oriented Business Collaborative Systems (1)

\[ NSNA_k = \frac{NSINC_k}{NSINR_k} \quad FROA_k = \frac{NOP_{ik}}{NTOP_k} \]

\[ NMAXop = \frac{\min\{Nop_i\}_{i=1}^{npl}}{\max\{Nop_i\}_{i=1}^{npl}} \]
Metrics of Semantic-Oriented Business Collaborative Systems (2)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>$NSNA_k$</td>
<td>0.5</td>
</tr>
<tr>
<td>$FROA_k$</td>
<td>0.2</td>
</tr>
<tr>
<td>$NMAX_{op}$</td>
<td>0.3</td>
</tr>
</tbody>
</table>

$$AI_k = NSNA_k * p_{NSNA_k} + FROA_k * p_{FROA_k} + NMAX_{op} * p_{NMAX_{op}}$$
Conclusions

The business informatics systems are gaining the most varied forms and it is important to design metrics of such business informatics systems because:

• the number of people who access the business informatics system is very high;
• the diversity of users is also very high;
• there is a great variety of access types to organizational.
Thank you

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