Agile Business Process Management with Sense and Respond

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The Agile Enterprise

- Strategies successful in the 80’s and 90’s not useful any longer
- From traditional over dynamic/virtual enterprises leading to general structure of agile enterprises
- What does “agility” mean on company level?
  - Capability of a system to react to unforseen developments/events
  - Handle unanticipated change in environment
- Haeckl et.al. Suggest move from “Make-and-Sell” towards “Sense-and-Respond” enterprise strategy
BPM with Sense and Respond

- Traditional Business Process Management
  - Assumes a high level of predictability
  - Such a business articulates its mission and policies which will rarely be modified
  - Modification of strategy is disruptive
  - Disruption is Enemy of efficiency
- This strategy is not sustainable any longer, at least not in high-tech enterprises
- Software industry was/is in similar crisis
- Adaptiveness must take precedence over short-time efficiency considerations and plan driven operations
- Traditional BPM has weaknesses in reacting agile to changing conditions
SARI – Sense & Respond Loops

1. SENSE
   Receive and Unify Events from Source Systems

2. INTERPRET
   Transform Events into Business Information

3. ANALYZE
   Discover Situations or Exceptions

4. DECIDE
   Make Decisions

5. RESPOND
   Put Response into Action
Event-based Infrastructure for Process Management

- SARI continuously receives, processes and augments events from various sources
- Transformation of these events in near-real-time (opposed to analytical instruments like data warehouses) into
  - Performance indicators
  - Intelligent business actions
- Discovery and Analysis of business situations and creation of responses such as
  - Early warnings
  - Preventing damage from systems
  - Showing business opportunities
  - Adaption of business systems with minimal latency
- Building Sense-and-Response loops
Modeling Approach

- Focus on “Steps 2-4”: Interpret, Analyse, Decide
- Provide User-friendly Interaction with S&R System
- Agile Approach
  - Empower Individuals by emphasizing flexibility and responsiveness over efficiency and predictability
  - Responding quickly and intelligently to events in the business environment (also in the sense, that rules can be changed quickly, not only that processing is fast)
  - Give highest priority to S&R
- Hence think “Bottom-Up” rather than “Top-Down”
“Big Picture”
Continuous Learning from the Business Environment

Operational efficiency and intelligence

Time

Effects of a cycle to the business environment

Each cycle learns from the effects of previous cycles
Summary

- Real-time business information: minimal latency
- Optimized business processes
- Automatic discovery of situations and exceptions
- Generating more accurate forecasts in near-realtime using “live” and historic data
- Integrating internal and external data sources
- Less integration effort (compared to traditional data-warehouse solutions)
- Not only “backend infrastructure”: Focus on **tool support** for various target groups and problems including
  - Tools to graphical model event processing steps in SARI
  - Tool to graphical model hierarchical Rules
  - Event-Mining Tools (“Event Cloud”)
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