



# From Patterns to Languages

# Business Processes Modeling

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- ▶ Include modeling of activities and their casual and temporal relationships as well as specific business rules that process executions have to couple with.
- ▶ Deals with the activity of representing processes of an enterprise, so that the current process may be analyzed and improved
- ▶ This task takes place with the help of graphic notations more or less structured
- ▶ The used notation should be as comprehensible as possible for all involved parts



# Business Processes Modeling Techniques

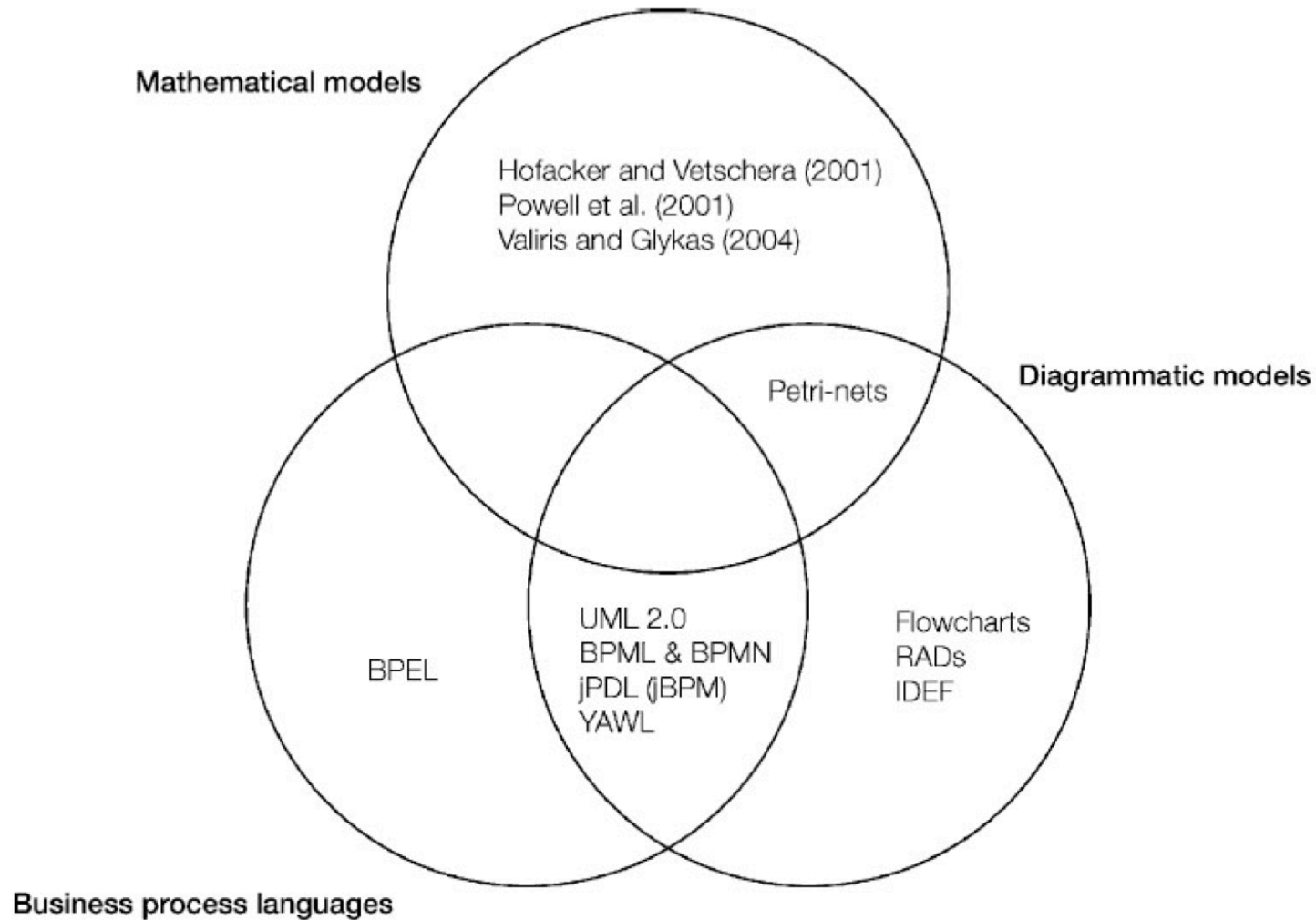
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- ▶ **Graphical models** - involves business process models that sketch a business process using a visual diagram
    - ▶ Integrated DEFinition Method 3 (IDEF3)
    - ▶ Role Activity Diagram (RAD)
    - ▶ Resource-Event-Agent (REA)
    - ▶ Event driven process chains (EPC)
    - ▶ Unified Modeling Language 2.0 (UML) – Activity Diagram (AD)
    - ▶ Business Process Modeling Notation (BPMN)
  - ▶ **Mathematical models** - corresponds to models in which all the elements have a mathematical or a formal underpinning
    - ▶ Petri Nets
    - ▶ YAWL
    - ▶ Process Algebra
    - ▶ Automata
  - ▶ **Script base model** - contains software-based languages that support business process modeling and most of the times process execution
    - ▶ Business Process Execution Language (BPEL)
    - ▶ RosettaNet
    - ▶ ebXML
    - ▶ XPDL
    - ▶ BP4PEOPLE
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# Classification

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# Languages

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- ▶ Business Process Modeling Notation
- ▶ Event Driven Process Chain
- ▶ Petri Nets
- ▶ Workflow Nets
- ▶ YAWL