ALIGNING BPM & BA PERSPECTIVES AT THE PROCESS MODEL LEVEL OR HOW TO UPSET JUST ABOUT EVERYONE

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INNOVATION SUMMIT

Lloyd Dugan, Business Process Management, Inc.
Overview: Feedback and Origins of the Expressed Disputes

Role of Process and Activity in Business Modeling

Definitional Granularities: Business Process vs. Value Stream Or Capability

Potential Path Forward Or How To Build Some Bridges
OVERVIEW:
FEEDBACK AND ORIGINS OF THE EXPRESSED DISPUTES
One of the key issues facing practitioners that are attempting to establish a Business Architecture (BA) practice is how to reconcile some of its concepts with those of other related analytic practices. This issue is perhaps most frequently encountered when organizations attempt to reconcile Business Architecture with existing practices in their Business Process Management (BPM) areas.

The BPM-BA Alignment Group is striving to provide a foundation for organizations to use to begin building linkages between these two analytic areas by defining and illuminating the differences and touch points between these two related disciplines and associated practice areas. This foundation will recognize that many BPM practitioners, particularly with respect to process modeling, are already doing what is described here.

WHITE PAPER PRODUCED BY GUILD & REVIEWED BY BPM GURUS
“Business Architecture and BPM: Differentiation and Reconciliation”

http://www.businessarchitectureguild.org/resource/resmgr/BAtoBPMAlignmentPositionPape.pdf
Other sources should have been referenced, in addition to the many that were cited

- Examples: BP Manifesto from BPTrends, CBOK from ABPMP

Scope of paper was overly ambitious given its topical coverage

- Probably should have been split into 2 or 3 smaller papers

Despite trying to avoid doing so, was seen as defining what a process is

- Upset other communities with long-standing definitions that have worked for them

Formalism/Standards vs. Methodology/Convention divide strong predictor of paper’s acceptance

- Defined degree to which system thinking approach embraced

Semantic disputes over meaning of terms make consensus on reconciliation difficult to achieve

- And worse, can become entangled in personalities and how sides see each other

Consensus must build upon areas of agreement and tolerate differences in practice

- Humility before the twin disciplines of BA and BPM is well advised of all who seek reconciliation
**Business Model**: A Business Model describes the rationale of how an organization creates, delivers, and captures value.

Source: Alexander Osterwalder and Yves Pigneur, *Business Model Generation*, Self-Published, 2010, Page 14; incorporated into Section 3.3 of the BIZBOK v3.5

BA concepts of Value Stream and Capability should emerge from this context.

<General agreement on this assertion, but not on the meanings of the two terms.>

**Operating Model**: An Operating Model is an abstract representation of how an organization operates across process, organization and technology domains in order to accomplish its function.


BA (maybe) and BPM (yes) concepts of Business Process should emerge from this context.

<General agreement on this assertion, but not on what constitutes a business process.>
DEFINITIONS OF A BUSINESS PROCESS

A Value-Output One: “Process is a technical term with a precise definition: an organized group of related activities that together create a result of value to the customer.” – From Hammer & Champy, Reengineering the Corporation: A Manifesto for Business Revolution, 1993

My Speculation: Origin of perception of a business process as principally a value-generation construct, which over time evolved to include contiguous high-level sets of activities as end-to-end (E2E) processes as decomposition of value streams and use of such in Lean Six Sigma (LSS) mode

A Functional One: “In definitional terms, a process is simply a structured, measured set of activities designed to produce a specific output for a particular customer or market.” – From Thomas H. Davenport, Process Innovation: Reengineering Work Through Information Technology, 1993

My Speculation: Origin of perception of a business process as principally a functional construct that transforms inputs into outputs, which over time evolved to include strictly decomposable E2E processes (recursive subprocess elaboration) and rise of process classification frameworks (PCFs)

An Operational One: “A set of one or more linked procedures or activities, which collectively realize a business objective or policy goal, normally within the context of an organizational structure defining functional roles and relationships.” – From the Workflow Management Coalition (www.wfmc.org) and cited by “In OMG’s OCEB Certification Program, What Is the Definition of a Business Process? “about the OMG Certified Expert in BPMN (OCEB) Program on the Object Management Group (OMG) website (http://www.omg.org/oceb/defbusinessprocess.htm)

My Speculation: Origin of perception of a business process as principally an operational view of activities and events largely commensurate with advent of Business Process Model & Notation (BPMN), and strikes some communities as too execution-like or implementation-oriented (especially since BPMN 2.0 came out)
Common Characteristics that Define Process Boundaries

• **Span of Control** – A process will have a span of control that defines the controlling context that governs or enforces its flow, its application of business logic, the assignment of performers, etc.

• **Decomposition** – Decomposition of a process is essentially a decomposition of a span of control, where a higher-level expression of execution passes to/receives from a lower-level one.

• **Trigger and End States** – A process when instantiated has a specific set of circumstances that constitutes a definitive beginning, and another set that constitutes a definitive end or ends.

• **Exchange Interfaces** – A process will have interfaces through which exchanges occurs between the span of control of a specific process and that of other processes.

Other characteristics could be considered, but these provide a sound basis for evaluating and differentiating the degree of appropriateness for designating an observed concept as a Business Process and using a Process Modeling Language to describe it in a Process Model.

**This proposed framework worked for most reviewers but not for some in the blogosphere.**

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**Modeler’s Credo:**
“All models are wrong, though some may be useful.”
– George Box, famous statistician

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ROLE OF PROCESS AND ACTIVITY IN BUSINESS MODELING
PORTER VIEW
OF PROCESS & ACTIVITY

Supporting Business Process and Core Business Processes in Value Generation *

BALANCE SCORE CARD VIEW
OF PROCESS & ACTIVITY

Business Processes as One Perspective for Understanding Value Generation *


BUSINESS ARCHITECTURE GUILD

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Osterwalder Business Model Generation Canvas for Characterizing Value Generation

DEFINITIONAL GRANULARITIES: BUSINESS PROCESS VS. VALUE STREAM OR CAPABILITY
A BUSINESS PROCESS MODEL DONE IN BPMN

**Process Description:** Once the Conduct Mail Campaign process is started, the Prepare Customer Lists task pulls customer lists from the applicable databases to provide addressees for the mailing campaign. Based on this information, the Produce Customer Items task assembles the requisite items for the customers targeted in the mailing campaign. For each identified customer, the Mail Customer Items task mails the items to the customer, the Record Customer Response task records any response received from the customer, and the Perform Customer Follow-up task performs interactive follow-up with the customer. These three tasks occur in parallel collectively as part of the customer mailing, which has a time limit on how long the company will hold open any follow-up.
DEFINITIONAL GRANULARITIES – VALUE STREAM VS. BUSINESS PROCESSES

<table>
<thead>
<tr>
<th>Conduct Mailing Campaign Process and Activities</th>
<th>Prospect Customer Value Stream and Value Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Prepare mailing lists of prospective customers</td>
<td></td>
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<tr>
<td>• Produce items to mail to prospective customers</td>
<td></td>
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<tr>
<td>• Mail items to prospective customers</td>
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<tr>
<td>• Record received customer responses</td>
<td></td>
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<tr>
<td>• Perform response follow-up to customers</td>
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<td></td>
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<tr>
<td>Mine Customer Purchases Process and Activities</td>
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<tr>
<td>• Perform periodic queries of recent purchases</td>
<td></td>
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<tr>
<td>• Determine potential new purchases by customers</td>
<td></td>
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<tr>
<td>• Update customer purchase profiles</td>
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<td></td>
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<tr>
<td>Provide Customer Quote Process and Activities</td>
<td></td>
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<tr>
<td>• Record customer quote request</td>
<td></td>
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<tr>
<td>• Prepare customer quote response</td>
<td></td>
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<tr>
<td>• Deliver customer quote response</td>
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</tbody>
</table>

Processes have operational elements that cross over one or more Value Streams

Value Streams are achieved through the execution of operational elements from one or more Processes
## DEFINITIONAL GRANULARITIES – CAPABILITIES VS. BUSINESS PROCESSES

<table>
<thead>
<tr>
<th>Conduct Mailing Campaign Process and Activities</th>
<th>Basic Eligibility Determination</th>
<th>Customer Product / Matching</th>
<th>Account Risk Determination</th>
<th>Account Price Determination</th>
<th>Account Offer Finalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Prepare mailing lists of prospective customers</td>
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<td></td>
<td></td>
</tr>
<tr>
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Processes have operational elements that cross over one or more Capabilities

Capabilities are implemented by operational elements from one or more Processes
BPMN MODEL OVERLAY OF SUB-CAPABILITIES FOR ACCOUNT RESTRUCTURING CAPABILITY
POTENTIAL PATH FORWARD
OR
HOW TO BUILD SOME BRIDGES
AGREEMENT ON WHAT IS A BUSINESS PROCESS MAY PROVE TOO ELUSIVE TO SEEK OUT

Q: Which of these is a process model?
A: It depends who you are asking!


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### DIFFERENT PROCESS SEMANTICS FOR DIFFERENT VIEWPOINTS?

<table>
<thead>
<tr>
<th>Viewpoint</th>
<th>Activity</th>
<th>Event</th>
<th>Sequence</th>
<th>Boundary</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA View</td>
<td>High-level/Fairly abstract</td>
<td>Notional Start and End(s)</td>
<td>Serial</td>
<td>Notional Participants and Roles</td>
<td>Alignment Analysis Possible</td>
</tr>
<tr>
<td></td>
<td>Milestone view</td>
<td></td>
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</tr>
<tr>
<td>BMP View</td>
<td>Lower levels/More concrete</td>
<td>Typed Start, End(s), and Intermediate</td>
<td>Serial, Parallel, Conditional, Event-based</td>
<td>Collaboration across spans of control</td>
<td>Process Improvement Analysis Possible</td>
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This would at least open up the possibility of using a common modeling language such as BPMN!
MODELING AND MODEL MANAGEMENT
BURDENS MAY INCREASE DURING TRANSITION

Process Classification Framework
(with notional attributes)

BPMN Modeling Meta Model
(with notional attributes)

BPMN Models

BPMN Modeling Meta Model
(with relevant elements and attributes)

BPMN Model Elements

Enforces rules of BPMN language

Organizes different BPMN modeling views

Normalizes the mapping of high-level processes to lower-level business processes

E2Es & Other Top-level Processes

Business Architecture Framework
(with relevant concepts and attributes)

BPMN Model Elements

Incorporates all of the process concepts into the larger Business Architecture

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TRANSITION FROM BA TO BPM WILL BE FUZZY

Support for Incremental Development of the Process Model
• Defined Sequence of BPMN Element Consideration and Use
• A Logical progression through the BPMN 2.0 Primitives

Focus on Key Perspectives I
• Performers and Handoffs
• Collaboration and Message Flow

Focus on Key Perspectives II
• Decisions and Outcomes
• Data-based and Event-based

Clear Purpose, Scope and Domain Vocabulary
• Customers, Value Delivered, Terminology and Major Milestones
• Important work done up front before detailed ‘boxes and arrows’

Manage Complexity and Level of Detail
• Block-structured Repetition and Exceptions
• Appropriate Use of Data Representation

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TRANSITION FROM BA TO BPM WILL BE FUZZY CONT’D.

E2E Process
Level 0

E2E Process
Level 1

E2E Process
Level 2

Zero or More Discrete Business Processes

Strong Decomposition

Weak Decomposition

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A high-level process model is more abstract, describing operational behaviors in terms commensurate with what can be understood at such a distant view.

Most modeling languages, including OMG's Business Process Model & Notation (BPMN), support “fit-for-purpose” modeling at different levels of detail.

A low-level process model is more concrete, describing operational behaviors in terms commensurate with what can be understood at such a close-in view.

Relating together model levels that describe the same set of operational behaviors – in order to establish agreement among those levels – requires confirming the equivalency of core characteristics across those levels:

- Are the trigger state(s) and end state(s) the same or consistent?
- Is the span of control the same or consistent?
- Is any decomposition within a level consistent with other levels?
- Are exchange interfaces the same or consistent?

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BPMN PRIMER FOR HIGH-LEVEL E2E PROCESS MODELING

Modeling an E2E process in a language, such as BPMN, typically requires a simple set of modeling concepts but with requisite adherence to the language’s rules:

- **Start Event**: Indicate the undefined start of a process
- **Activity**: Indicate a separate (perhaps undefined) set of decomposed activities that is itself a process
- **Subprocess (Collapsed)**: Indicates a separate (perhaps undefined) set of decomposed activities that is itself a process
- **Sequence Flow**: Indicates a logical sequencing of activities/events that require upstream activities/events to complete before downstream activities/events can occur
- **End Event**: Indicates acknowledgement of the end of a process thread

E2E is high-level, so undefined start is appropriate

E2E is high-level, so representation of compositional abstract activities is appropriate

E2E is high-level, so simple sequencing of activities (with no control flow logic) is appropriate

E2E is high-level, so undefined end is appropriate

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CONCLUSIONS

Not wavering from the paper’s assessment that there are likely better architectural concepts for representing role of activities in a business model than decomposable high-level E2E process models, but concede that a large body of historical work and existing projects use such constructs effectively.

Heart of the matter is what actually constitutes a business process (as well as what is a capability or value stream), but we should be able to settle on a single language (BPMN) that can be used to enforce standard meanings for model elements and will support different model views for more detailed expressions.

How to resolve the squishy transition from high-level representations for the business model (for a BA effort) to more detailed representations for the operating model (transition to a BPM effort) remains an avenue of research and development (e.g., perhaps a refactoring of BPMN is needed for BA modeling).