

Business Process Modeling, Management and Mining

BPM³ Introduction

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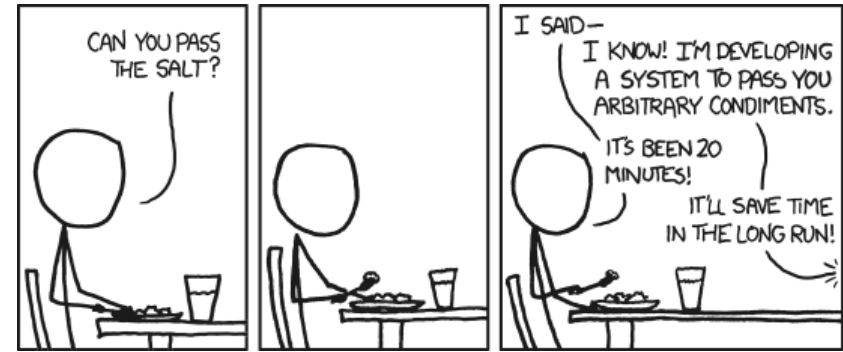
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1 / 30

10 / 30

Processes not needed:



<http://xkcd.com/974/>

8 / 30

11 / 30

Business Process:

set of coordinated activities to jointly realize a business goal

Processes not needed:

1 Person

1 Time

1 Hour

9 / 30

12 / 30

Process Activities:



Manual

- performed by people



Semi-Automated

- performed by people using software



Automated

- performed by software

Organization Types

1. Simple Structure
2. Machine Bureaucracy
3. Professional Bureaucracy
4. Divisionalized Form
5. Ad-hocracy

Coordinating Mechanism

Direct Supervision

Standard **Work Processes**

Standard Skills

Standard Output

Mutual Adjustment

Standard Processes

Explicit Rules and Regulations

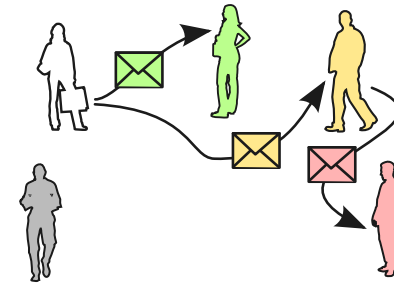
"an obsession for Control"

Planning (once) before Execution (many times)

Simple and Stable Environment

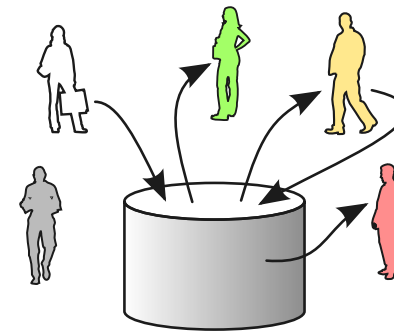
Mature, Large Organisations

email-centric organization



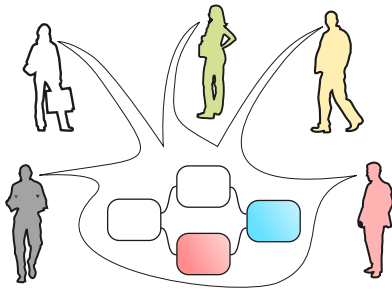
Coordination and information sharing is achieved through email messaging. Processes are implicit and participation is driven by email.

data-centric organization



Information is centrally managed. Processes are still implicit, even if their effects are visible as the data changes.

process-centric organization



Processes are explicitly modeled and executed by participants that use them for coordination and orderly information access.

Examples

Quote to Order, Order to Cash

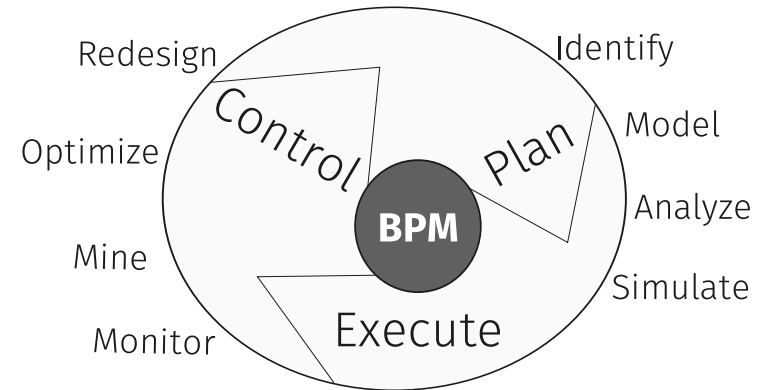
Procure to Pay

Application to Decision (Approval/Rejection)

Issue to Resolution

Claim to Settlement

BPM Lifecycle

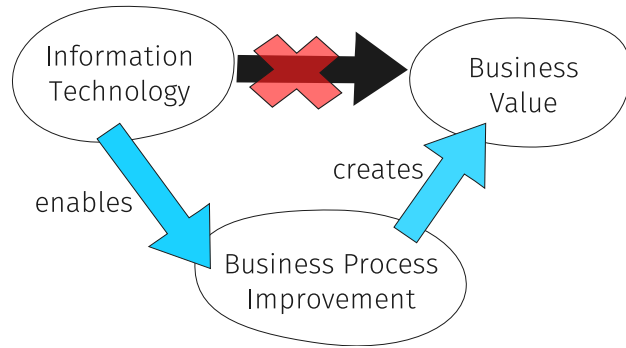


Automation

The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency.

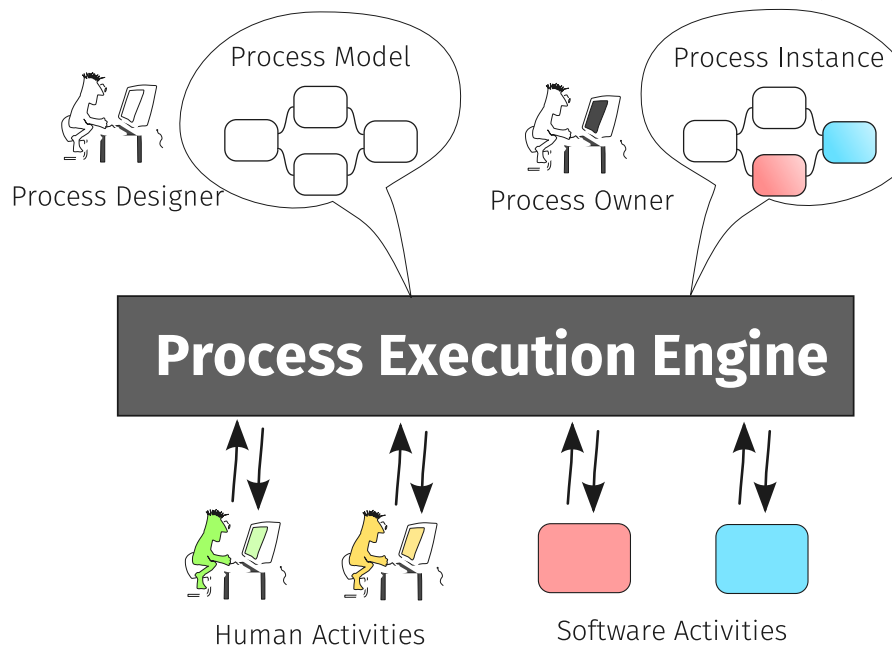
The second is that automation applied to an inefficient operation will magnify the inefficiency

Bill Gates



Types of Process Engines

- Process Representation:
Generic (Explicit) vs. Hard-Coded (Implicit)
- Process Modeling Language:
Standard vs. Custom
- Deployment:
Standalone vs. Embedded



IT Trends

- Data → Processes
- Programming → Composition
- Top-down Design → Bottom-up Redesign

References

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- Marlon Dumas, Marcello La Rosa, Jan Mendling, Hajo Reijers, [Fundamentals of Business Process Management](#), Springer, 2013, ISBN 978-3-642-33142-8
- Wil M. P. van der Aalst, [Process Mining: Discovery, Conformance and Enhancement of Business Processes](#), Springer, 2011, ISBN 978-3-642-19344-6