

Artifact-Centric Workflow & BPM

- A Guided Exposition -



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Diego Calvanese, Marlon Dumas, Giuseppe De Giacomo

Introduction



(Rick &) Jianwen

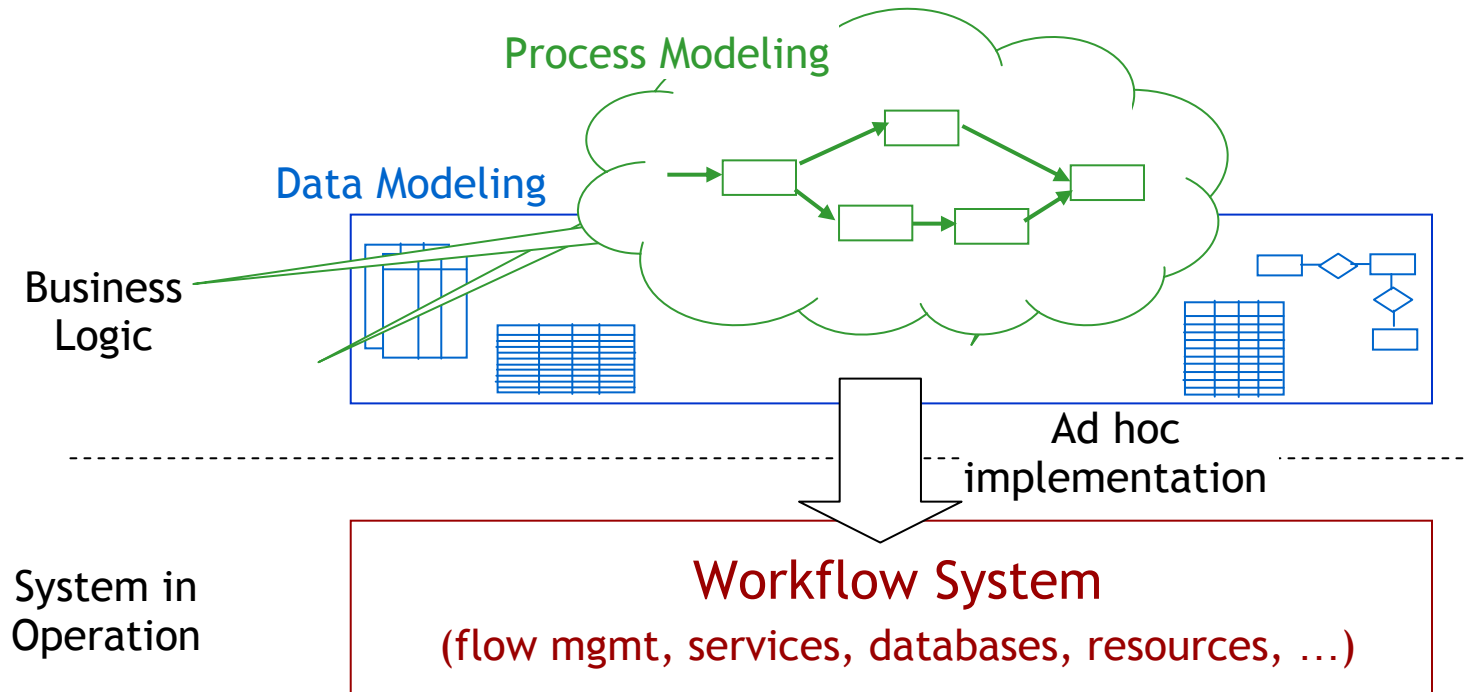
Think Outside of the "DB" Box

This economy challenges us
to truly think outside the box.



John Klossner

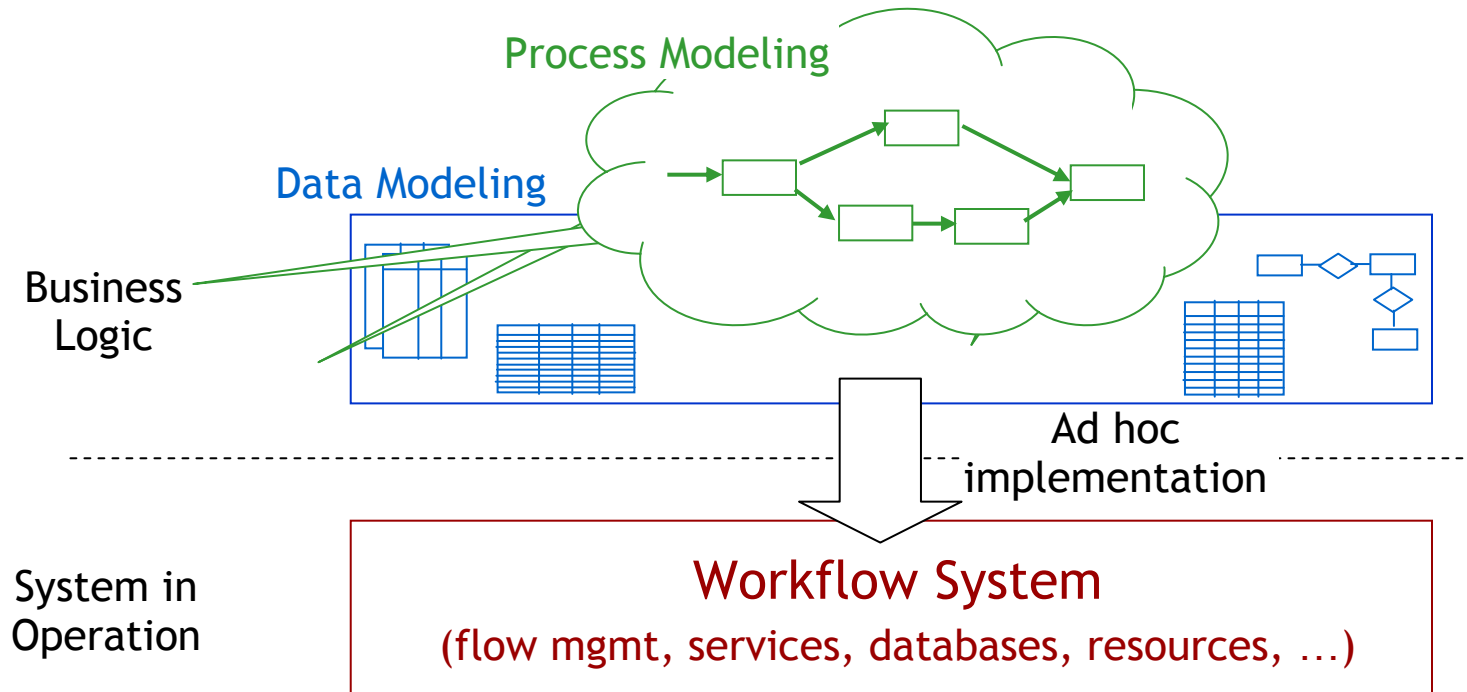
What Are the Issues?



❖ Workflow management:

- Managing executions & allowing measurements
- requirements changes, add/delete workflows, optimization, ...

What Are the Issues?



❖ BP management:

- Design, deployment, management of workflows
- Resource (including human) management
- Enterprise organizations, roles, ...

The Problems Are Challenging

❖ Importance:

- Businesses are struggling
- BPM is a big and growing industry

❖ Right timing

- DB boxes, Web, services, SOA, SAAS, ...
- Data management/integration, XML, sw verifications, web services, ...

❖ Technical problems of workflow/BPM still need to be formulated and studied, many are hard

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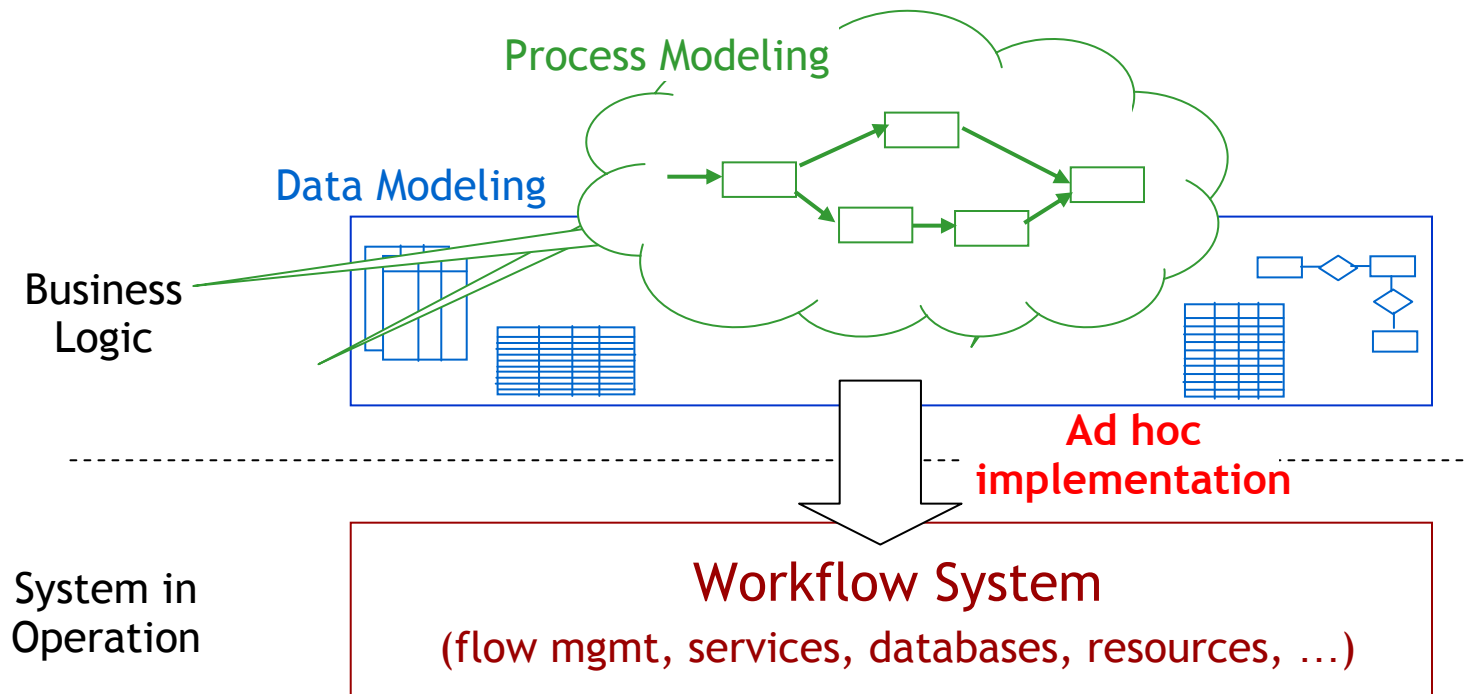
Especially since there isn't a box anymore.

CIO



John Klossner

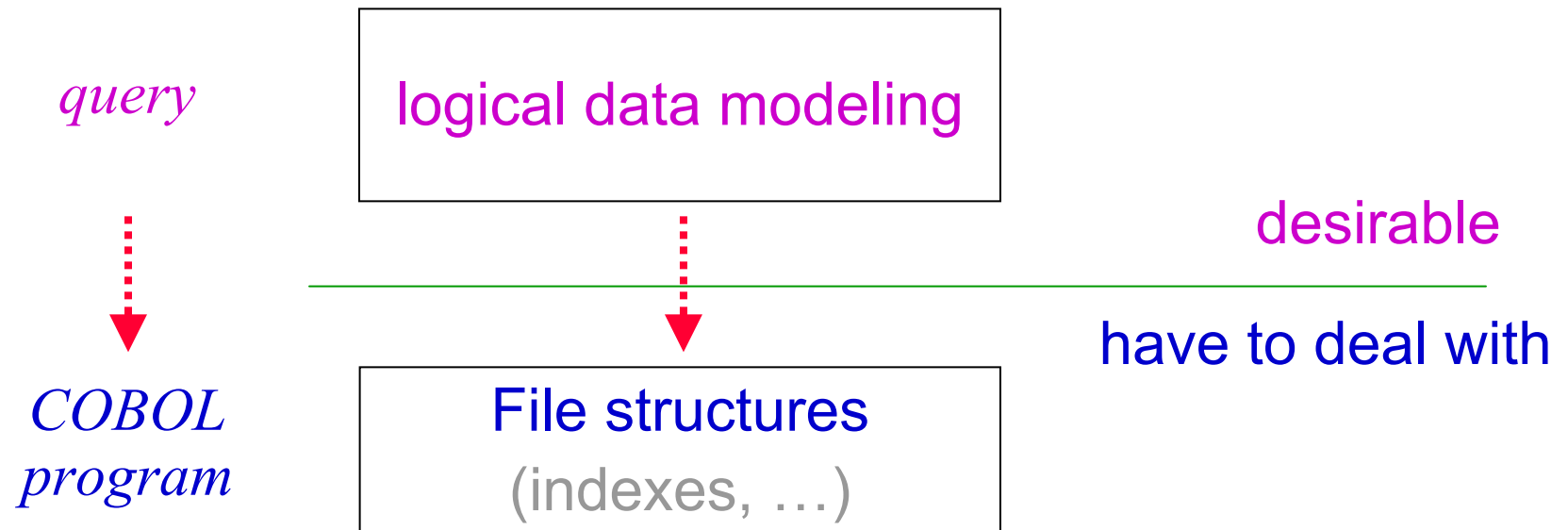
What's Wrong?



- ❖ **Ad hoc implementation** is an art: unreasonable, may lose much **business “sense”**
 - Even worse: contracted out, no valuable machine readable documentation of design decisions

DB Box In the Old Days (60's)

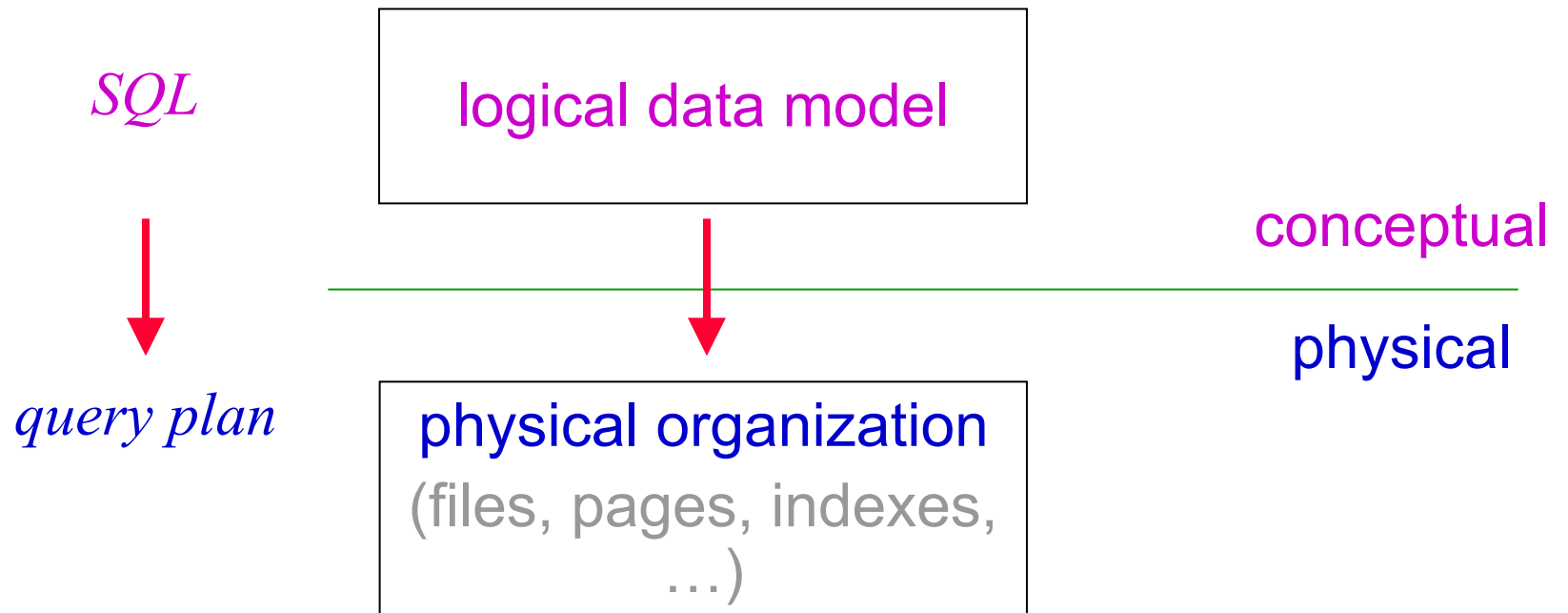
- ❖ Current BPM: reminiscent of the DB field in the 60's
 - Driving applications: inventory control, financial data management



- ❖ The key was to automate the s

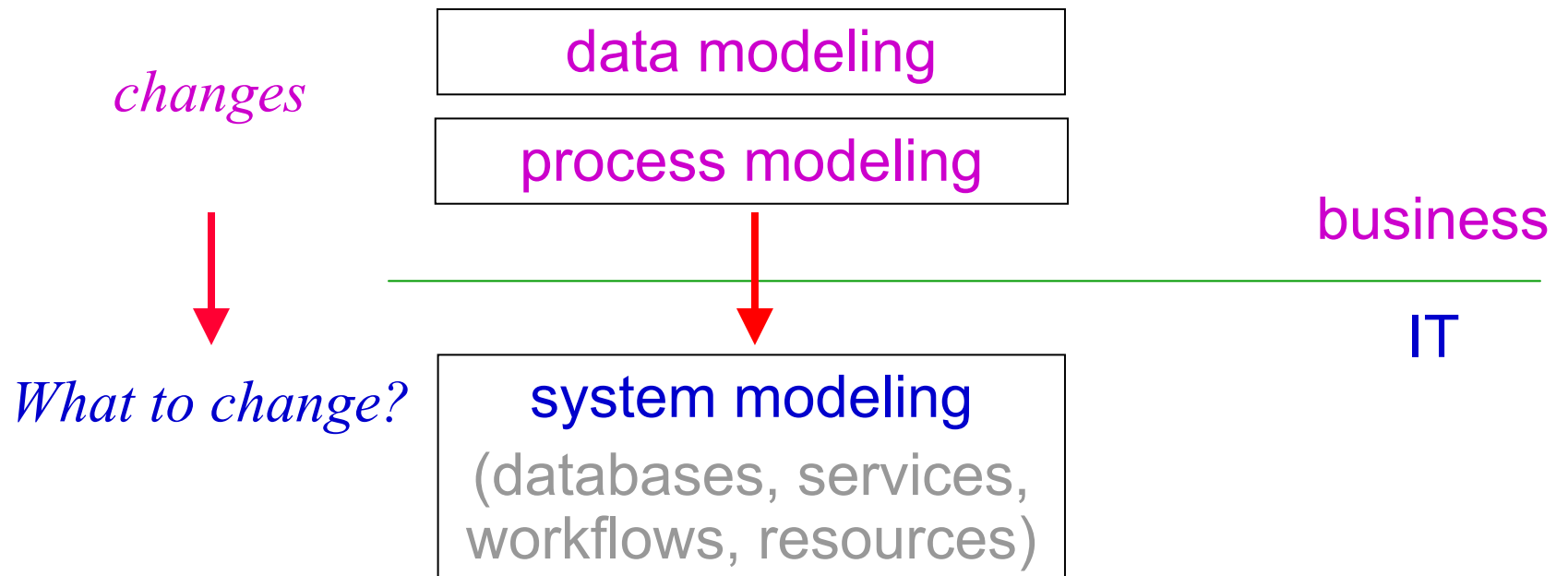
The Contribution of Relational Data Model

- ❖ Physical data independence allows us to focus only data management issues



Future of BPM/Workflow?

❖ Automate → 's



- ❖ Reuse concepts, tools, techniques developed in CS
- ❖ First step: a single conceptual model for business processes
 - both data and processes are 1st class citizens

Plan for Today . . .

- ❖ Rick Hull : Introduction to Artifact-centric Approach
- ❖ Terry Heath : Demo of the Siena prototype system
- ❖ Rick : ArtiFactTM 0.1
- ❖ Alin Deutsch : Analysis for Declarative Artifact-Centric Workflows
- ❖ Jianwen : Analysis for An Alternative Model
- ❖ Diego Calvanese : Expressive Power of Artifact BPs
- ❖ Discussions 1
 - Modeling Artifact BPs (Jianwen)
 - (Process/workflow) integrity constraints (Alin)
- ❖ Evening (not part of the formal program)
 - Terry : Tutorial on Siena for building workflow schemas

. . . and Tomorrow Morning

❖ Marlon Dumas : Flexible Artifact-Centric Process Models

❖ Jianwen : Artifact workflow synthesis

❖ Discussion 2

- Ontologies and Artifact-Centric workflow (Diego Calvanese & Giuseppe De Giacomo)
- Interoperation and Artifact-Centric (Rick)
- Business Process Management Systems (Jianwen)