

Towards a Model for Assessing Collaboration Capability Between Development and Operations

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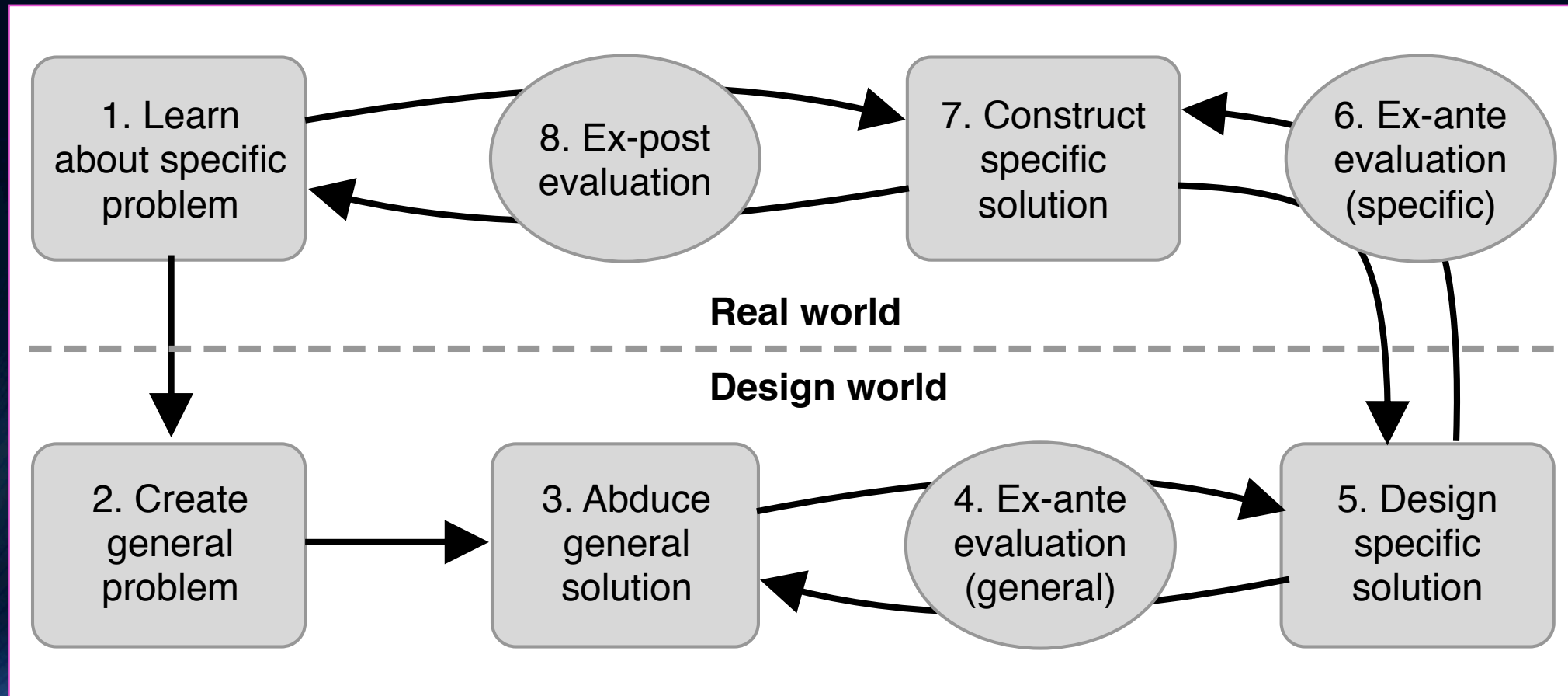
Purpose

- To develop a general model for assessing the capabilities of organizations to collaborate on the provision of IT services
- Focus on the organizational units Development and Operations
- Informed by theory and grounded in empirical evidence
- Approach: Design Science

Background

- Humble and Molesky (2011, p.6) posit that the division between development projects and operations “... has become a serious constraint both on the ability of businesses to get new functionality to market faster and, ironically, on the ability of IT to maintain stable, highly available, high-quality systems and services”
- The lack of collaboration between Dev and Ops has been captured in the popular term DevOps
- DevOps means “A cultural change that consists of collaboration, open communication, merge of incentives and responsibilities, respect and trust” (Walls, 2013).

Soft Design Science Methodology



1. Learn about the specific problem

- 11 interviews with 7 organizations
- Outcome: The need for a *consolidated* and *usable* model for assessing collaboration between Dev and Ops
- Study of literature and practitioner frameworks
- Outcome: A list of potential *capabilities* and *maturity levels*

2. Create the general problem

- “There is a lack of a generally accepted model for assessing collaboration capability in the IT sector”

3. Intuit and abduce the general solution

- Literature study
- Outcome
 - Capabilities: collaboration culture, service co-creation, resource and knowledge sharing, and continuous improvement
 - Maturity levels: incomplete, performed, managed, established, predictable and optimizing

4. Ex Ante Evaluation (General)

- Workshops with practitioners and researchers
- Outcome
 - A new capability: service automation
 - A reduced set of maturity levels: performed, managed, and established

5. Design a specific solution

- Workshops with researchers and practitioners
- Outcome: A list of indicators for measuring the maturity for each of the capabilities
- Examples for capability „collaboration culture“
 - Dev and Ops have defined processes known by all involved roles
 - There are process owners that monitor and control our processes
 - Dev and Ops have visible processes followed by all involved roles

6. Ex-Ante Evaluation (Specific)

- Workshop with practitioners
- Structured feedback on the indicators: abandon, keep, revise
- Outcome: a consolidated list of (mostly) revised indicators

7. Construct specific solution

- A matrix with
 - 5 capabilities and
 - 10 indicators per capability
- The indicators are formulated as statements
- In an assessment session the statements are scored by both Dev and Ops independently
- For low scores action points are identified
- A web-based tool to support assessment

8. Ex-post evaluation

- With the help of the assessment tool

The screenshot shows the 'improve FOR DEVOPS' interface. On the left is a sidebar with navigation options: 'Prepare Round', 'Collaboration Assessment' (selected), 'Ops Assessment', 'Dev Assessment', '» Combined Assessment', 'Service Innovation', and 'Decision'. The main area is titled 'Collaboration Assessment' and contains several tabs: 'Collaboration Culture' (active), 'Service Co-creation', 'Resource and Knowledge Sharing', 'Service Automation', and 'Continuous Improvement'. Below the tabs, there are input fields for 'Assessment date' (11/6/2018) and 'Participants' (John (Dev), Emma (Dev), Glen (Dev), Stephen (Ops), Peter (Ops), and Dawn (Ops)). An 'Expanding text' button is also present. The main content area is a table with three columns: 'Statement', 'Dev Assessment', and 'Ops Assessment'. The table is currently showing the 'Process Operation (level 1)' section.

Statement	Dev Assessment	Ops Assessment
Process Operation (level 1)		
1st Dev and Ops have defined processes known by all involved roles	4 Yes	3 A project for knowledge exchange is started
2nd There are process owners that monitor and control our processes	4 There are product owners monitoring quality	4 Yes, Ops has incident coordinators
3rd Dev and Ops have visible processes followed by all involved roles	4 We have the information necessary	3 Sometimes we depart from the processes

That's it

- Thanks for your attention
- Comments and questions are welcome

