Future Cities Institute

From the SelectedWorks of Malcolm Fraser

July 17, 2009

Information Technology Governance: Moving with Business Best Practice

Malcolm Fraser, *Southern Cross University*

Available at: https://works.bepress.com/malcolm_fraser/2/
Information Technology Governance

“Moving with Business Best Practice”
Agenda

• What’s really Important?

• Managing Change

• Managing Complexity

• Managing Projects
Background

- 29 years electronics and software (still learning)
- Microsoft Partner, infrastructure and development
- Mobility Director Gap Gemini Asia Pacific
- Master in Business, Research and Doctorate
- Innovation Centre Management Network
- Software Business Management 30 countries
What is IT Governance?

IT Governance is a subset discipline of Corporate Governance focused on information technology (IT) systems and their performance and risk management.

It is the acknowledgment that IT projects can easily get out of control and profoundly affect the performance of an organization.
What’s Important?

• The CMAA is an association of club managers

• What constitutes a club?

• What’s important…Club Members
What’s Really Important?

• Does it make the boat go faster?

• Do club members benefit?
So what we are really dealing with

The Club ‘Business’ is simple, IT systems can be complex,

Managing complex IT…Simply

1. Business as usual – don’t fiddle with it
2. Business not as usual – Managing change
3. And, reduce complexity
There is nothing wrong with...
There is everything wrong with...
Managing Change
Change = Ambiguity

Environmental Ambiguity Model:
Moving from the ability to do tasks, to the ability to solve problems
If Everything Changes

• In an environment of constant change and high ambiguity.

• A focus on what makes the boat go faster, *anchors* strategy and provides a direction, like a compass.

• Set the vision, manage complexity and manage change.
Do club members benefit?
Managing Complexity
Agenda

• Managing Complexity
  – Business Systems and Complexity
  – Using Partitions to Manage Complexity
  – Autonomous Business Capability
Key Assumptions

• IT failures are not the problem, they are symptoms of a problem…

  – The real problem is complexity

• Control complexity and IT success follows

• Fail to control complexity and nothing else matters
Complexity Grows Organically
Ways to Control Complexity

• Intentionally
• Accidentally
• Not At All
Partitioning Reduces Complexity

In business processes …
Complexity = (Branches per Decision Point)^Decision Points
Business Systems and Complexity

Complexity (or system disorder) = (Branches per Decision Point)
The Status Quo
Partition $\rightarrow$ Reduce the States
Partition → Simplify (reduce sets)
In Simple Terms

- Use Partitions to slash complexity
- Simplify the partition as much as possible
- Iterate through the subsets of the partition to form ABCs

- Prioritise implementation of partitions
- Generate the roadmap
More Information

- You can find out more about managing complexity using Simple Iterative Partitions (SIP) at www.objectwatch.com
Managing Change

(Project Management)
Not your projects, right?
What is a Project?

- A project is a temporary endeavor undertaken to create a unique product, service or result.
- The temporary nature of projects indicates a definite beginning and an end.
- The end is reached when project’s objectives have been achieved or when the project is terminated because its objectives will not or cannot be met, or when the need for the project no longer exists.

What is Project Management?

- Project Management is often considered a key element in achieving results aligned with organizational strategy.

- Project management is instrumental in driving organizational change and strategic positioning.

- Multi-project management is program management and required ‘governance’.
Continuing challenges in IT based projects

- 19% canceled - “outright failure”
- 46% “cost or time overruns ... didn’t fully meet user’s needs”
- Only 35% completed on time, on budget, with promised functionality
- Initial performance & reliability are often less than expected & needed

- Cancellation rate increases w/size:
  - 32% large projects cancelled (> 10K FPs)
  - 52% very large (> 100K FPs)

FPs = Function Points
Capers Jones, 2009
Few Reasons for Project Failure

• Lack of executive buy in or sponsorship
• Lack of understanding the requirements
• Poorly defined roles and responsibilities
• Unclear scope
• Improper risk management
• Poor communication between project team
Two main factors contributing to project failures

• Outcome
  – Knowledge and understanding of what is required
  – Developing and implementing strategies to meet organizational goals

• People
  – Project Team
  – Stakeholders
## Goals for Successful Projects

<table>
<thead>
<tr>
<th>Typical Symptom of Challenged Project</th>
<th>Related Project Goal for Success</th>
<th>Goal Ownership</th>
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<tbody>
<tr>
<td>“The project was late and over budget”</td>
<td>Deliver within project constraints</td>
<td>?</td>
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<tr>
<td>“What was built really isn’t what we needed”</td>
<td>Build to specifications</td>
<td>?</td>
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<tr>
<td>“This thing is unpredictable – we keep discovering new problems”</td>
<td>Release with issues identified and addressed</td>
<td>?</td>
</tr>
<tr>
<td>“We can’t get it to operate well in our environment”</td>
<td>Deploy smoothly and prepare well for ongoing operations</td>
<td>?</td>
</tr>
<tr>
<td>“It’s just too difficult to use”</td>
<td>Enhance user effectiveness</td>
<td>?</td>
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<tr>
<td>“It doesn’t meet our expectations – we’re not happy”</td>
<td>Satisfy customers</td>
<td>?</td>
</tr>
<tr>
<td>“Needed information is not shared timely to all who need it”</td>
<td>Establish good communications</td>
<td>?</td>
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About ‘Agile’

• Agile Project Management

• Microsoft Solutions Framework,

• The following slides are taken from the above sources, please refer to them for further information
The Agile (MSF) Project Team

- **Product Management**: Delivery within project constraints
- **Development**: Delivery to specifications based on user requirements
- **Testing**: Release only after identifying and addressing all issues
- **Release Management**: Smooth deployment and ongoing management
- **User Experience**: Enhanced user performance
- **Program Management**: Satisfied customers

Team of Peers
The MSF Team & Functional Areas

Program Management
- Project management
- Solution architecture
- Process assurance
- Administrative services

Product Management
- Business value
- Marketing
- Customer advocacy
- Solutions planning

User Experience
- Accessibility
- Internationalization
- User advocacy
- Training/support material
- Usability research and testing
- User interface design

Release Management
- Infrastructure
- Support
- Operations
- Logistics
- Commercial release management

Development
- Implementation architecture and design
- Technology consulting
- Application development
- Infrastructure development

Testing
- Test planning
- Test engineering
- Test reporting

Team of Peers

36
Scaling Down – Combining Roles for Smaller Teams

Roles *may* be combined, but some combinations pose *risks*.

<table>
<thead>
<tr>
<th></th>
<th>Product Management</th>
<th>Program Management</th>
<th>Development</th>
<th>Test</th>
<th>User Experience</th>
<th>Release Management</th>
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<td>Program Management</td>
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<td>User Experience</td>
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<td>Release Management</td>
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**Possible (P)**, **Unlikely (U)**, **Not Recommended (N)**
Projects Model Overview

• Communicating Clear Tasks
Envisioning Phase Milestones and Deliverables

• Deliverables
  – Vision/scope document
  – Project structure document
  – Initial risk assessment document
Trade-offs are Part of the Process

Given fixed ___________, we will choose a ___________, and adjust ___________ as necessary.

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<thead>
<tr>
<th></th>
<th>Fixed</th>
<th>Chosen</th>
<th>Adjustable</th>
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<td>Resources</td>
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<td>Schedule</td>
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<td>Feature Set</td>
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Microsoft’s Typical Approach

Fill in the blanks
Planning Phase Milestones and Deliverables

Deliverables
- Functional specifications
- Master project plan
- Master project schedule
Developing Phase Milestones and Deliverables

Deliverables

• Solution code
• Build images
• Training materials
• Documentation
• Marketing materials
• Updated master plan, schedule, and risk document
Stabilizing Phase Milestones and Deliverables

Deliverables

• Pilot review
• Release-ready versions
• Testing and bug reports
• Project documents
MSF Deploying Phase Milestones and Deliverables

• Deliverables
  – Operations and support
  – Repository of documents, and code
  – Project closeout report
Question Time??