360 Degree View of the Technology, Strategy and Business

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Agenda

- Social Concerns
- Paradigm Shift
- 360-Degree View
- SE Leadership Theory
- Thompson’s Alignment Model
- Success Story
- Emerging Alignment Themes
- Conclusion
- Q & A
Social concerns and theoretical interests

- Lack of understanding IT's business value
- Ever changing organizational structure
- Danger of IT overspending
- Increasing IT spending
- Increasing dependence on IT
- The changing CIO roles
- IT and business alignment is a must
- The pressing urgency
- Establish irreversible momentum for change

Thompson (2008)
What is a Paradigm Shift?

- Thomas Kuhn (1962) first used this term in his influential book, “The Structure of Scientific Revolutions”, to describe a change in basic assumptions within the ruling theory of science.
- Jastrow (1899) used the duck-rabbit optical illusion to demonstrate the way in which a paradigm shift could cause one to see the same information in an entirely different way.
- The term has been adopted since the 1960s and applied in non-scientific contexts (Wikipedia).

The famous duck-rabbit ambiguous image. Is it a duck? Is it a rabbit?

Paradigm Shift for SE Professionals

View, Understand, Map, & Manage

Technology

Business

Strategy

Individual Contributor

Program Leadership
Paradigm Shift for SE Leaders

- **360-Degree Leader**
  - Serves others
  - Needs to practice and be trained
  - Works as a program leader
  - Shines as a setting sun: Make others successful

- **Strategy & Business Leader**
  - Encourages Teamwork
  - Works as a Coordinator
  - Makes wise decisions
  - Works as a project leader
  - Has risk of losing passion of technical leadership
  - Shines as a high noon: Strong

- **Technology Leader**
  - Is a leader of technology
  - Is a hero/heroine for warriors
  - Works as a technical task leader
  - Has risk of asking too much of a control
  - Shines as a rising sun: Potential
Leadership

Visionary: Provide vision for changes
- Core values (what we stand for, that is, Imagination: Walt Disney)
- Core purpose (why we exist, that is, To make people happy: Walt Disney)
- Envisioned future includes long-term goals (that is, Become the Harvard of the West: Stanford University, 1940s)

Technical
Business
Functional
Managerial: Produce plans for stability and leaders

Technology
Process
People
Poppendieck’s (2007) SE Leadership Theory

- **Builder of Learning Organizations**
  - Here is our purpose and direction – I will guide and coach!

- **Group Facilitator**
  - You are empowered!

- **Task Manager**
  - Here is what to do and how to do it!

- **Bureaucratic Manager**
  - Follow the rules!

The role of leadership in software development by Mary Poppendieck, 2007 (Originally from The Toyota Way, Jeffery Like, p. 181)
- Shape the Future
- Build Effective Relationships
- Energize the Team
- Deliver Results
- Model Personal Excellence, Integrity, and Accountability
Thompson’s (2000) Alignment Model

Business Performance

Enterprise Management

Strategic Management

People

Organization

Info-structure

Process

Capability Production Management

Relationship Management

Operations & Maintenance Management
Program Overview:

- Provides a wide range of systems engineering services to a civilian government agency nationwide
- Nine-year contract worth approximately $700 million
- Indefinite Delivery/Indefinite Quantity (IDIQ)
- Restructured and empowered to implement the program-wide technology governance and sharing
  - Architectural Control Board (ACB)
  - Organizational Process Group (OPG)
  - Sr. Technical Council
- Established
  - Chief Technology Officer (CTO) 360-Degree Dashboard
  - Technology Inventory
  - Distributed Software Development Team (Develop globally, manage centrally)
  - Continuous Integration & Automated Testing
  - Standard Defect Tracking
  - Document and Knowledge Management
  - Removing Accidental Complexity from Architectures
  - Challenge – Action – Results
**Initiative 2: Technology Vision and Roadmap - STRATEGY**

- **Collaborate with**
  - **Customer**
    - Enterprise Architecture (EA) Workgroup
    - Web Workgroup
    - Portal Workgroup
    - SOA Workgroup
    - GIS Workgroup
    - National Computer Center
  - **Industry**
    - Software Vendors
    - Consortia
  - **LM**
    - LM Engineering Process Improvement Group
    - LM Center of Excellence (COE)
    - LM IS&GS Advanced Technology Group
    - LM NexGen
    - LM I&KS Technical Council
- Provide the *active and quality support* to the Task Order Project Officers (TOPO) and Contract Technical Managers (CTM) to solve their business challenges in a timely fashion.
- Conduct the analysis of customer needs to ensure the program provides the leading-edge solutions that meet and exceed customer expectations.
- Restructure one of Task Orders to include consultations on the Enterprise Tools Best Practices.
- Establish a viable business operation model
- Earn trust, enhance competency, and establish strategic partnerships
- Pursue IT capability as a means of enhancing business functions
- Expand skills, build teams, and maximize productivity
- Instill an effective governance structure

(Thompson, 2008)
360-Degree View is proven to be necessary and helpful for further aligning business and technology.

Business management aligned with technology planning often enhances business performance (Thompson, 2008).
Questions?
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