Technology Governance

Background

Information Technology Governance, is commonly understood as the formal practices and procedures undertaken by an organization for managing both operations (the currently support portfolio of services and systems) and decision-making (planning). Governance systems establish a framework, i.e. a set of best practices, that enables continuity in performance and a rational for future direction, while mitigating risk. The rising interest in IT governance, including within the UMass Office of the President and the UMass University Information Technology Services (1, 2), is partly due to compliance initiatives, which for higher education include FERPA, HIPPA, Sarbanes-Oxley and others, as well as an acknowledgment that IT initiatives are not only critical for business practices, but often an enabler.

There are narrower and broader definitions of IT governance. Weill and Ross focus on use, "specifying the decision rights and accountability framework to encourage desirable behavior in the use of IT" (3) In contrast, the IT Governance Institute expands the definition to include foundational mechanisms: "… the leadership and organizational structures and processes that ensure that the organization's IT sustains and extends the organization's strategies and objectives" (4)

Agile Methods

Agile Project Management allows existing business processes to be modified and new business processes to be developed at the same pace as the user can articulate needs. This is a stark departure from traditional front-loaded project management practices often applied in the strategic planning process. The fundamental difference between a front-loaded and lightweight approaches used in Agile methods (i.e. event driven or evidence based) boils down to planning vs. practice.

Agile methods quickly address the problems your users have.

- Joan Starr, California Digital Library, Code4Lib 2007

Front-loaded project management starts out with a heavy investment in "planning" before any development begins: this sounds like a prudent approach. Stakeholders (end-users) develop lengthy and detailed lists of requests through requirements gathering techniques such as surveying, contracting, etc. to spec out the functionality they need for a new or existing business operation. A gap analysis of available solutions may even be undertaken in order to determine the actual product that will meet their need(s) to preform the new task. A project request is usually then forwarded on for review by technical and administrative staff for the creation of a project plan, where costs, hardware, software, staffing and time are calculated based on the known requirements and expected resourcing. Using both plans (the one identifying needs to address a new business function and the other developed by technical staff to provide that function), the project moves into development. Adherence to the plans are strictly enforced. In fact, changes (as managed through a "change request"), are discouraged and may result in a financial penalty. The planning stage is emphasized as the key to successful design, development and deployment. Arguably, success in a front-loaded project management approach is determined by how well a project adheres to the plan, not on the actual quality of the work or the return (value) of the finished project to the customer.

Lightweight approaches do not attempt to plan for - or even address the entire project, but rather provide practices for undertaking tasks as they are identified. Lightweight methods address needs for which there is actual evidence for implementation rather than long-term ideals that are perceived or anticipated. Analysis is still undertaken, but is limited in scope and based on evidence: How are stakeholders currently working and what are they currently missing. Lightweight approaches also accept that, as events take place during development, changes will occur based on new information or technologies, the work completed and/or evolving requirements. This is why lightweight management processes are sometimes called evidence or event based processes.

Lightweight approaches, such as Agile Project Management, argue that there are no new projects. Rather the design, development and deployment of new systems or services are seen as a series of relatively small tasks conceived and executed as the situation demands in an adaptive manner, rather than as a completely pre-planned process (project). Projects are really the extension of current operations that evolve from issues.

Resources

- Wikipedia

Stakeholders

UMassOnline works with a variety of stakeholders in the delivery and advancement of online education, these include:

- Instructional Designers
- Faculty
- Students
- CE offices

Are there formal groups that represent these constituents? How do we engage with these groups?

Instructional Designers, staff from CE offices and some faculty participate in our UMOL/Campus Biweekly Meetings

Assessment

The Capability Maturity Model (CMM), developed by Carnegie Mellon University, refers to a development model elicited from organizations contracted by the U.S. Department of Defense and is now maintained by the Software Engineering Institute (SEI). When it is applied to an existing organization's development processes, it allows an effective approach toward understanding and improvement.

A maturity model can be described as a structured collection of elements that describe certain aspects of understanding and continuity within an organization. A maturity model may provide, for example:

- a place to start
- the benefit of a community's prior experiences
- a common language and a shared vision
- a framework for prioritizing actions
- a way to define what improvement means for your organization.

A maturity model has been applied to assess awareness and standardization within UMOL's technology development and operational practices.

References

1. DRAFT: UMass ITLC Governance Model Processes
2. University of Massachusetts Applications Governance Model
3. Nolan, Richard; McFarlan, F Warren (2005), "Information Technology and the Board of Directors", Harvard Business Review (Boston etc. Graduate School of Business Administration, Harvard University): 96, ISSN 00178012, OCLC 99319467, http://www.worldcat.org/oclc/99319467
4. Weill, P. & Ross, J. W., 2004, IT Governance: How Top Performers Manage IT Decision Rights for Superior Results", Harvard Business School Press, Boston.