Roadmap

TOOLS FOR NAVIGATING COMPLEX DECISIONS

Process and Politics: IT Governance in Higher Education

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KEY FINDINGS

- Institutions tended to report low (but not nonexistent) levels of IT governance (ITG) maturity.
- An overwhelming majority of respondents (81%) said that the CIO was perceived to be responsible for IT governance at their institutions.
- IT governance at respondent institutions involved many participants. Central IT was by far the most frequent participant in both input and decision making, followed by local IT. Business unit leaders and cabinet executives were the most frequent non-IT participants.
- Central and local IT tended to dominate input and decision making in technical areas like IT architecture and infrastructure. In more strategic and business areas, participation was more diverse and crossed organizational levels.

Selected Items Associated with Overall IT Governance Effectiveness

Item	Item Agreement Level	ITG is effective overall.*
ITG at my institution has been actively designed.	Strongly disagree/disagree	3.02
	Neutral	3.50
	Agree/strongly agree	3.98
We incorporate measurement and reporting in our IT governance process.	Strongly disagree/disagree	3.25
	Neutral	3.69
	Agree/strongly agree	4.03
IT governance can be accurately described by all relevant executives, deans, and department heads.	Strongly disagree/disagree	3.16
	Neutral	3.83
	Agree/strongly agree	4.31
Does IT governance at your institution participate in institutional budgetary processes?	No	3.24
	Yes	3.93
Does IT governance involve formal review and approval of IT projects at your institution?	No	3.42
	Yes	3.97

**Scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree*

- Most institutions reported moderately good IT governance performance and agreed that ITG was effective at their institutions. Among our respondents, IT governance performance and effectiveness were positively associated with frequent constituent participation, effective communication of ITG decisions and processes, and the ability of key participants to describe ITG accurately.
- Processes and mechanisms strongly associated with good ITG outcomes included the active design of ITG, participation in institutional budgetary processes, ITG involvement in project review, and the incorporation of measurement and review into ITG.

In recent years, financial scandal and a new web of accounting and privacy regulations have brought renewed interest to questions of how corporate and other entities govern themselves—that is, how they distribute high-level decision-making authority and pursue strategic objectives aligned with the interests of shareholders and other stakeholders. Much of this activity grew out of

This ECAR Roadmap synthesizes the results from 438 responses from a survey of senior IT administrators, and 216 responses of non–central IT participants about ITG. The online surveys were administered in June 2007, and they were supplemented by interviews with 28 IT leaders engaged in ITG. For full analysis, see the 2008 ECAR study, Process and Politics: IT Governance in Higher Education. *To order the full study or to learn about subscribing to ECAR, visit the ECAR website at http://www.educause.edu/ecar/ or contact us at ecar@educause.edu.*

ECAR EDUCAUSE CENTER FOR APPLIED RESEARCH

TERMINOLOGY

The definition of IT governance used in this study comes from MIT researchers Peter Weill and Jeanne Ross: IT governance means "specifying the decision rights and accountability framework to encourage desirable behavior in using IT."[1] More informally, ITG is concerned with who makes which decisions, who provides inputs and analyzes the issues, who sets priorities, and who settles disputes when there is no clear consensus. IT governance is concerned with the whole enterprise IT function, not just the central IT organization.

It's important to distinguish between IT governance and IT management. Though IT governance should have pervasive influence, it is not concerned with the details of executing decisions or with day-to-day operations. Nor is it a collection of policies, but rather a process for creating policies.

painful lessons learned in the dot-com collapse and, more generally, out of the social and economic transformations brought about by the Internet. So it's not surprising that along with the renaissance of interest in corporate governance there has been a particular flowering of attention paid to how organizations should govern the expensive, complex, indispensable domain of information technology (IT).

Higher education, with its diverse constituencies and its own traditions of institutional governance, has a particularly strong stake in the issue of good IT governance. List the strategic concerns that drive institutional agendas—educational performance, research productivity, accountability, program design and instructional delivery models, recruitment, the student experience, the cost of education—and IT will have a heavy, perhaps defining, impact on each. Scan the constituencies that use IT, and a vibrant user community will be evident—one that is increasingly confident and demanding in its technology-related views. Both developments suggest that campus decisions about information and information technology will become still more critical and complex. In fact, sometimes it seems IT attracts so much controversy that it can thwart any attempts at governance.

But of course, it's just such complexity that calls for governance. The EDUCAUSE Center for Applied Research's study, *Process and Politics: IT Governance in Higher Education,* reflects the higher education IT community's concern about the exploding "politicization" of IT on campuses. Our aims in this study are to provide readers with information about the state of higher education IT governance and to identify practices associated with ITG effectiveness.

IT Governance Maturity and Context

Virtually all of our respondent institutions reported some kind of IT governance, though they did not, on the whole, perceive IT governance at their institution as highly mature. On a six-level maturity scale, only a handful characterized their institution's ITG maturity at the lowest level (nonexistent), but almost 6 in 10 chose one of the next two levels: initial (ITG is informal and uncoordinated) or repeatable (ITG processes follow a regular pattern). Only about 16% chose the two highest levels: managed (ITG processes are monitored and measured) and optimized (employing ITG best practices). Slightly over half agreed or strongly agreed that ITG was actively designed at their institutions.

Our respondents overwhelmingly agreed that IT governance was perceived to be the responsibility of the senior IT leader at their institutions. Another result suggests that one of the challenges often attached to this responsibility is working with ITG participants who aren't entirely familiar with the process. Respondents averaged a less-than-neutral response (mean 2.68) on our 5-point scale (1 = strongly disagree, 5 = strongly agree) when asked about their agreement that IT governance could be accurately described by all relevant executives, deans, and department heads. Agreement, however, rose dramatically with levels of ITG maturity.

Inputs and Decision Making

Our study looked at four different dimensions of participation in IT governance: what sorts of decisions governance makes (decision types), who takes part (participants), whether participation takes the form of providing input or making decisions (participation type), and how often participants take part (frequency of participation).

Our basic finding will make sense to anyone familiar with the decentralized and often consensus-seeking world of higher education: participation in IT governance is widespread among our respondent institutions, though differentiated depending on participant and decision type. We only found a handful of decision type/participant combinations in which majorities of respondents said a certain participant type "very rarely or never" provided input. Senior central IT leaders and managers were easily the most active type of participant across all decision types. Cabinet-level executives had the second-highest mean frequency of participation in decisions relating to fundamental IT principles and IT investment and prioritization, while local IT managers had the second-highest participation in applications, IT

METHODOLOGY

Process and Politics: IT Governance in Higher Education used the following research approach.

- A literature review to identify issues and establish research questions.
- Consultation with higher education leaders active in IT governance to identify and validate survey questions.
- A web-based survey for senior IT administrators about IT governance maturity, participation, structures and processes, performance, and effectiveness.
- A web-based survey for non–central IT participants in IT governance. ECAR assembled a group of senior IT leader survey participants who each invited up to five IT governance participants working at their institutions in units outside the central IT organization to answer a small subset of questions from the main survey about IT governance performance and effectiveness.
- Qualitative interviews with 28 IT leaders, and the input of the 44 participants in an EDUCAUSE-sponsored summit on IT governance, held in September 2007 in Denver, Colorado.
- Two case studies looking at IT governance development and maturation at the University of California, Berkeley, and Queensland University of Technology.

architecture, and infrastructure decisions. Across all decision types, presidents averaged input frequency of 2.52 and decision-making frequency of 2.45 on a 5-point scale (where 1 = very rarely or never and 5 = very frequently or always). Faculty averaged 2.68 for input and 2.07 for decision making. The board of trustees/regents was generally an infrequent participant, with input and decision making frequencies averaging well below 2.0.

Given the difficulty of orchestrating a variety of constituents, it might be tempting to conclude that institutions with more restrictive governance report better ITG outcomes. Yet we found just the opposite. Where frequency of participation was higher, so was IT governance maturity. Institutions that reported a greater number of frequent participations by constituents also tended to report stronger agreement that the institution articulated clear strategic priorities, that IT was aligned with business and academic goals, and that ITG could be accurately described by key participants. And where institutions had a higher overall mean ITG participation, they also tended to agree more strongly that ITG was effective overall.

IT Governance in Action: Participation and Processes

IT governance–related committees were common among respondent institutions. Two-thirds reported having an IT steering committee (ITSC) responsible for oversight of major IT policies and initiatives, and similar numbers reported the existence of administrative, teaching/learning-related, and initiative-specific committees. Virtually all ITSCs had an advisory role, and about three in four set priorities. Slender majorities had policy-setting powers and the power to adjudicate conflicts, but only about one in four respondents said the ITSC authorized funding. Agreement about ITSC effectiveness was higher where the ITSC had priority-setting and/or policy-setting powers.

If committees are the building blocks of IT governance, processes are the mortar that holds them together. Yet we found rather modest use of certain important processes in IT governance, perhaps reflecting the relatively low levels of IT maturity most respondents reported. Only about 4 in 10 institutions reported that IT governance included a process for formal review and approval of IT projects. IT governance involvement in the institutional budgetary process was somewhat more widespread: about 6 in 10 respondents reported such involvement. The use of measurement and review—important because it permits IT governance to assess how well its decisions are being carried out—was an especially weak spot. Only 40% of respondents said that their institution agreed on measurable goals for IT, and only 28% agreed that the institution regularly reviewed the effectiveness of ITG processes. As noted in the section below, all of these processes were associated with better IT governance effectiveness.

Governance Effectiveness

Respondents painted a modestly optimistic portrait of how well IT governance worked at their institutions. On a 5-point agreement scale (1 = strongly disagree, 5 = strongly agree), respondents averaged a 3.64 response to the statement that IT governance at their institutions was effective overall, and they were similarly positive about the statement that IT governance effectively balanced institutional with local/departmental needs. Despite these broadly positive evaluations, however, we found considerable variation

RECOMMENDATIONS

Process and Politics: IT Governance in Higher Education offers this dual approach of people and process to enhance IT governance maturity, performance, and effectiveness:

1. Improve ITG engagement with key institutional participants.

Our results found that IT governance tended to achieve high ratings for performance and effectiveness where key participants such as executives, deans, and department heads were knowledgeable about ITG and where constituencies were kept well informed about IT governance processes and decisions. We found, too, that institutions reporting higher ITG maturity and effectiveness also reported more, not less, participation across constituencies. As tempting as it may seem to covet governance solely within the domain of the IT shop, capitalizing on higher education's culture of inclusion can drive ITG maturity and team building.

This can be harnessed in a number of ways: recasting IT issues into the business and academic issues to which participants will best respond; actively designing ITG processes rather than just letting them happen serendipitously; and, where institutional realities permit, ITG participation both in the budget process and in formal IT project review may contribute to better ITG performance by empowering it to turn priorities into realities.

2. Develop robust ITG performance measurement and review processes.

Our outcomes suggest that personal relationships and constituent inclusiveness benefit when they are accompanied by the discipline of empirical performance measurement and regular review of ITG governance processes. We found that certain formal ITG mechanisms and processes, such as participation in the institutional budgetary process and involvement in project review, were strongly and positively associated with ITG performance and effectiveness. Our findings suggest, too, that the incorporation of measurement into IT governance is a fertile area for institutions looking for ways to improve ITG maturity and performance because it was strongly associated with clear articulation of institutional strategic priorities; with the ability to implement important IT decisions and coordinate IT personnel throughout the institution, with active design of ITG, and with overall ITG effectiveness.

among our respondents, and strong clues surfaced about steps institutions can take to pursue more effective IT governance.

For one thing, it seems clear that institutions that take IT governance seriously tend to do better at it. Institutions where respondents agreed that IT governance was actively designed, and those where they agreed that key participants could describe ITG accurately, had considerably higher ITG effectiveness means than those where respondents disagreed. Likewise, higher ITG maturity was strongly associated with higher effectiveness.

We also found a number of structural processes associated with good ITG outcomes. Institutions where IT governance was involved in the review and approval of projects, and where ITG participated in budgetary processes, reported higher average ITG effectiveness. Those where the CIO was a member of the cabinet also did slightly better, though this association was not as strong as the others reported in this section.

One of the most powerful relationships we discovered was between overall ITG effectiveness and the incorporation of measurement and review into ITG processes. We speculate that devising good performance metrics and encouraging a culture of decision making that makes use of them helps not only by improving the information that flows to IT governance but also by facilitating interaction and engagement. This would be consistent with the finding that higher levels of constituent participation were also associated with better ITG effectiveness.

CIOs and Executives

The results of our survey for non–central IT participants generally allayed fears that CIOs and their executive colleagues see IT governance in fundamentally different ways. The two groups rated overall ITG effectiveness at similar, positive levels, despite some differences in their assessments of specific factors of ITG performance. Executives did not agree quite as strongly as CIOs that IT was aligned with business goals, but still averaged a near-agree response (mean 3.87), and they gave higher average ratings to the incorporation of measurement into ITG.

Endnote

1. Peter Weill and Jeanne Ross, *IT Governance: How Top Performers Manage IT Decision Rights for Superior Results* (Boston: Harvard Business School Press, 2004), 2.