Chapter 2
Building an Effective Governance and Decision-Making Structure for Information Technology

James I. Penrod

Organizing and Managing Information Resources on Your Campus

Polley Ann McClure, Editor

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One of the frequent difficulties that a campus chief information officer (CIO) encounters results from misunderstandings between governance and management. The following questions are pertinent when thinking about these difficulties in the context of higher education organizations: What is the role of a policy committee? How does that role relate to day-to-day decision making? Is information technology (IT) policy usually derived for the institution or the central technology group? What is the role of an advisory committee? Is the role of a CIO primarily in governance or management? How obligated is a CIO to heed the advice of a committee? This chapter provides a context for appropriate answers to such questions.

Issues for General Consideration

A number of variables, in combination and usually institutional specific, have a significant impact on what constitutes good governance and decision making: general institutional characteristics, sources and levels of funding, leadership style, formality of planning, organizational culture, decision-making style, and type of IT leadership structure.
Institutional Characteristics

Is the institution private or public? Private institutions usually have a more focused set of stakeholders and thus are able to articulate a unique mission more definitively. They typically have a simpler bureaucracy and can implement decisions more quickly. These elements affect what policy is derived, how decisions are made, and who makes them.

Is the organization research-intensive, comprehensive, or a liberal arts or community college? A research-intensive campus demands an IT infrastructure that is diverse and robust. At these institutions, across-the-board standards are less likely to be in place. Teaching is likely to be emphasized at comprehensive or liberal arts colleges or universities and community colleges; thus, proportionally, more faculty may be involved in IT areas related to teaching and learning than to infrastructure development.

What is the size of the college or university? Smaller institutions are likely more unified and less diverse, making it easier to reach a consensus decision. Midsize campuses may have more resources to bring to bear on an issue than smaller ones, but they may have a simpler bureaucracy than large institutions; therefore, the blend of factors may work in their favor. Large universities benefit from the scope of disciplines and accumulated human resources that enable a reservoir of knowledge that can be meaningful when tapped.

Characteristics such as these affect the organizational climate and culture, organizational structure, and the style of management.

Sources and Level of Funding

Well-funded institutions tend to have large endowments, thereby having significant advantages over those with limited resources. Nevertheless, they have certain disadvantages with respect to some IT-related decision making. It is more difficult to gain support for significant leveraging of resources, making it harder to define and implement standards. Faculty and staff are likely to develop and jus-
tify unique solutions to IT challenges, which increases the numbers of support personnel, necessitates a greater variety of training, and complicates systems architecture, with a heavier maintenance burden.

Sources of funding have a significant impact on IT policy and practices. Good governance and management depend to some degree on a predictable stream of operational and capital funds. Institutions that must depend heavily on tuition and fees for ongoing funding do not enjoy such predictability. Similarly, state-assisted institutions with little research activity and limited endowments are vulnerable to random occurrences that cause interruptions in the steady flow of funds, which makes planning more difficult.

These factors affect the degree of risk that will be tolerated from governance and decision-making perspectives. That, in turn, affects the type of technology that is selected and supported and the level of service provided.

Leadership Style

The leadership style of the CEO and the executive officers determines many of the parameters for successful governance and decision making. To succeed, the CIO must have insight into the philosophy of all of the executive officers and work to develop processes that fit the particular environment (Zastrocky and Schlier, 2000).

The administrative model of a president with a provost as the chief academic officer may be the most frequently occurring model in mid- to large-sized universities. In research institutions, the most common CIO is a vice provost, followed by a CIO at the vice-presidential level. Many comprehensive universities follow the vice-presidential model as well (Latimer, 2000). In some models, the president or chancellor relies more on someone other than the academic leader. That person might be an executive vice president, the vice president for business and finance, or the primary fundraiser for the institution. In situations where the CIO reports to someone other than the CEO or the academic leader, he or she
has difficulty overcoming barriers with faculty and others in the academic arena. In such circumstances, the CIO must be active in the cabinet, or the likelihood of developing a sound governance and decision-making structure is doubtful.

Although often referenced, the model of the president’s using an executive team is not widespread in higher education or elsewhere (Katzenbach, 1997). Where it does occur, it provides an ideal environment for a CIO to lead the development of excellent governance and decision-making processes.

**Formality of Planning**

How an institution conducts planning affects governance and decision making. The formality of that process results in differing amounts of documentation regarding college or university plans. In some colleges and universities, planning is an informal process that results in infrequent production of a document, perhaps every five years, while in others, the process is more formal and more frequent. Whatever the institutional model, IT planning should align with the model so that IT initiatives roll up into the accomplishment of college or university goals and objectives.

A formal planning model can be adapted within an informal atmosphere if the IT governance structure is designed to fit decision-making processes. The CIO, however, must first spend time and energy to sell the concept of formalized IT planning to a critical mass of constituents, including executive officers, which ensures that the process produces results.

Many colleges and universities use a modified home-grown planning process derived by the campus planning administrator or committee rather than an accepted higher education model, such as that of Shirley (1983), Bryson (1995), or Dolence, Rowley, and Lujan (1997). In such cases, documentation exists but is not as extensive as one would find with a formal model. Either a conventional formal IT planning model or an adapted one could be used.
In organizations that do formal planning, the IT planning model is the same as that used by the institution. The plan would be one of several tactical plans that are aligned with and roll up into the institutional strategic plan. It would be developed and refreshed in accord with the defined budget cycle and have a rolling two- to five-year outlook. Most institutional plans are strategic; however, tactical plans have more detail and link operational elements directly with the strategic initiatives and then tie into the budgeting and evaluation processes.

Organizational Culture

The culture of a group is defined as “a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems” (Schein, 1997, p. 12). This translates into a far stronger pull on the average worker than suggestions or directives from the executive level of an organization. Thus, for most day-to-day activities, culture determines how things get done.

If the institutional culture is one of mistrust and if administrative silos exist, building a good IT governance and decision-making structure will be difficult. The process of establishing needed communication channels will be hard to bring about; even if it is successful initially, the culture will work to subvert them.

Typically, colleges and universities have a collegial organizational culture. The meaning of this varies but to some degree refers to the fact that diverse segments of the campus are involved and have input into decisions that will affect them. In such organizations, it is imperative for the IT governance structure to be representative and for the decision-making processes to be reasonably deliberate, enabling a wide range of IT clients to have some meaningful voice in how their services are provided.
Campuses fortunate enough to have open and trusting organizational cultures have the potential to build solid IT governance and management processes that enable decision making based on the concurrence of a critical mass rather than consensus agreement. More time may then be spent by IT managers and their clients on the questions under consideration rather than in conducting the needed politics or focusing on the care and upkeep of the process so necessary in many environments.

Decision-Making Style of the Executive Officers

Another element that affects organizational culture is the decision-making style of the president or chancellor and her or his cabinet. The cultural impact of decision making may be due to perceptions rather than how things are actually done, but that impact should not be underestimated. Positive perceptions of executive officers may influence cultural change in the long run, whereas negative perceptions immediately reinforce harmful elements in the existing culture.

Highly centralized decision-making structures are usually justified based on efficiencies, and certainly they speed up the process. The lasting effects, however, are not very efficient and are less likely to be effective in a world of both human and technology-based networks and ever increasing communication.

Some CEOs favor a distributed decision-making style with a great deal of independence from one unit to another. Such environments have IT governance and decision-making processes that usually work well for them. Typically, the central IT unit has responsibility for the basic infrastructure and campuswide facilitation of cooperative arrangements. Distributed IT units have autonomy in making local IT decisions and adhere to standards primarily where they have an interface with the basic infrastructure. The most successful institutions of this type are those with considerable resources.

A distributed collegial approach is a prevalent decision-making style of higher education CEOs. Such a method might be charac-
terized as creating a governance structure that encourages input from all affected sectors of the organization and pushes decision making to the level where it can best be made. It seeks to bring leverage across the institution where that makes sense and to delegate to the local level when that is best. The distributed collegial style enables CIOs to work with executive officers to build governance and management processes that can well serve both infrastructure development and service performance.

**Type of IT Leadership**

A majority of all colleges and universities now have IT leadership positions characterized as CIOs (Green, 2001). The span of responsibility, authority, placement within the organization, and institutional impact varies considerably from institution to institution. The nature of this position significantly affects the success of IT governance and decision-making structures.

CIOs who are executive officers of the institution have great responsibility for both leadership of a major operational unit and institutional policy development. In large universities and research-intensive settings, CIOs often are not executive officers but nevertheless are members of the president’s cabinet. Having a seat at the table is the most crucial element for a CIO to be successful in facilitating the development of effective governance and management processes. Cabinet members typically are involved in the breadth of college or university decision making and thus are in an excellent position to facilitate the development of IT governance and decision-making processes that are well aligned and fit the institutional climate and culture.

CIOs who are not members of the president’s cabinet do not have advantages that are important in leading the development of governance and decision-making processes successfully. Their ability to gain insight into the inner workings of the executive administration is limited, thereby making it more difficult to align IT and institutional decisions.
Elements of IT Governance

The governance bodies and the role definitions of decision-making groups are keys to processes that further the best use of IT in accomplishing institutional goals and objectives.

Governance Bodies

Different institutional bodies are usually involved in IT governance and decision making. It is very important to define and clarify the roles of the groups and the potential implications of their actions.

An overall IT policy and decision-making body should be defined based on the mixture of institutional characteristics discussed previously in this chapter. It should reflect the makeup of individuals who are strategically involved in institutional decision making. It should be the approval authority for all IT policy and for major IT initiatives. In addition, the members need to be charged with providing support for the implementation of decisions.

Depending on the size and type of institution, advisory committees defined to address specific needs of constituencies can be useful. The nature of their advisory status must be carefully defined. Advisory committee members can usefully provide review duties, participate in evaluation of proposals, populate work teams, and participate in drafting policy recommendations.

IT initiatives often require cross-functional teams for implementation, and often such teams remain in place to support and enhance ongoing system operation. The teams usually consist of staff from functional offices, system clients, and IT staff with responsibilities related to the specific system. Appropriately configured and properly trained cross-functional teams can be highly effective in dealing with the day-to-day complexities of operational systems.

Most campuses have special interest groups that focus on certain software or role-specific systems. They typically meet periodically to discuss related issues and share useful operational information. Incorporating such groups into the governance process can
be useful. They may contribute through their detailed operational knowledge of the system and can serve as points of influence in attaining buy-in when upgrades or changes are needed.

**Interrelationships of Various IT Groups**

The interrelationships of the governance bodies on any campus are extremely important in maintaining good decision making. The same is true of the IT units and IT positions that exist across the institution.

The roles and duties of the various governance councils and committees must be aligned for maximum effectiveness. Typically, the IT policy council is the designated decision-making body. Its focus is on establishing appropriate institution-wide policy, reviewing and authorizing major IT initiatives, approving the IT plan, providing support to remove barriers, and in general focusing on the big picture. Such a group must guard against becoming detailed decision makers, leaving that to designated IT and functional managers. Advisory committees need to understand the advisory role. This is not to say that their input is not meaningful; just the opposite is true. Their perspective must be taken into account when policy is developed and daily operational decisions are made. But they must recognize that final policy decisions come from the policy group and that managers are responsible for daily operational decision making.

In a similar fashion, it is important to align the roles and responsibilities of the various IT units that exist across the campus. The nature of this alignment will vary considerably depending on variables already delineated. The differing roles of central IT and distributed units have been discussed. Whatever the case, the better that unit roles are understood and the closer the various units work together, the more effectively IT-related institutional objectives will be accomplished.

Finally, alignment of the roles and responsibilities of IT positions across the institution is essential. A common IT career ladder
enables professionals to grow and move between distributed and centralized IT roles, broadening their perspective and enabling them ultimately to contribute more to the institution. Defining role responsibilities that complement each other enables centralized staff and distributed staff to work effectively without having to resolve turf issues. It also helps central administrators to allocate resources where they are most needed rather than to areas with the greatest political savvy or power.

A Recommended Model for IT Governance

The following general model has been employed effectively at four universities and can be effectively adapted to a variety of circumstances. The institutions were different in size, type, and funding methods, and they had different campuswide planning models, decision-making styles, and organizational cultures. Although the model was similar in all circumstances, it was adapted to fit each unique circumstance; otherwise, it would not have worked.

The Givens: Presidential Understanding and Support

Common to each environment were three factors believed to be fundamental to success. First, the CEO in each situation understood the full importance of IT to all sectors of the institution and understood that changes were needed in the IT organization and decision making for it to be best used. Second, each CEO recruited a CIO with the assurance that significant executive support would be forthcoming. Finally, the CEOs concurred with the concept of using a formal IT planning and management model linked to budget and personnel evaluation as a means of initializing the needed changes.

Type of CIO

Each CEO created a cabinet-level CIO position, and each pledged to be personally involved with the CIO in helping to design and implement the IT governance structure to make it fit the environ-
ment. The CIO position was clearly defined as fulfilling the IT policy role for the university and as the leader of the institution-wide IT strategic planning process. The CIO was involved in general institutional decision making, not just IT decisions. This is always a key element to success of the CIO.

**Definition of Policy and Decision-Making Roles**

An IT policy group made up of key decision makers across the campus was developed and given broad responsibility for deriving policy, approving major institutional IT initiatives, approving the IT plan, and making detailed recommendations to the budget committee concerning the allocation of IT resources, both central and distributed. In each situation, this was primary to success. Three IT advisory committees were established: one focused on academic issues, one on administrative issues, and one on student issues. The makeup of each was representative of the defined constituencies. The advisory committees interlocked with the policy body by having chairs of the committees on the policy group. On issues that cut across constituents, each committee gave input.

**Definition of Central and Distributed IT Unit Roles**

This definition was different on each campus, but in each case, roles were clearly delineated and communicated—required for achieving desired goals. In the most distributed environment, the role of central IT was to focus on the general IT infrastructure, provide support for administrative systems, coordinate school-based academic and research efforts where beneficial, and facilitate the IT planning process to ensure that distributed units were included. In the more universally standardized setting, leveraging hardware and software purchases across all academic and administrative units was stressed. This was done by allowing exceptions to standards only on approval by the CIO, with monitoring performed by central purchasing. In this situation, central IT also carried more responsibility for providing training for distributed staffs. The institutional IT help desk
used a centralized database to log calls for assistance, with automated routing to the appropriate central or distributed resource.

**Definition of IT Planning Style**

The same formal planning model was used in each circumstance, which linked strategic planning with management, tied objectives to allocated budget, and assigned personal responsibilities to managers, thus ensuring that most objectives were completed. In each case, the plan was refreshed annually with a three-year rolling scenario. Needed culture change for the central IT unit was addressed within the model; all distributed IT unit plans were part of the final document; and all segments of the client community were involved in the process before it was finalized (Penrod, 2003). The general methodology was much the same for all institutions, but the who, why, how, and when questions were uniquely answered to fit the overall institutional processes for each campus.

**Critical Success Factors**

The following elements are critical to success in designing and implementing an IT governance and decision-making structure on any campus:

- Ensure that there is a philosophical fit between the CIO's style of leadership and management and that of the institution's CEO.
- Ensure that the CIO position is at the cabinet level and that the incumbent establishes relationships within the group that enable a level playing field.
- Match the governance structure that is created to the decision-making style of the institution.
- Align the IT plan with institutional planning, and link it to budget, implementation processes, and unit and individual performance.
• Build processes into governance that focus on alignment, and develop mutual trust between all IT units and their clients.

• Carefully develop role definitions, and care for them over time.

• Build varied and continuous feedback loops into the governance, decision-making, and planning processes.

• Assess results from governance and planning, and report them regularly to all IT constituents.

• Remain open to adjusting processes to better fit the environment or to accommodate a changing environment, and have a methodology defined to do so.

• Educate constituents, communicating to them the vision, opportunities for involvement, annual objectives, and results.

Conclusion

Building and maintaining an IT governance structure of any kind is not easy; to design and implement one as complex as that described in this chapter is indeed difficult. If it is successful, it is primarily for two reasons: it produces reliable results for clients, and it saves time and effort otherwise spent elsewhere in the IT organization. Whatever the methodology, the objective must be to improve services to clients and support institutional mission and goals.

References


