Building Institutional Technology Alignment through IT Governance

AN IT GOVERNANCE CASE STUDY

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JUNE 2017
An IT governance initiative created consensus about IT priorities and investment, leading to greater satisfaction with the institutional technology environment.

Loyola University Chicago (Loyola) is a private research university with over 16,000 students. Its 11 schools and colleges are located on three main campuses in the Chicago area: the Lake Shore Campus is the main residential and undergraduate campus; the downtown Water Tower Campus is home to many of its professional schools and graduate-level courses; and its nearby Maywood, Illinois, campus is home to the health sciences division that includes a medical school, a nursing school, and research facilities. The separate locations and foci encourage a different cultural milieu for each campus—not unlike institutional silos—which could impact Loyola’s institution-level technology planning.

**Overview**

Susan Malisch possessed both IT leadership and governance experience when she arrived as Loyola’s vice president and CIO in 2005 and immediately put both sets of skills to work. At the time, Loyola’s technology situation was complicated, and there was a sense of dissatisfaction and disunity. “Our challenge was that technology didn’t look either like fish or fowl,” explained Thomas M. Kelly, senior vice president for Administrative Services. “The healthcare campus did not look and feel like it was getting services and structures that it wanted for healthcare. And academic affairs would say the same thing.” In addition, the healthcare campus still owned a hospital (sold in 2011) with its own technology needs, and the university was not as resource rich as it is today.

Malisch felt Loyola needed an IT governance structure in which all of the various institution technology owners could work together on technology alignment with institutional vision and create consensus about institutional technology priorities and investments. This, in turn, would foster satisfaction with the technology and a shared understanding of the priorities. That was more than a decade ago, and over time Loyola’s IT governance has flourished. “It is testament to Information Technology Services (ITS) that more administrators moved to IT governance because they saw it was the way to influence some of the university IT agenda,” stated Kelly. “Nobody wants to add themselves to groups, but the IT Steering
Executive Committee (ITESC) became the place to learn about emerging technologies and to go for greater access for or involvement in IT issues.”

**IT Governance Building Blocks**

Malisch and the ITS team built Loyola’s IT governance from scratch, without following any particular framework. She views IT governance as a set of building blocks that an institution pieces together in a unique way to meet its needs. “There is more than one way to build that building,” she explained. “A lot of the elements would be consistent, but the order in which you put them together might vary a little bit, depending upon the priority of your institution needs.” Some of Loyola’s IT governance building blocks include transparency and customer satisfaction, structure, process, communication, and retooling.

**Transparency and Customer Satisfaction**

In Loyola’s context, “customer” refers to major functional areas that consume technology services, including but not limited to individual students, faculty and staff. An initial building block was to improve the Loyola community’s understanding and satisfaction with ITS and its technology services as a precursor to future IT governance activities. ITS tackled this in two ways: service and performance excellence, and rings of excellence.

**Service and Performance Excellence**

ITS staff worked to improve customer satisfaction by training and enhancing their customer service practices—e.g., quickly helping customers or redirecting their issues to the appropriate person—to develop a service-oriented culture and create positive experiences with ITS.

**Rings of Excellence**

ITS developed the Rings of Excellence (see figure 1) to enhance the Loyola community’s understanding of ITS’s institutional scope by creating this easy-to-understand visualization. Each ring represents one of the five areas where most of ITS projects and initiatives fall. The top three rings represent customer-related areas (academic and faculty support, administrative initiatives, student technology support), while the bottom rings represent the underlying delivery platforms (infrastructure and continuous service development). “It breaks IT’s
overwhelming laundry list of projects into easily explained pieces so everyone can remember something about their specific category of interest,” stated Malisch. For example, a faculty member may be most interested in the academic and faculty support ring but is cognizant of the other ITS project areas (represented by the other rings). ITS uses the ring categories to map its initiatives to institutional goals and priorities.

Figure 1. ITS Rings of Excellence

Structure

The next building block is an IT governance structure. Loyola’s includes a decision-making steering committee supported by several subcommittees focused on technology areas that require institutional-level exposure, awareness, and involvement about their activities and direction (see figure 2).
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**ITESC Structure and Inputs**

- **IT Executive Steering Committee**
  - Chair: S. Malisch, VP & CIO
  - Charter
  - The ITESC leads a set of processes for IT governance and investment prioritization for Loyola University Chicago.

- **University Coordinating Committee**

- **External Request**

- **Recommended Technology and Initiatives**
  - **Academic Technology Committee**
    - Chair: Director, Faculty Center for Ignatian Pedagogy
    - Charter
    - The Academic Technology Committee is charged with advising on technology directions, strategies, policies, plans, and priorities important to Loyola’s goals in teaching, learning, research, and other academic objectives.

  - **Data Governance Committee**
    - Chair: Director, Institutional Research, and Sr. Data Architect Analyst
    - Charter
    - This cross-functional committee serves as a decision-making body to resolve data issues and establish interdependent data usage and definitions for the proper handling and interpretation of university data.

  - **Project Review Board**
    - Chair: Director, Systems Implementation and Consulting
    - Charter
    - The Project Review Board is charged with reviewing and prioritizing all work requests that are presented to ITS for application review, installation, development, enhancement, or customization.

  - **Architecture Review Board**
    - Chair: Director, Business and Enterprise Systems
    - Charter
    - The Architecture Review Board builds the technology roadmap that enables Loyola University Chicago to fulfill its mission and vision effectively while adapting to a changing higher education environment.

  - **Information Security Advisory Council**
    - Chair: University Information Security Officer
    - Charter
    - The Information Security Advisory Council provides guidance and oversight of the information security program, with an emphasis on risk assessment, risk prioritization, strategy, and policy issues.

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**Figure 2. Loyola’s IT governance structure**

**IT Executive Steering Committee**

Launched in 2006, the IT Executive Steering Committee (ITESC) represents the IT governance’s decision makers, who meet bimonthly. This 13-member committee is chaired by Malisch, and most members also belong to the president’s cabinet: both the academic affairs and health sciences provosts, the CFO, the COO, the chief human rights officer, the VP for student development, the SVP for advancement, and leaders from academic and faculty resources, capital projects and campus management, controller’s office, and university marketing and communications. Initially ITESC was smaller, encompassing only large systems users—e.g., ERP functional users—but expanded through the years as institutional needs and situations changed. For example, advancement and marketing and communications joined ITESC as they adopted more technology...
services and tools into their operations; student development joined in recognition of students’ growing use of technology.

Despite the participation of several cabinet members, the meetings are intentionally not cabinet appropriate. It is not a 10–15 minute briefing; rather, it is an intensive two-hour conversation focused strictly on technology. Meetings not only cover planning and project updates, solicit input, and create awareness for major technology decisions but also provide educational briefings on emerging technology that may impact Loyola in the future.

**Subcommittees**

The subcommittee structure helps reinforce an institutional technology orientation. “The subcommittee exposure to the IT governance steering committee helps foster equal footing of all the subcommittee’s priorities and activities and ensures projects don’t bump into one another,” explained Kelly. Although most of the subcommittee chairs are ITS staff, this is not a requirement. Instead, the chairs are whoever can best represent the subcommittee views and recommendations.

- **Academic Technology Committee**: The director of Loyola’s Faculty Center for Ignatian Pedagogy chairs this cross-school subcommittee, which advises on technology-based teaching, learning, research, and other academic issues.

- **Data Governance Committee**: Co-chaired by Institutional Research and ITS, this committee assists ITESC in the management of this vital university asset and in the development of a university data dictionary.

- **Project Review Board (PRB)**: The ITS director of systems implementation and consulting heads this cross-functional technology and cross-functional leadership committee—e.g., registration, enrollment management, student development, the bursar’s office—that reviews and pre-prioritizes ITS’s proposed project portfolio for ITESC’s review and approval.

- **Architecture Review Board**: This subcommittee focuses on development of Loyola’s technology roadmap with input from Technology Advisory Committees of interested Loyola community members. Committee work helps ITESC members understand planned institutional technology direction and investments. ITS’s director of business and enterprise systems heads this subcommittee.

- **Information Security Advisory Council**: Loyola’s CISO chairs this committee, which focuses on IT security strategy, policies, compliance, and
risk management, with participation from areas with an especially strong IT security and compliance interest—e.g., risk management, health sciences, academic affairs, human resources, and student development.

Loyola’s IT governance structure also reflects its culture and situation, though other institutions might organize their structure differently. For example, some institutions might include more faculty-level engagement, whereas Loyola’s academic technology issues are addressed and discussed by school-based representatives recommended by each dean on the Academic Technology Committee and also represented by ITESC’s provost and vice provost members.

Process

IT governance can address many different issues—policies, strategic plan approval, project risk management—and each institution’s needs dictate its IT governance focus. Given Loyola’s distributed campuses and extensive academic mission, project prioritization is an especially important IT governance function. ITESC prioritizes IT projects semiannually, in December for the January–June period and in June for the July–December period.

The project prioritization process evolved through the years, as ITESC members gained knowledge about institutional technology priorities, trust in Malisch and her team’s capabilities, and consistency in their IT project prioritization results. At first, ITESC members prioritized every proposed IT project and shared their scores, but over time ITESC members made some discoveries that changed the process:

- The first discovery was consistently high rankings of mandatory or required technology projects—e.g., student system enhancements or the information security program. Eventually ITESC members conceded that this set of projects would always rise to the top of the priorities and decided to automatically allocate them a high ranking and fund them, restricting the committee’s ranking efforts to projects outside this core group.

- The second discovery was recognizing the alignment between IT and institutional priorities. Committee members began to wonder why they were spending their time prioritizing IT projects when they already knew the outcomes. “This was years in the making,” explained Kelly. “It was an acknowledgment by the ITESC members that the IT project priorities set in these meetings aligned with the institutional priorities, and there was a track record of doing this with a sense of consensus.”
As a result, today the Project Review Board pre-prioritizes IT projects, which Malisch reviews with her team; tweaks based on time sensitivity, regulatory compliance, and institutional value; and supplements with other relevant IT projects as needed. She presents her IT project prioritization recommendations to the ITESC to revise or approve and to ensure alignment between those priorities and institutional needs. This expedites the process, and, once agreed on, the results are published in a Plan of Record, published on the ITS website.

Communication

Malisch believes communications is an important part of governance, to create understanding and transparency in ITS operations. Maintaining clear communication can be difficult to do effectively, however, given technology’s complexities, acronyms, and terminology. Malisch stated, “A governance structure is the perfect venue to tell the technology story, explaining why people should care and pay attention to what is happening in this area. But you have to do it right.”

Doing it right for ITS means presenting information in a way that tells that story in easily understood terms—e.g., using graphics when appropriate or categorizing information—as in the following examples:

- **T-Shirt Project Resource Planning**: When developing a project, it may be difficult initially to determine how big it will be, how many hours it will entail, and how much resourcing can be committed. So the ITS team developed project “T-shirt categories”—small, medium, large, and extra-large—that tie back to a defined range of hours. “It helps us to calibrate a project initially and have those conversations with the steering committee,” explained Malisch.

- **One-Page Major Initiative Summary**: Figure 3 illustrates ITS’s one-page summary of IT initiatives, aligned with the five major areas of the Rings of Excellence. (The parenthesized numbers refer to the number of projects/initiatives under way in that category.) “We broke our portfolio up into these five categories so that no matter whom we are talking to, they can see the relevant projects for their area,” explained Malisch.

- **Technology Scorecard**: These scorecards easily communicate Loyola’s current technology state and serve a baseline for ITESC’s members to review and agree on whether a technology is in a “healthy” state. Broken down by the five portfolio areas, each portfolio’s project receives a color-coded project rating (green, lime, yellow, orange, or red) and arrows to indicate current investment level.
• **Annual Summary**: ITS produces an annual *tri-fold report* at the end of the fiscal year, designed so the reader can easily understand Loyola’s technology performance over the past year. It’s mapped to Gartner’s categories of work—run, grow, and transform—and contains statistics about ongoing operations, identifies changes that optimized performance, and discusses transformative projects.

• **New Technology Awareness**: When pursuing a new strategic direction, ITS develops marketing collateral to educate the Loyola community. For example, ITS trademarked an “Anytime, Anywhere, Access LUC” logo used on ITS material (see bottom-left corner of figure 3) and developed a one-page brief to explain a new strategic technology direction to enable any Loyola constituent to interact with the university to conduct business/tasks 24/7, wherever they are, from any device.

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**ITS MAJOR INITIATIVES - FY17 Q1-Q2**

**Academic and Faculty Support**
- LOCUS Enhancements (6)
- Access Control & Security - Maxxess (2)
- Faculty Information System Suite Enhancements
- Online Exam Proctoring Solutions - Pilot

**Infrastructure**
- Campus Construction Initiatives (6)
- Information Security Program (7)
- LUHS/LUC/HSD Technology Program (4)
- IT Disaster Recovery (12)
- Phone System Replacement

**Administrative Initiatives**
- Online Performance Management System
- Lawson/Kronos Enhancements (3)
- Advancement Systems (6)
- Oracle 12C Database Upgrade (Required for PS Upgrade)
- Campus Labs – Extracts and Related Components
- LCFS Technology Needs for EMR, HIPAA, and PCI

**Continuous Service Development**
- Business Intelligence/Data Warehouse (5)
- Enterprise Content Management (4)
- Biology Lab Research Positions - Application and Tracking
- ITS Help Desk to Service Desk
- Establish ZOOM Technology for Conferencing

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*Figure 3. Loyola IT initiatives*
Retooling

A final building block is to retool IT governance to ensure ongoing effectiveness when an institution’s organizations and priorities change. “It is a constant improvement process once you lay the groundwork,” stated Malisch. “Don’t be so married to the initial structure that you’re afraid to change it.” Loyola’s revamped project prioritization process is a good example because it evolves and matures as the organization changes.

What It Means to Higher Education

Higher education’s mission increasingly depends on various uses of technology in teaching and learning, research, enterprise operations, and support functions. Consequently, college and university leaders need to understand technology’s value to their entire institution and develop a broad consensus—a technology framework—of how technology can be integrated to meet the institution’s future demands and to guide future technology investment. Without this shared understanding, technology usage might languish in silos—e.g., an administrative office—without the institution realizing its full value, and technology investments might lag behind the investments of institutional peers.

Achieving this broad institutional outlook can be difficult, especially if an institution is geographically dispersed, with leaders physically located on different campuses, which, in turn, can result in localized views of technology use and investment priorities. Loyola’s experience illustrates how effective IT governance can break down these institutional silos and assemble leaders throughout the university to create an institutional technology vision that aligns with Loyola’s academic and health sciences missions. It also shows how effective governance provides a means to balance cost, benefit, and value of its institutional technology investments. To achieve this vision, Malisch and her team did the following:

- Created a baseline of understanding and satisfaction across the university with ITS to build trust and willingness to participate in IT governance.
- Included all university power technology stakeholders in ITESC “so there are no executives who feel like they didn’t have a chance to participate in IT decisions,” stated Kelly. “The decision may not always go the way they wanted, but there was clearly participation.”
Developed subcommittees focused on key technology issues—e.g., academic technology and security or planning, including the Architecture and Project Review boards for planning—to help university leaders develop an institution-level understanding of technology.

Provided a framework from which ITESC members can prioritize/evaluate technology projects and investment against university priorities and values.

Included an educational component in ITESC meetings so institutional leaders can understand potential future technology requirements and plan accordingly.

Communicated technology investment performance clearly and succinctly to ITESC and the university community. For example, ITS developed the Rings of Excellence and uses the five categories consistently in its technology planning and reporting materials.

Evolved IT governance as institutional needs changed, such as the expansion of ITESC membership (as technology gained importance in new areas) and updates to the project prioritization process (to reflect growing IT/institutional alignment and ITESC’s trust in the ITS organization).

Not only did Loyola’s ITS activities help achieve balanced institutional technology investment, but they also fostered mature IT governance. Table 1 provides a checklist to help gauge an institution’s governance maturity, exemplified by Loyola’s activities.
Table 1. Loyola IT governance maturity activities

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<thead>
<tr>
<th>IT GOVERNANCE PROGRAM MATURITY ELEMENTS</th>
<th>LOYOLA UNIVERSITY ACTIVITIES</th>
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<tbody>
<tr>
<td><strong>Process</strong></td>
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<tr>
<td>Formal governance provides structure.</td>
<td>ITESC steering committee with IT issues-related subcommittees.</td>
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<tr>
<td>Process assigns clear responsibility/accountability.</td>
<td>Loyola’s IT governance defines ITESC and subcommittee charters and member roles.</td>
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<tr>
<td>Distributed IT efforts are coordinated.</td>
<td>The structure enables distributed IT input from broad institutional representation in ITESC and subcommittees, project prioritization, and Architecture Review Board.</td>
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<tr>
<td><strong>Strategic Alignment and Influence</strong></td>
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<tr>
<td>Clear institutional vision is provided for IT.</td>
<td>ITESC members represent all major institutional technology stakeholders who develop institutional IT vision.</td>
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<td>Goals for IT outcomes are aligned with institutional strategy.</td>
<td>Technology scorecards measure IT performance and investment levels.</td>
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<tr>
<td>IT governance influences decisions.</td>
<td>ITESC project prioritization and subcommittee recommendations guide IT investment and direction.</td>
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<tr>
<td><strong>IT Investment</strong></td>
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<tr>
<td>Full life-cycle costs are considered in decision making.</td>
<td>Budget proposals include CAPEX and OPEX, ongoing maintenance, and reallocation of existing investments or cost savings as appropriate.</td>
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<tr>
<td>IT investments are prioritized in alignment with institutional goals.</td>
<td>Concise ITESC project prioritization process evolved in response to IT/institution alignment.</td>
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<tr>
<td><strong>Communication and Participation</strong></td>
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<tr>
<td>Faculty, administration, and academic leadership are committed to IT governance.</td>
<td>Institutional leaders perceive ITESC as an important policy-making committee, with cross-institutional involvement throughout its structure.</td>
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<tr>
<td>Technology standards and services are visible and broadly understood.</td>
<td>ITS designs succinctly and graphically oriented communication materials; consistent branding of portfolio categories; extensive IT governance section on ITS website.</td>
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The result of all these activities is that IT governance—and ITESC in particular—“became that venue where you could sort out how big technology changes were going to affect the whole institution,” stated Kelly. “It’s a good way to lay out the options and the tradeoffs and to make that recommendation on the way forward.”
Acknowledgments

EDUCAUSE wishes to thank Thomas M. Kelly, senior vice president for Administrative Services, and Susan Malisch, vice president and CIO, of Loyola University Chicago, as well as Richard Stingel, senior IT audit consultant, University of South Carolina, for their help with this case study.

Notes

1. From comments made by Morgan Olson, executive VP, treasurer, and CFO, Arizona State University, at the 2017 Enterprise IT Summit, Phoenix, Arizona, February 28, 2017.
2. See Debbie Carraway et al., *Higher Education IT Governance Checklist*, March 2017, for a discussion of IT governance maturity elements.