IT Governance Toolkit

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This toolkit leads you through the process of understanding IT governance, the benefits that you can expect from a successful governance deployment, and the building blocks to consider as you design a governance framework. Resources are included at each step of the way.

**Getting Oriented to IT Governance**

IT governance includes the people, processes, and structures necessary to guide decision making around technology issues.\(^1\) To achieve a strategic institutional direction for technology, the scope of governance must be campus wide. An active and successful framework will uncover opportunities for efficiencies and will support funding and sourcing models that bring strategic advantages for the whole institution.\(^2\) Full participation across campus units can promote buy-in for governance processes, leading to a more credible and sustainable governance framework.

**The Need for IT Governance**

The typical college or university maintains a diverse technology landscape that has grown organically over time, often within technology silos throughout the institution. Many applications and services might be in use across the institution, sometimes several with similar or even identical functionality, certainly many with overlapping functionality. Often there is little or no technology support in the use and integration of these applications, and, consequently, many processes across campus still involve manual and redundant steps to bridge data across applications, leading to inefficiencies and inaccuracies.

This is a natural outcome of technology decisions that have been made at the department level, without the benefit of conversations, collaborations, or support across divisions or institutionally. Ironically, institutions that have been fortunate enough to afford a wide range of technology solutions have often not benefited from a holistic implementation or support model. When an application fails to meet user needs, the cure has often been to purchase a different solution, hoping for a different outcome. Over time, some institutions have amassed a terrific assortment of applications and services that still fail to meet user needs.

Despite these challenges, many institutions have made substantial progress through the efforts of talented technologists in units across campus. Most
institutions have a central technology unit accounting for a significant proportion of the campus technology employees and providing core technology services across campus. Depending on the institution, another significant number of technology services might be provided by distributed technology units, such as student affairs, learning technology services, library services, financial services, and colleges. These distributed units share the desire to provide excellent service and have been remarkably creative in addressing needs within their areas.

The operating budget for central technology traditionally represents the institutional financial support for shared services such as Internet, campus network infrastructure, enterprise-level portals and applications, e-mail and storage platforms, institutional software licenses, and centralized technology support. Conversely, the services and applications supported in distributed units address the specialized technology needs within divisions and departments. It is often very difficult to determine the technology budget totals associated with the distributed technology resources at an institution. Yet a common theme across both groups is that significant technology gaps and deficiencies exist due to lack of coordination in technology investments over an extended period.

This historical organization of technology resources results in a poor understanding of services and applications available across the institution. Both the technical organizations and the campus users frequently have no idea of the number and diversity of applications and technology services that have been purchased across the institution. As a result, users do not take advantage of technology that may be available to them, often acquiring redundant technology for their individual needs. Table 1 outlines the issues many campuses face and the solutions that effective IT governance can provide.

**Table 1. Campus needs and IT governance solutions**

<table>
<thead>
<tr>
<th>User Issue</th>
<th>IT Governance Solution</th>
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<tr>
<td>Poor understanding of services and applications available across the institution</td>
<td>Holistic view of technology services and needs and the use of resources</td>
</tr>
<tr>
<td>Duplicate or overlapping applications and services, as well as applications that don’t work and are not maintained</td>
<td>Framework that brings distributed and central IT together for collaboration, efficiency, and support across units</td>
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<tr>
<td>The need for technology platforms and support for new ways of teaching, learning, conducting research, and working</td>
<td>Collaboration among users to facilitate effective innovation</td>
</tr>
<tr>
<td>Confusion around technology service units and who is responsible for which parts</td>
<td>Manage rate of change for campus users and prioritize project work and IT resource use</td>
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<tr>
<td>Having to enter information into multiple systems</td>
<td>Interconnectedness of systems</td>
</tr>
<tr>
<td>Need for reporting on data in multiple locations</td>
<td>Support for data management and integrated data goals across campus</td>
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The lack of a cohesive governance structure often means that there is no organizational framework to facilitate technology collaboration across units. Without the benefit of organization, it is inevitable that numerous opportunities will be missed for efficiencies in decisions about technology use and support. Instead, technology directions are developed within silos, and efforts to understand broad technology needs are ad hoc at best. These conditions are evident when there is a pervasive lack of technology governance and no common technology master plan to support a strategic approach to technology.

In most cases the primary responsibility for IT governance lies with the chief information officer, with a directive to ensure an institutionally strategic approach to technology. Although the CIO is charged with leading this effort, it is critical that there be a collaborative campus effort to build the governance model to best address the current and desired state of technology for the campus.³

A governance framework should be transparent, providing visibility and access to information for all campus technology services. Campus members should be able to easily determine how to engage service units for technology requests and to learn what each unit is working on. At the highest level, campus leaders and users alike should understand the big campus initiatives and how decisions about those initiatives are made.⁴

**IT Governance Models**

Governance models vary, and they can be organized by service area or mirror existing campus governance groups.⁵ Governance committees might roll up to a single reporting committee or have separate reporting structures. The governance model needs to account for one or more executive groups that serve as executive sponsors and make decisions at the highest campus level on resources and strategies for initiatives with campus-wide impact.⁶ An executive council might have representation from the governance committees along with the highest levels of campus stakeholders. A cohesive approach at the executive governance level can help address data governance at a strategic and policy level to ensure that data are accessible and are used for metrics, operational efficiencies, and strategic advantage.⁷

Higher education governance model examples:

- [IT Governance Framework](#), Northwestern University
- [Governance](#), University of Florida
- [Governance Structure](#), Boston University
A governance model and associated committees can be designed with a variety of responsibilities and may incorporate standards and frameworks such as COBIT, ITIL, or ITSM. For instance, service portfolio management and project portfolio management are foundational to ITIL service design transition and continual service improvement. Optimization of governance processes could be guided by a COBIT maturity model, as with ITIL maturity assessments. ITSM practices create consistent approaches to managing services and support efforts to optimize campus decisions on the acquisition and use of technology resources. Finally, use of these frameworks can also facilitate best practices to support risk management and compliance programs.

Success factors in IT governance include active governance committees where all relevant changes occur within the appropriate governance committee, good stakeholder involvement, leadership support, and clear roles for the committees with responsibilities and decision-making rules.

The Work of Governance Committees

Active governance groups have meaningful, engaging work. A real pitfall is creating a governance model that does not engage stakeholders, support users, or have any real work to do or reason to meet. Traditional governance models in higher education often bring all technology conversations to multiple faculty, staff, and student groups regardless of their specific technology interests. In situations like these, faculty and staff find it hard to zero in on the technology decisions that they care about among the many that are presented to them. All parties can find this to be a bureaucratic process that stifles the ability to be innovative and make timely decisions. By creating governance committees that focus on technology service areas, the institution can empower stakeholders to be more intentional in their involvement with the technology projects and decisions that they care about.

Another pitfall is to limit governance groups to an advisory role in which they only convene periodically to consider plans from the IT units. In these cases, they have the responsibility to receive plans and comment on them but no ability to
initiate plans of their own. When committees don’t have their own work, a significant level of disengagement often becomes the norm, and technology leadership struggles to keep the campus involved. This is an important consideration when designing a governance model that will keep engagement at a meaningful level for the campus.

Governance committees often begin with project portfolio management as their main work. When done well, project portfolio management oversight can ensure that new services aren’t implemented without the involvement of IT governance. Committees can also provide input for resource management, policies, and risk management programs. These areas of responsibility (see table 2) foster inclusive dialogue and collaborative decisions that meet stakeholder needs while providing a solid framework for broad campus involvement in governance decisions about technology.

Table 2. Responsibility areas for governance committees

<table>
<thead>
<tr>
<th>Implement project portfolio management to:</th>
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<tr>
<td>Create holistic view of requests, balance institutional needs, and prioritize projects based on the institutional strategic plan.</td>
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<tr>
<td>Ensure strategic use of technology resources and account for total cost of ownership for new services.</td>
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<tr>
<td>Ensure security, compliance, and infrastructure alignment.</td>
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<tr>
<td>Help plan the timing and rate of change impacting users.</td>
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<tr>
<td>Help projects achieve results by strengthening business cases, alignment, and collaborations that might be needed for success.</td>
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<tr>
<th>Implement resource management to:</th>
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<tr>
<td>Provide shared governance involvement in technology financial decisions affecting campus and allow governance group to advocate for campus technology funding needs.</td>
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<tr>
<td>Provide advice on cost structures.</td>
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<tr>
<td>Organize cost sharing for services or projects and/or chargeback models.</td>
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<tr>
<td>Determine where applications and services need support resources attached to them.</td>
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<tr>
<th>Include policy and standards responsibilities to:</th>
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<tr>
<td>Address data stewardship and data management goals.</td>
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<tr>
<td>Support data strategy and shared governance for data management.</td>
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<tr>
<td>Determine preference for buy/build and cloud/on-premise solutions, as well as standard/customized applications, in alignment with strategic plan.</td>
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<tr>
<td>Support infrastructure and security standards (i.e., data center standards, federated identity management for application access, security standards, etc.).</td>
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<tr>
<th>Include risk management and compliance responsibilities to:</th>
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<tr>
<td>Help guide IT risk management.</td>
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<tr>
<td>Support security and compliance considerations in technology services and solutions.</td>
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Governance Committee Implementation

As you begin discussions with stakeholders about IT governance, it is a good idea to also launch a communication plan for the times that you will want to solicit input from and update the campus on the model as it is being developed. An initial communication informs the campus of the goals and key stakeholders involved in the process and perhaps asks for early input.

The full scope of an IT governance initiative can seem overwhelming. Consider phased approaches and pilots to break down the project into manageable chunks. You may want to solicit ideas for how to do this as part of your vetting and communication steps. The benefits of a phased approach include the ability to focus support on one or two initial committees and the ability to get key processes working consistently before adding additional responsibilities. Convene an inclusive design team to create the governance model. Create multiple opportunities to share the model and solicit input as you move from early concept to draft and a final design.

Communication Plan

As the governance design progresses, a forum could be held on the draft model. An open campus forum allows an inclusive IT governance design team to interact with participants to explain the draft governance framework, get additional input, and solicit suggestions for committee participants. An excellent format is to have a short presentation on the framework at the beginning of the forum and then allow participants to wander among stations staffed by members of your design team to provide feedback on key elements of the design or committee representations. This will foster individual conversations, which are often the best source of candid feedback. Consider setting up an easel with a stack of Post-it Notes at each station to facilitate feedback from participants. Finally, ensure that you document the feedback from all groups, find a way to distill this, and share it with the campus community.

As you settle on your final model, you may want to vet the plan with existing campus governance groups such as the cabinet, dean’s council, chairs council, faculty senate, staff senate, and student government. You can create a permanent bridge to these groups by including representation within the IT governance committees where appropriate. Ensure you have their support for the design and/or that you incorporate adjustments that may be needed as part of this
vetting. Ask for suggestions for staffing the committees and how they want to receive communications about the committee work.

Finally, prepare a general campus announcement to ensure that all campus groups know what will occur and why and how it will change current technology processes.

Committee Support

Plan for administrative support for your governance committees and have support staff attend all governance meetings as you kick off the process. They will be important in helping navigate questions and providing resources that ensure the committees are successful in their work. Support resources are also important for collecting information on the committee work and ensuring that it is communicated to the campus. Project management, communications, and strategic planning teams within IT are a great place to draw resources to support governance. Their skills will help provide a consistent look and feel to communications processes. For instance, these teams might be responsible for setting up collaborative working environments for committees, allowing campus members to know who is on the committees and how to initiate conversation and project requests for technology services under the governance committee. They can publish committee work, providing visibility into the future roadmaps (the technology changes that are planned, whom they will impact, and when they will be deployed) for each governance committee as well as collectively across all committees.

Committee Members and Responsibilities

Committee members must be selected from stakeholders who can provide direction and coordination in the use of the technology services across the campus. Membership should be representative of the campus population and chosen from among representatives who have the authority to make decisions. Generally, members are selected to represent technology owners, service stakeholders, academic and research units of varying size, administrative units of varying size, and the student body. The role of a committee member is to be an active participant, providing insight into the technology views and needs of the constituents they represent along with a balanced institutional perspective. They must be capable of working across campus organizational divisions with fellow committee members to recommend services and technologies that support the campus mission and strategic directions.
To carry out governance activities, the committees need a charter with a common set of operating procedures and tools. A charter should incorporate success factors such as good stakeholder involvement, leadership support, and clear roles for the committees, with responsibilities and decision-making rules. A charter should outline goals, responsibilities, and accountability for the work of the governance committees.

If the governance committees roll up to an executive committee or council, the charter should address how the executive committee interacts with the individual governance committees and how it works to achieve a strategic approach to initiatives with a campus-wide impact. This executive level coordination can lead to a published roadmap from the governance committees so that the campus knows what technology is in the pipeline, who it will impact, and when it is planned for deployment.

**Governance Model Assessment**

It is important to build in an assessment cycle for IT governance. IT governance is a dynamic endeavor that can build on initial success. It is helpful to begin with a scope that is achievable for the campus and to set periodic reviews, looking for evidence of whether the model is successfully meeting the initial goals. Inevitably, modifications will be needed to address governance design or processes that did not translate well during implementation. Moreover, the governance model may occasionally require adaptation to meet the changing needs of the campus. As the campus becomes comfortable with the governance model, it will be ready to move to additional levels of maturity with processes. These are some examples of data that can be used in that assessment process:

- Benchmark against peers with [EDUCAUSE Core Data Service (CDS) data](https://cds.educause.edu), including the maturity index areas for service management and governance, risk, and compliance maturity.

- Use [EDUCAUSE Technology Research in the Academic Community (ETRAC)](https://www.educause.edu/eduroam) resources to perform student and faculty satisfaction with technology surveys.

- Regularly check the EDUCAUSE [IT Governance, Risk, and Compliance Program](https://www.educause.edu/resources/it-governance-risk-and-compliance) pages for new resources.
Creating a Work Plan for IT Governance

**Plan** your process and determine steps, resources, barriers to address, risks, involvement, support, etc.

- Step 1: Share the “Getting Oriented to IT Governance” section above with stakeholders and those who will help design the governance model.
- Step 2: Share reading materials to help stakeholders understand governance goals and value proposition.
- Step 3: Begin campus communications about IT governance and collect input from campus groups.
- Step 4: Create your own list of what your campus wants from IT governance.
  - Use the “IT Governance Questions and Needs Checklist” below to determine what you need in your governance design. Be sure to include stakeholder and other campus group needs.
  - Review the EDUCAUSE Higher Education IT Governance Checklist for additional considerations and governance options.
  - Review the EDUCAUSE maturity indices for IT service management and for governance, risk, and compliance to identify any additional considerations and governance options.

**Design** your governance model with a representative group of stakeholders as well as technology service owners. Talk with them about their needs and how they will be met with the design.

- Step 5: Use notes from reading/checklists and campus input to design committee structure.

**Check** your governance model against what you wanted to accomplish with governance. Do you see where goals will be met? Do gaps remain? Finalize the goals and publish them as part of the governance communication plan.

**Implement** your plan with flexibility, agility, collaboration, and transparency. Solicit ideas for who should be part of the committees. If you are considering a phased rollout, seek input on potential pilot committees and what governance responsibilities should be part of the initial phase.

- Step 6: Outline steps for implementing your governance plan.
- Step 7: Consider setting up one or two of the committees as pilots, using the opportunity to refine the plan and process for the remaining committees.
Assess the effectiveness of your IT governance model and processes periodically. Keep your checklist to determine whether your model is meeting the needs and goals you outlined in the design and to continually optimize your governance program as it evolves in its level of maturity. You can also benchmark against peers with EDUCAUSE Core Data Service (CDS) data.

- Step 8: Are you meeting governance goals? Are the committee and campus involved? Is governance work getting done?

Resources: IT Governance Questions and Needs Checklist

Why do you need governance? (freeform thoughts on overarching questions)

- What goals are you trying to achieve or what issues are you attempting to address?
- What do you hope will stop happening after implementing governance? What needs to be done that is not done now?

Who are your stakeholders? (notes to help in design/structure)

- Do you have support from the institutional president and senior leadership?
- Do you have support from stakeholders such as business process owners and service owners?
- What role do stakeholders have in your governance model?
- Does your governance model foster active stakeholder involvement?
- How can the stakeholders help achieve your governance goals?

How will you model your governance program? (notes to help in design/structure)

- How will IT governance fit into and inform established institutional governance processes?
- What IT decision-making processes are already in place, and how will they fit into a more holistic IT governance model?
- How can you leverage your existing organizational structure (e.g., centralized versus decentralized IT) via governance to take advantage of opportunities for aggregation, resource sharing, and broader planning for increased efficiencies?
- How will your governance model reach across campus silos?
- Do you have a campus-wide technology service catalog? How will it play into your governance model? Can it be easily mapped to your governance model?
• Will your governance model be organized by technology service areas (academic, research, administrative, etc.)?

• Will the governance committees be the entry point for users to request changes or new services?

• How will foundational technology considerations such as campus technology architecture and infrastructure and information security standards be represented in the governance model?

• Will governance committees have separate reporting structures to institutional leadership or roll up to a single reporting committee?

• How will the governance model support decision making at the highest campus level on resources and strategies for initiatives with campus-wide impact?

• Will the governance model address data resources at a strategy and policy level to ensure that data are accessible and used for metrics, operational efficiencies, and strategic advantage?

• Will the model ensure that technology service changes occur within the appropriate governance committee?

• Does the model support stakeholder involvement, leadership support, and clear roles for the committees, with responsibilities and decision-making rules?

• Will the governance model incorporate frameworks such as COBIT, ITIL, or ITSM?

• Will the governance model incorporate maturity assessments to take advantage of optimization of processes over time?

Consider responsibility areas that can be part of the work of governance committees to help meet your strategic objectives for IT governance. Which sets of committee responsibilities will help achieve the needs identified above?

**Project Portfolio Management:** Provide a process to review, prioritize, and oversee projects that impact the service areas of a governance committee.

• Example responsibilities:
  - Ensure major implementations fall under governance.
  - Provide holistic view of requests and balance institutional needs.
  - Ensure projects support the institutional strategic plan and the strategic use of IT resources.
  - Consider the total cost of ownership for new technologies.
Ensure security, compliance, and infrastructure alignment.
Help address timing and rate of change hitting campus users.
Provide advice on technology change, people impacted, reengineering, or business process review needed.
Help projects achieve results by strengthening business cases, alignment, and collaborations that might be needed for success.

- Successful implementation considerations:
  - A project management framework and process for projects to be brought to governance
  - Information from central/distributed IT on technology resources needed for projects, as well as resources available to address projects that are at the top of the prioritization queue
  - Assessment process for projects (i.e., vetting by security and infrastructure for technology fit/best practice, checking on best practice for process changes with technology to avoid customizations, checking for data integrations needed with other systems, checking for how data will be available from new system and integrated into institutional data warehouse/BI platforms)
  - Prioritization checklist (including, but not limited to...):
    - Mission or strategic objective match
    - Cost/resources needed
    - Technology risk, change management risk
    - People impacted
    - Amount of reengineering required

- One-page project assessment sheet with goal to check on business case, strengthen alignment, and facilitate collaboration needed for project success

**Resource Management:** Provide shared governance involvement in technology financial decisions affecting campus.

- Example responsibilities:
  - Act as a resource to address budget for technology services and advocate for campus technology funding needs.
  - Provide advice on cost structures and/or chargeback models.
  - Provide advice on cost-sharing or cost-allocation models.
• Successful implementation considerations:
  ➢ Collaboration with financial team in ITS and/or business units
  ➢ Use of CDS data to compare institution to peers, Carnegie class, etc., for various elements and/or using these benchmarks as goals to support strategic mission and plan goals, such as efficiency, staying current with transformational investment in IT, meeting service needs with staffing levels, etc.

Policies and Standards: Recommend or vet policy impacting portfolio of services.
• Example responsibilities:
  ➢ Provide shared governance on policy, standards, and process development for use of campus technology.
  ➢ Provide input on sourcing and/or buy-versus-build strategies and technology purchase policies.
  ➢ Assist in development and ensure the use of technology architecture standards, data stewardship, and data management plans.

• Successful implementation considerations:
  ➢ Role delineation for the committee in terms of originating, recommending, or vetting policy
  ➢ Cross-pollination across committees, architecture, and infrastructure unit(s)
  ➢ Possible inclusion of data strategy for business intelligence, business intelligence maturity assessment, support for data transparency, and the correct use of data
  ➢ Possible preference for buy/build and cloud/on-premise solutions, as well as standard/customized applications in alignment with strategic plan
  ➢ Possible inclusion of infrastructure standards (i.e., federated identity management, data center standards)

Risk Management and Compliance: Provide input on risk management and support compliance programs.
• Example responsibilities:
  ➢ Help guide IT risk management program and processes.
  ➢ Ensure that information security and compliance considerations are considered through service life cycle.
Successful implementation considerations:

- Cross-pollination across committees and/or information security and compliance entities on campus

Resources: IT Governance Reading List

These materials provide an overview of technology governance, the importance of governance to technology strategy, and examples of successful governance work.

Overview of IT Governance

- Debbie Carraway et al., Higher Education IT Governance Checklist, IT GRC checklist (Louisville, CO: EDUCAUSE, March 2017).

Strategic and Stakeholder Reading

- Eden Dahlstrom, with contributions from Melissa Woo, Institutional Practices and Faculty Perspectives on Research Computing in Higher Education, research report (Louisville, CO: ECAR, December 2014).

Implementations and Case Studies

- Edward Aractingi et al., Demonstrating Value through IT Service Management in Higher Education, working group paper (Louisville, CO: ECAR, August 31, 2016).
- Debbie Carraway, Supporting Innovation through IT Governance, research bulletin (Louisville, CO: ECAR, April 20, 2016).
Notes


11. Debbie Carraway, Supporting Innovation through IT Governance, research bulletin (Louisville, CO: ECAR, April 20, 2016).


About the Author

Cathy Bates has 30 years of experience dedicated to higher education with a strong focus on strategic planning and initiatives that transform academic, administrative, and research capabilities. She has held CISO and CIO roles at higher education institutions and is currently a senior consultant at Vantage Technology Consulting Group and longtime contributor to EDUCAUSE.

About EDUCAUSE

EDUCAUSE is a higher education technology association and the largest community of IT leaders and professionals committed to advancing higher education. Technology, IT roles and responsibilities, and higher education are dynamically changing. Formed in 1998, EDUCAUSE supports those who lead, manage, and use information technology to anticipate and adapt to these changes, advancing strategic IT decision making at every level within higher education. A global nonprofit organization, EDUCAUSE members include U.S. and international higher education institutions, corporations, not-for-profit organizations, and K–12 institutions. With a community of more than 85,000 individual participants located around the world, EDUCAUSE encourages diversity in perspective, opinion, and representation.

About the EDUCAUSE IT GRC Program and Resources

The EDUCAUSE IT GRC program provides resources that help you define and implement IT governance, risk, and compliance activities on your campus. Learn more and view additional resources on the IT GRC website.

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