

TCU's Information Technology Plan

Within the Context of the Vision in Action Strategic Planning

I. Introduction

A. TCU IT Planning Review

TCU has a long history of planned and innovative deployment, use and support of information technology (IT). Although several campus units are involved in various aspects of IT support, Information Services (IS) is the primary organization that provides campus-wide resources and services to support teaching, learning, research, service, and operations at TCU. The development and implementation of IS projects and services are guided by the Computing and Technology Committee (CATC), an IS advisory body that is also responsible for developing TCU's Technology Plan.

During Kaludis Consulting's work with TCU and its Vision In Action (VIA) strategic planning process, it became clear that information technology would play a major role in achieving future TCU goals and objectives. In the interest of time, the VIA Steering Committee decided to use the ongoing TCU IT planning process to support VIA. Therefore, Kaludis Consulting reviewed the current IT plan and integrated strategic issues raised therein with results of the VIA process.

Kaludis Consulting examined the 2004 TCU Technology Planning document, previous plans and material supplied by Information Services, and some of the VIA subcommittee reports. They also held discussions with a number of representatives of the TCU community, including members of the CATC. This work was done as a part of the firm's commitment to the University's VIA project.

The consultants also examined the TCU Technology Plan in relation to the annual EDUCAUSE survey of current IT issues in higher education¹. EDUCAUSE is the leading higher education information technology association, whose membership is composed of nearly 2000 colleges, universities, and education organizations. Each year EDUCAUSE takes the pulse of technology through a survey of its member institutions. Over time, this list of issues has broadened from a concentration on the funding, management and maintenance of the physical information technology environment and institutional infrastructure to include concerns for areas of service, such as assisting faculty in integrating technology into teaching and research activities and strategic planning for information technology.

B. TCU IT Progress

The TCU Information Services (IS) organization manages and provides essential resources and support for the University's information technology infrastructure, including network and communications capabilities, and the administrative systems that help the institution to perform

¹ Donald Z. Spicer, Peter B. DeBlois and the EDUCAUSE Current issues Committee. "Fifth Annual EDUCAUSE Survey Identifies Current IT Issues: Funding IT remains number one, while security and identify management hit budgets hard". *EDUCAUSE Quarterly*, Number 2, 2004. Page 10.

its daily business functions. The University has a substantial base of hardware, software, and network resources that includes centralized computers/servers, PCs, and a number of computer labs and electronic classrooms. The University provides students, faculty, and staff with access to e-mail and the Internet, as well as to a wide variety of digital information resources through the Library. In addition, the IS organization assists faculty, students, and staff in using computing technology, and works with other units of the institution to expand these services. In recent years, TCU has improved its administrative systems, expanded academic technologies to support on-line education, extended information security capabilities, and worked jointly with the University Library and other technology-related organizational units to support teaching, research, learning and service activities across all of TCU.

Recent changes and improvements in TCU's information service environment were noted in the *TCU Technology Plan 2002* (May 2002) and include:

[TCU] noticeably improved the technologies on campus in the last 4 to 5 years, and has included:

- Substantial improvement of administrative software systems
- Implementation of a program to regularly replace campus desktop computers, network components, and servers including standard site licensed workstation software
- Extension of the campus Ethernet backbone to all buildings and residence halls on campus and improvement of TCU's connection to the world (including additional T1 lines and links to Internet II)
- Experimentation and implementation of distance learning methodologies with the use of eCollege
- Increase in the number of department-specific and public computer labs across campus
- Establishment of the Center for Effective Teaching providing instructional technology support and training for faculty
- Development of a web presence for TCU and establishment of a web master and policies for university web development
- Wiring of all residence halls, providing a port per pillow for data, voice and video
- Provision of data ports in 90% of the university classrooms
- Expanded University ID Card services to include building access and charging book store purchases, laundry, copying, and vending to student accounts.

Since that 2002 report was created, the IS organization has completed a number of other projects that have enhanced the environment further. For example, a wireless network was installed in the Library and wireless laptop computers made available for checkout by students to use on that network. One of the most significant collaborative efforts has been the successful operation of the Information Commons, located in the Library and operated jointly by the Information Services and the University Library. In addition, working with such units as the Library, the Center for Instructional Technology (CIT), and the Center for Teaching Excellence (CTE), the Information Services organization has continued to identify ways to use information technology at TCU that serve its constituents better.

C. TCU IT Planning

The Computer and Technology Committee (CATC) is composed of faculty representatives and staff professionals from a number of different units. The members of this group have worked hard to review technology requirements and accomplishments and to define future priorities for TCU. The committee has succeeded in gathering a wide range of views and has attempted to incorporate the needs of many University constituencies into a prioritized list. CATC conducted on-line surveys that gathered the views of faculty, staff and students, and invited representatives of the campus community to contribute to the technology planning process. The result of these efforts was a list of issues describing what the University's technology-related needs may be, as categorized by the committee. These diverse requirements are reflected in the planning document and include entries such as the needs of the Center for Teaching Excellence and the need to establish an institutional digital repository. These entries show the Committee's effort to present a more inclusive plan, representing more than just the IS organization, though much of the work of this committee supports the on-going operations of TCU's Information Services unit.

The 2004 TCU Technology Planning Document has a time horizon of about three years. It is difficult to plan technology beyond three years, but the University continues to anticipate future technology challenges and strategies. This plan has defined several major foci for the current University technology environment, including: spam control, network security, technology funding, web content management, data warehousing, and wireless networking. At the beginning of the planning document, the committee states that the plan is "a list of prioritized needs without the long accompanying justification that was present in the first two plans". This document represents significant work on the part of the Committee.

II. Findings and Recommendations

A. Establishing a Context for IT Planning

The consultants used the 2004 EDUCAUSE current issues survey as a basis of comparison for examining strategies included in the 2004 TCU Technology Planning Document. They mapped the report to the top ten IT issues identified in the survey. In addition, they reviewed the prioritized needs in the context of the VIA subcommittee reports. The table used to perform this analysis is included in this document as [Attachment 1](#). The technology related concerns for TCU are similar to those identified in the 2004 EDUCAUSE survey.

From a national perspective, one of the most important elements in the top ten issues was the need for strategic planning for IT. Strategic information and technology planning creates an institutional view of the information and technology needs of the University, and provides the link to the University's vision, mission, and strategies. Strategic IT planning is most effective when it can draw on institutional planning goals and objectives. With an institution-wide IT plan, the University can make better decisions on what technologies are most suitable to its needs, determine the potential impact on institutional resources, and consider the specific roles for information and technology. TCU's VIA effort provides that strategic framework.

The charter of the current IT planning committee (CATC) does not specifically extend to strategy plan development; its responsibility is to provide a prioritized framework that links

campus requirements, IS capacities and budget opportunities. The Committee solicited input, prepared the plan, and presented the information to the University leadership and campus community. The 2004 TCU Technology Planning document is primarily tactical and operational in nature, and although there are strategic elements, it is not a strategic information technology plan that specifically addresses high-level institutional priorities, goals, and initiatives. This IT planning work preceded TCU's VIA efforts thus CATC lacked a formal means to align its recommendations with the broader institutional strategies and plans being developed in the VIA planning process. This gap can be closed in future TCU information technology planning.

The current TCU IT plan is a list of important needs as determined by CATC and defines specific programmatic and task-oriented information technology needs for the University. However, it does not specifically address longer term, "big picture" issues; and most of the items contained in the list have a short or medium-term time horizon. This document is, however, linked to previous technology plans and represents an effort by the Committee to review progress on previous plans and adjust objectives, as necessary. The fact that the committee views its work as a continuous process is a positive step toward effective planning. Again, due to timing and a lack of previous institutional strategic priorities, the document does not contain elements that are integrated with other institutional planning activities and VIA strategies.

B. IT Planning and Vision In Action (VIA)

The reports of the VIA subcommittees suggest a number of potential strategies for the advancement of TCU, and have significant implications for information technology planning, projects, resources, and support. They include a range of suggestions covering topics from implementation of quality standards in all aspects of the University, to enhancing the living and learning environment of the institution. Further, these recommendations emphasize the concern for the undergraduate student experience, as well as for improvements in graduate programs. The VIA reports also stress the value of interdisciplinary and multidisciplinary programs and the importance of increasing intra-institutional collaboration and synergy (undergraduate/ graduate; across units; Centers/Institutes). A significant outcome of the VIA process will be an integrated set of strategies across the University that optimizes the distribution and use of its resources.

A number of the objectives in TCU's IT planning document actually match VIA-defined institutional issues. Although the TCU technology planning document did not define strategies, it did present "Funding IT" as a major focus and included two items in the prioritized list to support this focus. IT funding was also the number one issue in the EDUCAUSE survey. CATC's IT issues reflect the strategic directions emanating from the VIA process, specifically:

- Create a method to coordinate technology budget development across the University.
- Apply digital information and technology to achieve improvements in efficiency and cost-effectiveness of university business processes.
- Design ways to redistribute or acquire additional resources for digital information and technology and to improve allocation of those resources.

TCU's IT planning objectives also support a number of other VIA recommendations and address the broad themes covering processes for management and allocation of resources and building "excellence" into the visions and management of the TCU strategic agenda.

C. Recommendations

In identifying VIA-related issues within TCU's digital information and technology environment, the consultants developed the following recommendations:

Recommendation #1: Create a more comprehensive definition and view of TCU's digital information and technology environment.

The term, "technology" encompasses a broad array of meanings. Definitions range from the traditional use of computers by individuals to innovative engineering applications, such as GM's Hy-wire vehicle with videogame-style controls. Computers, communications tools, and related equipment are the core of the technology environment in universities and colleges. However, knowledge, information and data, primarily in digital formats flow through, are managed using, or are accessible by way of a variety of technologies. Data and information have become the fuel that drives all types of activities, and information technology is the backbone that helps the organization to manage and maintain them. Further, there has been a convergence of video and audio technologies, as well as many different types of specialized devices, with computing equipment and voice/data networks. In this integrated environment, the University must plan to address the funding, support, management and interrelationships of all of these digitally-based elements in a coordinated manner.

Information and learning technologies have become increasingly pervasive in higher education in the academic and information environments. Similarly, in the administrative arena, the use of various technologies and the capture and manipulation of information and data in digital forms has become the norm. The intersection among those services and materials traditionally provided by a library organization, multi-media services, and various computer and telecommunications functions within the institution has blurred traditional lines of service and support. Further, the introduction of new technologies or different uses for existing technologies creates more confusion for the support and management of these resources.

The information and technology environment of TCU is fragmented, due largely to the fact that technology use has grown in scope and volume. There is some integration of information and technology, for example the Information Commons; but cooperative activities are based largely on personal relationships among leaders and individuals in the various campus information and technology organizations. However, there is no commonly understood campus definition of "technology" and no shared view of the convergence of digital information and technology. Yet, these digital elements are present within the University for one purpose – to support the teaching, learning, and research activities of the University seamlessly, and provide the services and management that make those activities possible.

Consequently, it is important that TCU re-define "technology" to embrace a wider range of elements (or else autonomous or self-serving definitions will arise). The new definition will combine the conventional IT environment with the integration dimensions of the digital world, including the management of information (sources, uses, preservation and protection, intellectual property issues, etc.), as well as multi-media hardware, software, transmissions, and content. In addition, a different definition of "technology" provides a means for TCU to integrate new elements of the digital economy as they emerge.

Recommendation #2: Develop a new strategic digital information and technology plan and planning process.

As TCU refines its overall strategic direction through the VIA process, technology planning must be integrated through a broader institution-wide process. For example, the current technology plan focuses minimally on the teaching and learning environment, although it does describe infrastructure needs that support those activities. One example is the major focus on more wireless networking, which is supportive of the institutional VIA strategies related to student success. Similarly, one of the prioritized needs recommends developing a faculty lab, a concept that is highly supportive of the academic quality initiatives identified in the VIA recommendations and that TCU may pursue. These technology priorities have been recognized prior to or tangentially to the current strategic planning process, but they often coincide with the needs expressed in some of the VIA strategic recommendations.

The environment for information and technology planning at TCU will become more complex, requiring increased cooperation between and integration of requirements among organizational units that have traditionally functioned independently. The term, convergence has been applied to the intersection of information, communications, computing, and media technologies. As these components become more interrelated, functionality has increased, costs have declined, sizes have shrunk, and quality has improved. These changes include the introduction of portable communications devices like the iPod and other handheld devices that replace conventional telephones and handle the capture, storage and transmission of voice, data and video. In addition they provide capabilities that allow students, researchers or others to work collaboratively in a high-speed network environment such as Internet2 and create a means by which they can see and hear each other and exchange large data files.

To manage its information and technology resources in this rapidly changing environment, TCU will need to expand the role of IT planning to address the convergence and to ensure that the management of digital information and technology is aligned with institutional strategies. Examples of potential digital information and technology integration strategies may include:

- Develop an integrated strategic plan for IT that is aligned with and supports TCU's institutional strategy, mission and vision.
- Support academic program review and assessment.
- Provide for enhanced learning opportunities through use of technology.
- Invest in common technology that permits TCU to pursue the digital accumulation of data.
- Increase learning and information sharing opportunities for faculty.
- Assist in organization and management of TCU's intellectual property

To initiate development of the strategic plan, TCU will need to create a vision statement for information and technology within the University. The IT planning process should mirror the VIA activities, i.e., determining the potential strategic questions, identifying any existing strategies and current needs, documenting challenges and opportunities, examining the environment through input from a wide variety of organizational sources, and developing a set of options and strategic recommendations based on analysis of all of the information sources.

Recommendation #3: Create a means to coordinate TCU's IT and related functions within the context of an integrated digital information and technology plan.

As a new definition for the identification and management of digital information and technology is adopted and a method to conduct strategic planning for these assets is implemented, TCU will need to develop a new management and governance structure for digital information and technology that is aligned with the strategies, structures and management behaviors of the University. The IS/IT arena has traditionally been treated as a separate entity, primarily focused on the maintenance of and support for the technical hardware, software and communications infrastructure. Further, in most academic institutions, as is presently the situation at TCU, IS has been set apart from the departmental and program units of the institution that support academic activities.

Whether the University adopts some form of the VIA subcommittee's recommendation or not, planning for and management of institutional digital information and technology cannot be performed as a series of independent tasks in various parts of the organization; rather it must be treated as a component of high-level institutional management. This new approach to the management of digital and related assets will provide a means to develop and maintain the information and technology strategies, including defining the role and impact of digital information and technology within the University. At a senior management level, TCU will need to develop means to determine any constraints and set performance measures. In addition, the more senior parts of the structure will understand levels of risk and manage the University's investment accordingly. In addition, this structure will provide a means to achieve the inter-organizational coordination and integration of activities across different units of the University. Further, this structure will hold the authority to determine policy and procedures for management of tangible and intangible digital assets.

From an organizational perspective, redefining the information and technology management environment will lead to a revision of the committee structure for planning and management of these assets. New definitions of and roles for involvement in the process will be a part of this restructuring. In addition, the University will establish standards for information and technology that will influence the distribution of resources. These steps will help TCU to achieve its strategic objectives for academic quality and performance. In concert with organizational changes that will result from the VIA process, and as change occurs in the technologies used on campus, new practices and policies for the management and use of those technologies will be implemented. Improving coordination across these areas will allow the University to apply the same management principles to the planning, administration and control of its digital information and technology assets that it uses to operate the overall enterprise.

The information and technology environment will be included in institutional process change, so that there will be increased coordination of IT acquisition management and support across the institution, and improved allocation of IT resources. With adequate staffing and funding, IT will continue to improve its support for University academic programs. It will make improvements in administrative systems through such projects as implementing a data warehouse. TCU will need to make digital information, systems, and support more integrated, responsive, and available. The success of TCU's IT strategy will be determined by its contribution to the achievement of the University mission and relevance to the overall strategic agenda.

III. Conclusion

The uses of digital technologies in colleges and universities have grown tremendously in recent years. Information and technology have become intertwined with nearly every institutional function. As a consequence, information and technology must be viewed and managed as institutional assets. Comprehensive, campus-wide information and technology planning will benefit the University by generating a shared, institutional vision for information and technology.

Once it has initiated strategic planning for information and technology, TCU will be able to define integrated strategies that are aligned with the University mission and goals. A number of sample strategy statements to support the digital information and technology environment are included as Attachment 2. As a result of the planning process, the University will be able to determine optimal distribution of institutional information and technology resources, identify ways to reduce or minimize costs, and support enhancements in institutional performance. This process will help TCU to make more proactive decisions on its investments in and management of information and technology.

In addition, the University can increase its competitive position through thoughtful application of information technology. Digital information and technology will contribute to meeting the TCU undergraduate promise and improving the University experience through such features as wireless networking, web content management, and increased access to information of various kinds. Among the elements of information technology that will help the University to live up to its promise, will be expanded availability of a variety of technologies to support classrooms, as well as labs. Students living in University residences will find more access to and support for use of technology. Information and technology will play a significant role in TCU's ability to achieve its strategic objectives.

As much as TCU's information technology environment is expanding, it is also converging in terms of planning and deployment challenges, resource and staffing priorities, budget issues, and integrated support requirements. Therefore, TCU's IT planning structure and focus should address this convergence by building on past successes; targeting VIA goals and objectives; and leveraging integration, innovation, and service opportunities.

Attachment 1**TCU – EDUCAUSE Issue Comparison**

The 2004 EDUCAUSE current issues survey, referenced on page 1 of this report, was used as a comparative tool for reviewing TCU's 2004 Technology Planning document. The table below maps TCU's IT Plan to the top ten IT issues in the survey. The first three columns contain the EDUCAUSE issues and the TCU foci and prioritized needs related to each of the issue areas. The third column classifies each of the TCU prioritized needs and provides a means to think about them within a strategic information and technology planning framework. This national perspective provides a basis for determining whether or not plans are appropriately focused in relation to emerging trends.

- a. Issues listed in the EDUCAUSE 2004 Survey Results, Comparison of Top-Ten issues for All Questions in response to the question of need for strategic success (Question 1).
- b. & c. The elements of the current TCU technology plan mapped to the EDUCAUSE issues.
- d. Classification of each prioritized need as a strategic, tactical, or operational consideration for planning purposes.

a EDUCAUSE Issue	b TCU Major Foci	c TCU Prioritized Needs	d S - Strategic, T - Tactical or O- Operational
1. Funding IT	Technology funding	3. Adequately staff and fund the capitalization, maintenance, and upkeep of equipment for Instructional Services.	S
		4. Create a central fund to support teaching with technology needs	S
2. Administrative-ERP-Information Systems	Spamming Data Warehousing	9. Continue to improve processing and reporting capabilities with existing Peoplesoft system and data warehouse project.	O
		10. Should the University decide to use spamming as a method for distributing information, we would recommend the adoption of a single distribution system that is linked to internal TCU data bases.	O
		20. Provide the University Catalog in PDF format rather than in an online format.	T
		23. Expand the University's scanning and archiving of hard copy records.	T
		24. Establish an institutional digital repository to store, organize and provide access to the scholarly output of the faculty (articles, technical reports, multimedia presentations, conference papers, etc.), institutional statistical data, theses and dissertations, planning documents, self study materials, historical files, etc.	T
		36. Make class photo-rosters available.	O
		37. Implement workflow functionality within PeopleSoft	T

a EDUCAUSE Issue	b TCU Major Foci	c TCU Prioritized Needs	d S - Strategic, T - Tactical or O- Operational
3. Security And Identity Management	Network Security,	7. Continue to increase awareness about electronic security and privacy among faculty, students and staff.	T
		15. Identify and develop a strategy for providing digital signature capability for a variety of campus documents, including registrar documents and email.	T
4. Strategic Planning For IT	N/A		S
5. Faculty Development, Support And Training For IT	N/A	14. Provide the Center for Teaching Effectiveness (CTE) with additional resources to support current levels of training (as use of E-college increases, for example) and to increase the number and flexibility of training opportunities.	T
		16. Create a faculty technology lab with the latest software and hardware that is dual purpose: a) preview new technology and, b) high-tech center to work on projects not possible otherwise.	T.
		17. Provide incentives and rewards for faculty and staff to learn new technology and to develop technology-rich courses and teaching methods, especially the use of technology to increase student engagement in learning.	T.
6. Infrastructure Management For IT	Wireless Networking	1. Implement ubiquitous wireless networking on campus	O
		8. Upgrade the current ID Card System (Diebold) software to latest version during 2004 calendar year. Continue to expand the use and scope of the TCU ID cards.	O
		11. Continue to evaluate and update the supported software each year and provide site licenses and support for this software.	O
		18. Continue to improve the speed of the University backbone and its reliability	S
		19. Responsible persons in charge of computing facilities (labs, offices, etc.) should to re-examine their computer furniture to see if it is comfortable and safe within OSHA guidelines.	O
		22. Integrate voicemail and fax through central server(s).	O
		27. Install "Touch Screen" kiosks at main locations for key processing times, for key activities.	O
		28. Consolidate cell phone service under one or two carriers for better pricing and support.	O
		30. Develop at least one smart classroom with advanced technology resources.	T

a EDUCAUSE Issue	b TCU Major Foci	c TCU Prioritized Needs	d S - Strategic, T - Tactical or O- Operational
		32. Ensure that specialized computing equipment, such as Sun UNIX machines, are supported and updated on the 3-year life cycle.	O
		35. Upgrade University telephone sets and supporting circuit packs whenever possible.	O
7. E-Learning/ Distributed Teaching and Learning	N/A	21. Continue to increase online course offerings through eCollege	S
8. Enterprise-Level Portals (tied) and Web Systems and Services (tied)	Web Content Management	2. Acquire content management software to facilitate local website management	T
		5. Define the Portal Administrator's position and fill it.	T
		25. Make widely available web-based registration tools for administration of programs/projects outside of PeopleSoft.	T
		26. Make existing department forms web-based.	O
10. Business Continuity/ Disaster Recovery (tied) and Governance Organization, and Leadership for IT (tied)	N/A	6. Implement Design Phase II improvements for the Information Commons	O
		12. Make sure that PC and Mac support are at quality parity.	O
		13. Expand the Information Commons to support PDAs and provide better/equal support for Macs.	T
		29. Develop technology-based strategic alliances within the global community, including internships and training	S
		31. Provide a venue for obtaining specialized software and for maintaining it.	T
		33. Develop a university technical support model that utilizes the current Information Commons help desk with additional support from departmental/unit support staff where applicable and advisable.	T
		34. Provide online access for monitoring problems that have been submitted to the Help Desk	O

Attachment 2**Strategic Technology Issues**

Digital technologies have had a major impact on the whole of society and especially higher education. These tools are used for computing, communication, management of information, entertainment, and many other activities. In higher education, digital technologies have changed the means by which knowledge is created, acquired, managed, and distributed. New technologies afford the University community many ways to achieve its mission, goals, and objectives. More importantly, these technologies help institutions to prepare their students to succeed in the working world.

An article entitled, “10 Challenges for the Next 10 years” appeared in a special section on information technology in the January 30, 2004 issue of *The Chronicle of Higher Education*². The topics included in this section were:

1. Collaboration: Seeking Tools That Are Easy To Use
2. Wireless Networks: Looking For Reliability
3. Managing Bandwidth: Packet Shapers Control The Flow
4. Distance Education: Keeping Up With Exploding Demand
5. Fund Raising: Managing Data Is A Key Task
6. Big Systems: Living With Fewer Customizations
7. Course Management: Colleges Push For An Open Approach
8. Security: Threats Will Get Worse
9. Archiving: Ensuring Storage Space And Access
10. Intellectual Property: Digital-Copyright Law Is Ripe For Revision

This supplement hypothesized that during the last ten years, higher education institutions had been concerned mainly with distributing information technology across the campus. It predicted that the next wave of IT activity would be to improve the management and use of technology within the academy. In this case, the challenges refer to more than just the IT-related hardware, software, and communications infrastructures. Instead they include many of elements on which TCU will need to focus in the future, such as the uses of technology and the policies and procedures that support those uses. The prediction made in this series of articles was that the objectives of the next ten years for information and technology in higher education will be to meet the constantly changing needs for information access and management of the use of information and technology by the institution’s constituents. In addition, the articles suggested that institutions of higher learning will need to be able to deal with emerging technologies, new digital issues and fresh management challenges. Meeting these challenges will require an integrated strategy for the development and use of digital information and technology that is aligned with the vision and strategies of the University.

² “10 Challenges for the Next 10 years”. *The Chronicle Review, Information Technology, The Chronicle of Higher Education, Section B*, January 30, 2004. Pp. B1, B3.

Attachment 3**Potential IT Strategies**

Listed below are several potential strategies and associated strategic issues related to planning and management of digital information and technology that may be applicable to TCU IT planning within the context of the VIA. This list is followed by a table that illustrates how the proposed VIA strategic framework can be supported by the potential IT strategies and the existing TCU technology plan document.

1. Develop a vision and strategy for information and technology that is aligned and integrated with and that supports TCU's institutional strategy, mission and vision.
 - Create a method to coordinate technology budget development across the University.
 - Apply digital information and technology to achieve improvements in efficiency and cost-effectiveness of university business processes.
 - Design ways to redistribute or acquire additional resources for digital information and technology and to improve allocation of those resources.
 - Seek appropriate levels of support for all university IT activities
2. Provide a campus environment in which access to digital resources is secure and universal within an enhanced technology infrastructure that includes adequate support services.
 - Improve access to, as well as management and consistency institutional data.
 - Enhance access to and coordination among various campus information systems.
 - Invest in common technology that will permit TCU to pursue the digital accumulation of data.
 - Provide technical support for preservation of institutional history.
 - Develop a reliable information security infrastructure, including appropriate technologies, policies, and associated procedures.
 - Give significant attention and support to matters of network security.
3. Contribute quality information and technology access and support to expansion and enhancement of the university's teaching, learning and research settings
 - Support academic program review and assessment.
 - Augment student support by consolidating support services where possible or practical.
 - Provide for enhanced learning opportunities through use of technology.
 - Encourage faculty adoption and use of technology for both teaching, and research and service activities
 - Increase learning and information sharing opportunities for faculty.
 - Help faculty work use technology to work effectively.
4. Promote improved delivery of services and support to the campus community and provide continuous innovation in the areas of information and technology
 - Improve delivery of services and support to the campus community

- Augment student support by consolidating services where possible or practical, especially in support of the academic environment
- Assist in management of TCU’s intellectual property
- Institute a TCU enterprise architecture process.
- Implement a business continuity process to protect TUC technology assets.

The columns in the following table are:

- Elements of the broad potential strategies developed as part of the VIA synthesis document.
- Sample IT strategies suggested by Kaludis Consulting; referenced to list on previous page.
- Elements of the current TCU technology plan; referenced to plan’s prioritized points.

a. Elements Of The Proposed VIA Strategic Framework	b. Potential IT Strategies (suggested by Kaludis)	c. Major Foci & Prioritized Needs (TCU Technology Plan)
<ul style="list-style-type: none"> • Meeting the TCU Promise • Developing Graduate Education and Research/Creative Activity 	<ol style="list-style-type: none"> 1. Develop a vision and strategy for information and technology that is aligned and integrated with and that supports TCU’s institutional strategy, mission and vision. 3. Contribute quality information and technology access and support to expansion and enhancement of the university’s teaching, learning and research settings. 	
<ul style="list-style-type: none"> • Acquiring, Allocating, and Managing Resources in Support of Quality 	<ol style="list-style-type: none"> 1. Develop a vision and strategy for information and technology that is aligned and integrated with and that supports TCU’s institutional strategy, mission and vision. 	<p>Technology funding</p> <ol style="list-style-type: none"> 3. Adequately staff and fund the capitalization, maintenance, and upkeep of equipment for Instructional Services. 4. Create a central fund to support teaching with technology needs

<p>a. Elements Of The Proposed VIA Strategic Framework</p>	<p>b. Potential IT Strategies (suggested by Kaludis)</p>	<p>c. Major Foci &Prioritized Needs (TCU Technology Plan)</p>
<ul style="list-style-type: none"> • Acquiring, Allocating, and Managing Resources in Support of Quality • Building “Excellence” into the Fabric of the University • Meeting the TCU Promise • Developing Graduate Education and Research/Creative Activity 	<ol style="list-style-type: none"> 1. Develop a vision and strategy for information and technology that is aligned and integrated with and that supports TCU’s institutional strategy, mission and vision. 2. Provide a campus environment in which access to digital resources is secure and universal within an enhanced technology infrastructure that includes adequate support services. 	<p>Spamming & Data Warehousing</p> <p>9. Continue to improve processing and reporting capabilities with existing Peoplesoft system and data warehouse project.</p> <p>10. Should the University decide to use spamming as a method for distributing information, we would recommend the adoption of a single distribution system that is linked to internal TCU data bases.</p> <p>20. Provide the University Catalog in PDF format rather than in an online format.</p> <p>23. Expand the University’s scanning and archiving of hard copy records.</p> <p>24. Establish an institutional digital repository to store, organize and provide access to the scholarly output of the faculty (articles, technical reports, multimedia presentations, conference papers, etc.), institutional statistical data, theses and dissertations, planning documents, self study materials, historical files, etc.</p> <p>36. Make class photo-rosters available.</p> <p>37. Implement workflow functionality within PeopleSoft</p>
<ul style="list-style-type: none"> • Acquiring, Allocating, and Managing Resources in Support of Quality 	<ol style="list-style-type: none"> 2. Provide a campus environment in which access to digital resources is secure and universal within an enhanced technology infrastructure that includes adequate support services. 	<p>Network Security</p> <p>7. Continue to increase awareness about electronic security and privacy among faculty, students and staff.</p> <p>15. Identify and develop a strategy for providing digital signature capability for a variety of campus documents, including registrar documents and email.</p>

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<ul style="list-style-type: none"> • Developing Graduate Education and Research/Creative Activity • Building “Excellence” into the Fabric of the University 	<p>3. Contribute quality information and technology access and support to expansion and enhancement of the university’s teaching, learning and research settings.</p>	<p>14. Provide the Center for Teaching Effectiveness (CTE) with additional resources to support current levels of training (as use of E-college increases, for example) and to increase the number and flexibility of training opportunities.</p> <p>16. Create a faculty technology lab with the latest software and hardware that is dual purpose: a) preview new technology, and b) high-tech center to work on projects not possible otherwise</p> <p>17. Provide incentives and rewards for faculty and staff to learn new technology and to develop technology-rich courses and teaching methods, especially the use of technology to increase student engagement in learning.</p>

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<ul style="list-style-type: none"> • Meeting the TCU Promise • Acquiring, Allocating, and Managing Resources in Support of Quality • Building “Excellence” into the Fabric of the University 	<p>2. Provide a campus environment in which access to digital resources is secure and universal within an enhanced technology infrastructure that includes adequate support services.</p>	<p>Wireless Networking</p> <p>1. Implement ubiquitous wireless networking on campus</p> <p>8. Upgrade the current ID Card System (Diebold) software to latest version during 2004 calendar year. Continue to expand the use and scope of the TCU ID cards.</p> <p>11. Continue to evaluate and update the supported software each year and provide site licenses and support for this software.</p> <p>18. Continue to improve the speed of the University backbone and its reliability</p> <p>19. Responsible persons in charge of computing facilities (labs, offices, etc.) should to re-examine their computer furniture to see if it is comfortable and safe within OSHA guidelines.</p> <p>22. Integrate voicemail and fax through central server(s).</p> <p>27. Install "Touch Screen" kiosks at main locations for key processing times, for key activities.</p> <p>28. Consolidate cell phone service under one or two carriers for better pricing and support.</p> <p>30. Develop at least one smart classroom with advanced technology resources.</p> <p>32. Ensure that specialized computing equipment, such as Sun UNIX machines, are supported and updated on the 3-year life cycle.</p> <p>35. Upgrade University telephone sets and supporting circuit packs whenever possible.</p>
<ul style="list-style-type: none"> • Meeting the TCU Promise • Developing Graduate Education and Research/Creative Activity • Building “Excellence” into the Fabric of the University 	<p>3. Contribute quality information and technology access and support to expansion and enhancement of the university’s teaching, learning and research settings.</p>	<p>21. Continue to increase online course offerings through eCollege</p>

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<ul style="list-style-type: none"> • Building “Excellence” into the Fabric of the University • Acquiring, Allocating, and Managing Resources in Support of Quality • Meeting the TCU Promise 		<p>Web Content Management</p> <p>2. Acquire content management software to facilitate local website management</p> <p>5. Define the Portal Administrator’s position and fill it.</p> <p>25. Make widely available web-based registration tools for administration of programs/projects outside of PeopleSoft.</p> <p>26. Make existing department forms web-based.</p>
<ul style="list-style-type: none"> • Building “Excellence” into the Fabric of the University • Meeting the TCU Promise • Acquiring, Allocating, and Managing Resources in Support of Quality 	<p>4. Promote improved delivery of services and support to the campus community and provide continuous innovation in the areas of information and techno</p>	<p>6. Implement Design Phase II improvements for the Information Commons</p> <p>12. Make sure that PC and Mac support are at quality parity.</p> <p>13. Expand the Information Commons to support PDAs and provide better/equal support for Macs.</p> <p>29. Develop technology-based strategic alliances within the global community, including internships and training</p> <p>31. Provide a venue for obtaining specialized software and for maintaining it.</p> <p>33. Develop a university technical support model that utilizes the current Information Commons help desk with additional support from departmental/unit support staff where applicable and advisable.</p> <p>34. Provide online access for monitoring problems that have been submitted to the Help Desk</p>