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Information technology (IT) strategic planning for libraries

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Abstract

Purpose – The purpose of this paper is to describe an approach to information technology (IT) strategic planning for libraries and institutions of higher education.

Design/methodology/approach – The “why, what, and how” of IT strategic planning for libraries is explained, to show the efficacy and value of long-term IT planning and budgeting. The organization, design, processes, templates, and methodologies of IT strategic planning practices that have been proven and constantly refined through projects with academic, public, and national libraries are described.

Findings – Principles described for IT strategic planning as a team-based enterprise learning process apply as well to the design and conduct of major IT procurements, where the organization also seeks best value IT outcomes for the long term. The approach is scalable with respect to the human resources and time required (e.g. three months, six months); the design and steps of the process; the methodologies employed; and the number, design, format, components, and contents of internal working documents and the published report(s).

Originality/value – IT strategic planning educates the institution about choices and consequences, decides on technology priorities and investments, makes informed decisions with confidence, and delivers consensus-based outcomes and stakeholders’ buy-in.

Keywords Information systems, Strategic planning, Libraries, Higher education

Paper type General review

Introduction

This paper describes an approach to information technology (IT) strategic planning for libraries and institutions of higher education that was developed in 1999 by adapting two public sector IT strategic planning best practice models (ITSC, 1999; Committee on Institutional Cooperation, n.d.) to produce a set of templates and methodologies that have been constantly refined with projects for consortia, academic, public, and national libraries, and colleges and universities. (As parenthetically noted in the following sections, many of the principles described for IT strategic planning as a team-based enterprise learning process apply as well to the design and conduct of major IT procurements, where the organization also seeks best value IT outcomes for the long term.)

What is a library IT strategic plan?

The library IT strategic plan should define the library’s strategic directions for technology and specify the technologies and IT projects it plans to implement in each of the next one, three, and five years, with technology budgets for each year.

The plan should be consistent with the library’s mission, vision, and values – and those of its host institution. The plan should substantiate the needs for technology funding. The plan should answer key questions like “What technologies should my



library consider?”, “How will they improve library services?” “Which ones should my library implement – when, and in what order?”[1] “How much money and human resources will we need to invest?” “Are there technologies and costs we should share with other libraries?”[2].

The plan should define a set of IT goals, objectives, and strategies that are consistent with those of the library’s overall strategic plan – or folded into it.

The plan should have performance measures to determine progress or problems with actionable items.

The plan should be easy for the library IT strategic planning team to update annually – or more frequently – to keep technology plans and budgets current with innovations and opportunities.

Why undertake IT strategic planning?

Simply put, strategic planning determines where an organization is going over the next year or more, how it’s going to get there and how it’ll know if it got there or not . . . (McNamara, 2003).

Strategic planning is the first step in initiating organizational change, as well as an essential element of business process reengineering. The strategic planning process includes an organizational assessment and the development of strategic foundations: mission, future vision, and guiding principles. Analyzing the gap between the current state of the organization and its future vision provides essential information for developing strategic goals, specific strategies, and objectives (ITSC, 1999).

Many previously unthinkable process changes are possible because of new information technologies (ITSC, 1999).

The objectives of IT strategic planning are to determine the library’s strategic directions for technology, to provide needed technology tools, and to re-invent the organization to the point where everyone becomes part of the IT process. IT strategic planning looks beyond the traditional limits in libraries’ technology planning by examining new possibilities and planning aggressively – and smart – for libraries’ roles in the digital age. Above all the IT strategic plan must ensure that the library remains technologically relevant to the needs of its constituents[3].

To be meaningful service organizations in the twenty-first century, libraries should become highly proficient, technology-driven learning organizations[4] where workflows are efficient and employees are well-trained and equipped to provide the best service possible, and are ready to master change and provide new technology-based services. Staff with technical talent should be welcomed, challenged, motivated, and made to feel that the library is a place for them to contribute and grow. In this kind of learning environment staff stay attuned to new information resources and service possibilities, and the organization constantly seeks and adapts best practices in delivering information resources and services to its patrons.

Many library organizations and staffing patterns are still based on service models developed in the analog era. For libraries to assert their roles as critical players in society’s information environment, they must adapt, re-invent, and re-cast themselves

in ways that carry forward and continue their mission, values, and ethics as information providers in the digital age.

As a library positions to offer new and enhanced services, it must make needed financial commitments to continually enhance and expand its information infrastructure, and be ready to adapt and re-structure its organization to provide capabilities required for expanded roles.

Designing the process

Design of the IT strategic planning process is the key to its success (and that of any major IT procurement). The planning project should be conducted as a team-based enterprise learning process that educates the institution about choices and consequences, decides on technology priorities and investments, makes informed decisions with confidence, and delivers consensus-based outcomes and stakeholders' buy-in.

A well-designed project conducted with the right organization, methodologies, and facilitating skills will achieve consensus-based outcomes and stakeholders' buy-in that are invaluable for the next stages – funding and implementation of technology projects.

The steering committee and IT planning team: critical to quality, acceptance, and buy-in

Top management must endorse and support plans for the design, organization, and schedule of the IT strategic planning process – making it a priority. Selecting members of the “IT planning team” is the key step; it will be the primary work group entrusted by management to develop the plan. Top management can either be included in the planning team, or in a “steering committee.” If the size and complexity of the project, library organization, or host institution (e.g. local government, academic institution) so warrants, a “steering committee” that includes top managers can be constituted as the governing body with ultimate authority for approving plans and making needed choices on strategic directions. The planning team, however, will be the group responsible on behalf of the organization for learning and mastering the information and issues required to develop the IT strategic plan.

Membership of the IT planning team is critical to the success of the planning process: it needs to be right-sized and rightly-constituted. Small group dynamics govern the efficiency and success of discussions, learning, and decision making; a seven- to nine-member team usually works well. Members must represent the technical, policy, and operational aspects of the library and the issues, concerns, and goals for enhanced IT. Collectively, the team must have the credibility and judgment to produce and lead in acceptance of the plan. The team should not be overloaded with senior staff or managers, and membership should be regarded as a major development opportunity for promising individuals.

Fundamental in building trust and consensus are for team members to receive the same information at the same time, and to meet and discuss information together – not in sub-groups – in order to learn from each other and to develop shared understandings. This approach recognizes that the team's understandings are broader/better than those of any individual, and that a team-based approach is essentially a “buddy system” that relieves each member from “having to know it all.”

As described later, the planning process will involve other people in information-gathering and reporting activities. (It should be noted that for major IT procurements, like next-generation integrated library systems, or enterprise resource planning (ERP) systems, the project organization will need subject teams (e.g. task forces, work groups) that focus on assigned subsystems or topics, who report their findings and judgments to the decision-making team that takes into account these enterprise-wide assessments in evaluating alternatives and determining the best value solutions.)

Making informed decisions with consensus and confidence

The author believes that IT planning and procurement processes should always be consensus based, to ensure that all points of view are heard and that all participants support the outcomes. If a team is uncomfortable making a decision, or unable to reach consensus, usually more information is needed, or the information in hand has not been sufficiently discussed or understood. Adjusting the process to gather and evaluate more information likely will position a team to make a decision it is comfortable with and can justify to others, and the institution.

The planning project as preparation and practice for implementation

A team-based planning process develops not only individuals' team skills, but also shared understandings and trust. Developing key players and institutional experience with team-based project organization, reporting, and structured decision making are valuable lead-ins to the implementation phases of the targeted technology projects.

The formula for success is to have a process design that involves the organization's key individuals and opinion leaders in the right places and roles in the project – to ensure representation of people who make or are affected by the project's decisions.

Undertaking IT planning (and procurement) projects as learning processes

Designing the project as an enterprise learning process will educate people about possible technologies and service enhancements, obtain and share inputs from across the organization, and explain perceptions from different points of view.

The goal of designing IT strategic planning as an enterprise learning process is for the organization to gain understandings of alternative IT solutions before committing to choices and implementation projects.

The organization needs to learn as much as reasonable before committing to an IT solution – particularly if it is expensive, or requires re-structuring and re-engineering basic workflows and operations of core business operations, or has a life expectancy of five to ten years or more.

Taking a holistic approach: enterprise IT strategic planning v silo planning

Waves of new technology bring challenges and opportunities that invite a holistic approach to enterprise planning – in contrast to silo planning for individual organizational units or subsets of IT resources. The impact of new and commonly used technologies and highly specialized IT solutions invites the organization to take a holistic, enterprise approach to IT strategic planning.

The following list of technologies is a compilation of common terms and descriptions that may have different meanings to individuals in different places in the institution. The enterprise may be challenged to understand, evaluate, prioritize, plan, and fund such technologies over one-year, three-year, and five-year periods, especially if there are competing organizational units with shared interests that may not recognize possible synergies:

- Google and other web search engines and products;
- metasearching (federated searching);
- web portals: institutional and library portals and portlets to library electronic resources and selected internal and external web sites;
- options for providing personalized information services through staff, student, and public portals and RSS;
- options for single sign-on for networked services, associated directory services, and access to e-learning services in the context of the enterprise information environment;
- interoperability of key information and learning systems;
- open-source programming and software development;
- XML;
- web services;
- supplemental web resources (video streaming, podcasts, interactive technologies, etc.);
- instructional technologies and infrastructure;
- telecourse development and delivery;
- enterprise calendaring, scheduling, and reservation systems;
- enterprise PC scheduling and print management;
- enterprise-wide media booking and management systems;
- enterprise-wide database management systems;
- enterprise-wide human resources systems;
- enterprise-wide financial systems;
- physical access and security systems;
- smart cards;
- e-commerce and other electronic transactions;
- library RFID systems;
- wireless technologies;
- book-handling (automated materials handling (AMH)) and inventory systems;
- data warehousing and mining;
- business intelligence;
- institutional (digital) repository (IR);
- digital asset management;

- content management;
- digital rights management;
- document imaging systems;
- electronic resource management (ERM);
- e-learning systems;
- learning management system (LMS);
- personal computing devices;
- personal communications devices; and
- personal digital assistants (PDAs).

Adapting vs creating templates and methodologies

Adapting a scalable and flexible IT strategic planning toolkit to plan and accomplish each step of the project can be fast, efficient, and low-risk compared to designing and planning the project and creating methodologies from scratch.

The approach described by this paper is based on templates for processes, work plans, and the IT strategic plan itself that are designed to save time, and serve as guidelines to minimize mistakes and omissions. These templates can be scaled, revised, and edited by eliminating and adding sections and language to produce best-fit work plans and reports for a library or institution of higher education. Working with a well-crafted template helps the planning team identify and evaluate possibilities for the IT strategic plan, and think through issues they may not be familiar with, while building on best practices – and avoiding “re-inventing the wheel.” “Everything is a Process” and “Ruthless Objectivity” are two adages that these IT project designs and practices are built upon, to ensure the right outcomes.

The “strategic fit exercise” components of this methodology are particularly useful in assessing the appropriateness of special opportunities that may arise. “opportunistic planning” in response to a windfall opportunity may prove enticing, but might not necessarily pass the test for strategic fit when all aspects and criteria are considered. For example, inadequate assessment in evaluating “free” IT resources (e.g. unsolicited vendor services, unsupported open source software) – or perhaps even more dramatically, buildings or land or a business deal – can lead to regrettable outcomes, possibly long-term.

Outside expertise in designing, directing, facilitating, and managing the project

Designing, organizing, directing, and facilitating the project requires a combination of skills that often are best provided with outside, experienced, and neutral assistance. Through close working relationships with institutional administrators and the project organization – particularly with the institutional project manager and key project decision-making teams – an outside consultant with subject expertise and know-how can make a big difference. A neutral expert with the ability and skill to facilitate discussions successfully (that may address difficult and sensitive topics for the institution or some individuals) can guide a team to reach its own conclusions and

decisions through objective deliberations – circumventing anyone’s dictating “what the team should do.”

Properly designed and conducted, the planning project (and subsequent technology procurement) can be practice (“a dry-run”) for the implementation project, and set the stage for transitioning the planning/procurement project organization, and key individuals who have proven themselves, into the implementation project organization.

Steps in the IT strategic planning process

A full-scale IT strategic planning process can involve the following steps, using special techniques and methodologies designed for libraries and institutions of higher education. The processes, steps, and methods should be scalable and flexible, for best-fit to the institution and project:

- (1) Signing-off on project plans with management:
 - detailed design of steps in the planning process;
 - membership of the IT Planning Team, and optionally as needed, a Steering Committee;
 - detailed schedule for the process; and
 - allocation of people’s time.
- (2) Orienting the IT strategic planning team and performing a SWOT analysis:
 - assigning readings to recognize what may be possible;
 - IT strategic planning questionnaire; and
 - assessing the library’s strengths, weaknesses, opportunities, and threats (SWOT analysis).
- (3) Assessing the library’s current environment and use of IT – review of the library’s current environment and use of IT (a classical “environmental scan”) includes walkthroughs of the facilities and operations, and comprehensive review with the planning team of the political, technical, and financial issues of the library and overall situation. It includes gathering and analyzing statistical and qualitative data. It should identify needed organizational changes in culture, management, support, and staff development. It may conclude with formal approval of a technology needs assessment (or sometimes, a gap analysis) document.

Planning technology for new and renovated buildings may also involve review of building designs and plans with an architect, designer, or space planner.

These activities can be most efficiently performed with methodologies and templates designed for these purposes, and can be most effectively performed by an outside, neutral party.
- (4) Assessing information technologies with the planning team:
 - identifying and assessing current and oncoming information technologies for the foreseeable future;
 - anticipating the impact of technologies on the library’s mission, goals, objectives, and roles within the library’s environment – and on services;
 - reviewing possibilities, issues, alternatives, and strategic directions; and

- discussing the issues, concerns, and goals for enhanced information technology to provide expanded services.
- (5) Reviewing with focus groups of staff and patrons key questions/topics the possibilities, issues, and general courses of direction identified with the planning team.
- (6) Conducting interviews with key individuals on possibilities, issues, etc.
- (7) Public and targeted web surveys.
- (8) Wrapping-up the planning phase by defining, prioritizing, budgeting, and scheduling the technology implementation projects through working sessions with the planning team to produce an information technology strategic plan for the library:
 - that fulfills the planning component hierarchy illustrated by Figure 1: mission, vision, IT strategic goals, objectives, performance measures, and strategies;
 - that defines, evaluates, prioritizes, schedules implementation years, and decides about possible projects for implementing technologies and technology-based services for the library;
 - that validates the strategic fit of key recommendations;
 - that defines the resulting strategic directions;
 - that presents one-year, three-year, five-year (and longer, as needed) IT and IT Project plans, budgets, and schedules; and
 - that defines requirements for library organization and staffing to accomplish the IT strategic plan and the targeted technology implementation projects.
- (9) Reviewing, revising, and finalizing the IT strategic plan with top management/steering committee until final acceptance.
- (10) Presenting the IT strategic plan for the library to the organization, institution, and key stakeholders.
- (11) Publishing and communicating the IT strategic plan to targeted constituencies: a communications plan may be developed to accomplish this.
- (12) Planning for annual – or more frequent – review and update of the plan.

Concluding the IT procurement project

It should be noted that the IT procurement project ends best when contracts with vendor(s) finalize, in agreed-upon writing, the definition of project scope and detailed implementation plan, schedule, and costs (from which the project budgets and cash-flows can be constructed). The goal at this stage is to have eliminated unknowns insofar as reasonable, in order to avoid (minimize) unwanted surprises in the implementation project that lies ahead. The negotiation stage – with development of detailed, comprehensive contracts – is the final learning phase of the IT procurement project.

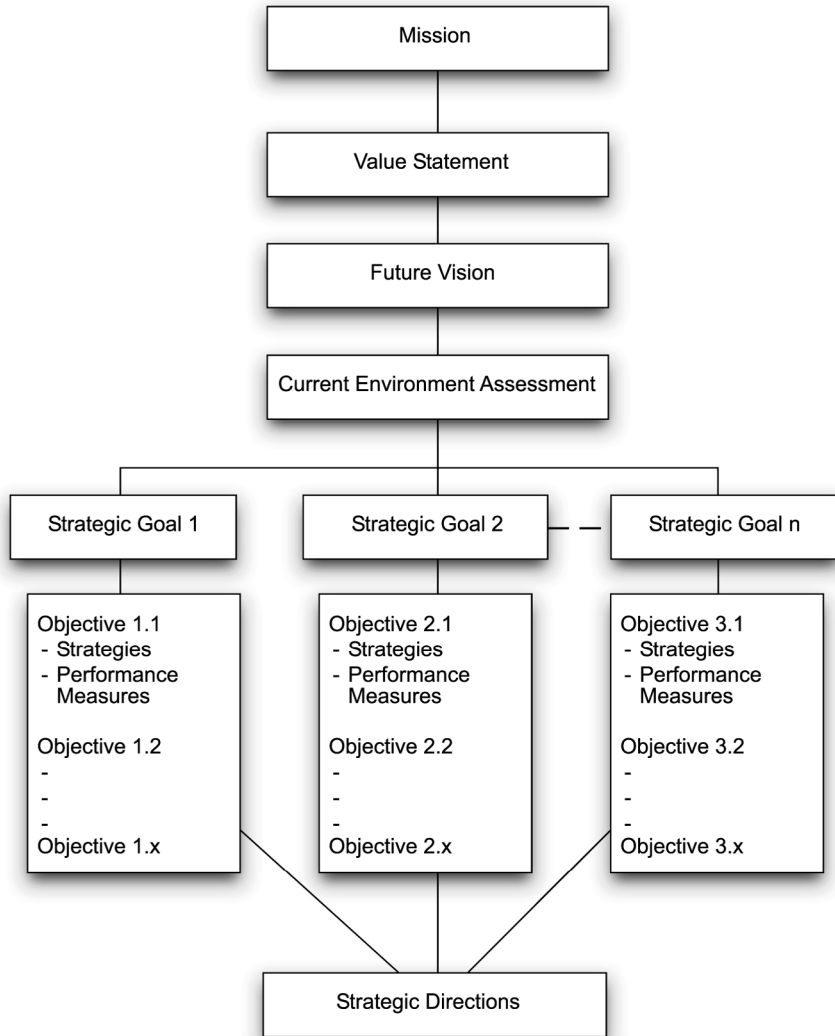


Figure 1.
Planning component
hierarchy

Source: ITSC (1995)

The planning component hierarchy

Figure 1 illustrates the planning component hierarchy that has been used to develop the IT strategic planning process for libraries described by this paper; the following paragraphs that explain it are based on the State of Maryland template that is cited (ITSC, 1999).

The IT strategic plan flows from the mission, vision, and objectives of the organization, and is developed with methodologies, templates, and practices for each component. It is not unusual to revise the mission statement during the strategic planning exercise. Institutional value statements may be included in the hierarchy

The technology vision typically will be a single paragraph that describes the library's desired organizational end-state with respect to services and technology.

The IT strategic goals will be statements about where the library wants to be in the future, in order to achieve the overall mission of the organization and the vision of its future. The technology vision is a statement about where to go, and the IT strategic goals are statements about how to get there.

Objectives represent specific courses of action that are bounded by and support the strategies. They contain definitions of targets and performance measures for evaluating progress during the planning period toward achieving the strategic goals.

Strategies are more defined statements that set forth how the organization will achieve its strategic goals. There are typically many ways to achieve strategic goals; the strategies define the alternatives selected by the planning team.

Performance measures will be defined in order to measure progress and identify problems in achieving these goals. The Appendix provides a sample.

Usually there will be many possible projects or initiatives that could be pursued over the planning period. The idea is for the planning team to prioritize, select, and then schedule implementation years for those projects that will have the most positive effect during the planning period.

Based on the implementation year scheduled by the planning team for each project, budgets for each implementation year will be developed. Table I is an example. This methodology provides for one-year, three-year, and five-year (and sometimes ten-year) budgets that the library annually can review and update, defining new projects to implement new technologies, and re-assessing new and old projects together through evaluation, prioritization, cost estimates, and targeted implementation years. The IT strategic plan should include a section of methodologies that the planning team can easily use to review and update the IT strategic plan, budget, and schedule each year.

Scalability, flexibility, preferences, nuances

There are a variety of perspectives, models and approaches used in strategic planning. The way that a strategic plan is developed depends on the nature of the organization's leadership, culture of the organization, complexity of the organization's environment, size of the organization, expertise of planners, etc. (McNamara, 2003).

Quite often, an organization's strategic planners already know much of what will go into a strategic plan (this is true for business planning, too). However, development of the strategic plan greatly helps to clarify the organization's plans and ensure that key leaders are all "on the same script". *Far more important than the strategic plan document, is the strategic planning process itself* (McNamara, 2003, emphasis added to emphasize the importance of process).

The approach to IT strategic planning (and somewhat to IT procurements) described herein is scalable with respect to the human resources and time required (e.g. three months, six months); the design and steps of the process; the methodologies employed;

Table I.
Sample recommended
three-year technology
budget

1	2	3	4	5	6	7	8	9	10	11	12	All \$ costs in thousands											
												Project/Item	Priority	Year	Planned implementation	Estimated one-time	No. of years	Estimated annual amortization	Estimated annual maintenance	Estimated three year cost	Low	High	Low
	H	2007	54.4	68.0	3	18.1	22.7	6.5	8.2	128.4	160.5	1 Student workstations at Location A											
	H	2007	0.8	10.0	3	0.3	3.3	0.1	1.2	1.9	23.6	2 Student workstations at Location B											
	H	2005	16.0	20.0	3	5.3	6.7	1.9	2.4	37.8	47.2	3 Student workstations for new learning resource lab											
	H	2005	5.6	7.0	3	1.9	2.3	0.7	0.8	13.2	16.5	4 Staff workstations at Location A											
	H	2006	6.0	8.0	3	2.0	2.7	0.7	1.0	14.2	18.9	5 Multimedia development Apple Mackintoshes											
	H	2006	15.0	20.0	5	3.0	4.0	1.8	2.4	29.4	39.2	6 3 digital video cameras direct to computer											
	H	2005	15.6	19.5	3	5.2	6.5	1.9	2.3	36.8	46.0	7 Multimedia development Apple Mackintoshes											
	H	2007	6.0	8.0	3	2.0	2.7	0.7	1.0	14.2	18.9	8 Teaching and learning center workstations (12 units)											
	H	2005	9.9	15.0	3	3.3	5.0	1.2	1.8	23.4	35.4	9 Circulating laptops (5 units) and data projectors (3 units) in Location A											
	H	2006	9.9	15.0	3	5.0	1.2	1.8	2.3	35.4		10 Circulating laptops (5 units) and data projectors											
	H	2007	9.9	15.0	3	3.3	5.0	1.2	1.8	23.4	35.4	11 Circulating laptops (5 units) and data projectors (3 units) in Location C											
	H	2005	2.0	3.2	5	0.4	0.6	0.2	0.4	3.9	6.3	12 DVD/VCR players (16 units)											
	H	2006	2.0	3.2	5	0.4	0.6	0.2	0.4	3.9	6.3	13 DVD/VCR players (16 units)											
	H	2007	2.0	3.2	5	0.4	0.6	0.2	0.4	3.9	6.3	14 DVD/VCR players (16 units)											
												15 802 1.1 g wireless access points and associated equipment											
	H	2005	7.5	8.5	3	2.5	2.8	0.9	1.0	17.7	20.1	16 (2/floor + 2 labs) 8 at Location A; 2 at Location B											
	H	2005	2.3	2.6	3	0.8	0.9	0.3	0.3	5.4	6.1	17 3 at new campus library											
												18 Laptops for checkout and associated charging racks											
	H	2005	1.6	2.0	5	0.3	0.4	0.2	0.2	3.1	3.9	19 2 racks at Location A, B											

(continued)

1	2	3	4	5	6	All \$ costs in thousands				11	12
						Priority	Year	Low	High		
Project/Item					No. of years	Estimated amortization	Estimated annual maintenance	Estimated three year cost			
20	H	2005	36.0	3	12.0	12.0	4.3	85.0			
21	M	2006	14.0	18.0							
22	H	2005	1.6	2.0	3	0.5	0.7	0.2	3.8	4.7	
23											
24	M	2006	12.0	15.0	3	4.0	5.0	1.4	1.8	28.3	
25	M	2006	21.0	28.0	3	7.0	9.3	2.5	3.4	49.6	
26	M	2006	1.6	2.0	3	0.5	0.7	0.2	0.2	3.8	
27	M	2006	1.2	1.8	3	0.4	0.6	0.1	0.2	2.8	
28	M	2005	0.6	0.8	3	10.0	20.0	3.6	7.2	41.4	
29	H	2007	15.0	20.0	5	10.0	20.0	3.6	7.2	55.8	
30	L	2006	5.0	10.0	5	1.0	2.0	0.6	1.2	9.8	
31	H	2006	25.0	40.0	3	8.3	13.3	3.0	4.8	59.0	
32	H	2006	15.0	20.0	3	5.0	6.7	1.8	2.4	35.4	
33	M	2007	21.5	31.5	5	4.3	6.3	21.5	31.5	98.9	
34	L	2007	1.2	1.5				1.2	1.5	4.8	
35	M	2007	16.0	24.0	5	3.2	4.8	1.2	1.5	29.2	
36	H	2006	10.0	15.0	3	3.3	5.0	1.2	1.8	23.6	
37											
38	H	2005	450.0	900.0	5	90.0	180.0	54.0	108.0	882.0	
39	H	2005								1,764.0	

(continued)

Table I.

Table I.

1	2	3	4	5	6	All \$ costs in thousands						11	12
						Planned implementation Year	Estimated one-time Low	Estimated one-time High	Estimated annual amortization No. of years Low	Estimated annual amortization No. of years High	Estimated annual maintenance Low		
Project/Item	Priority	Year	Low	High	No. of years	Low	High	Low	High	Low	High	Low	High
40 25 classrooms (locations A, B	H	2006	25.0	50.0	5	5.0	10.0	3.0	6.0	49.0	98.0		
41 25 classrooms (locations A, B	H	2007	25.0	50.0	5	5.0	10.0	3.0	6.0	49.0	98.0		
42 Classroom technology (new buildings, 111 classrooms) @ \$10,000-\$20,000	H	2005	1,110.0	2,220.0	5	222.0	444.0	133.2	266.4	2,175.6	4,351.2		
43 TV/VCRs mounted in classrooms where data projectors are not mounted	H	2005	8.0	16.0	5	1.6	3.2	1.0	1.9	15.7	31.4		
44 Adult Ed. community meeting room presentation equipment	H	2005	55.0	55.0	5	11.0	11.0	6.6	6.6	107.8	107.8		
45 Laptop PCs w/ carts for Adult Ed. community meeting room	M	2005	30.0	40.0	3	10.0	13.3	3.6	4.8	70.8	94.4		
46 Personal communications devices for staff	M	2007	3.5	4.5	3	1.2	1.5	0.4	0.5	8.3	10.6		
47 Public printing control systems @ locations A, B, C	H	2005	30.0	50.0	5	6.0	10.0	3.6	6.0	58.8	98.0		
48 Classroom equipment control system	H	2005	3.5	4.0	5	0.7	0.8	0.4	0.5	6.9	7.8		
49 Web conferencing technology for classrooms and offices	M	2007	45.0	60.0	5	9.0	12.0	5.4	7.2	88.2	117.6		
50 Digital signage system for messages to be broadcast to all locations	L	2007	20.0	30.0	5	4.0	6.0	2.4	3.6	39.2	58.8		
51 Institutional digital repository system	H	2007	50.0	75.0	5	10.0	15.0	6.0	9.0	98.0	147.0		
52 Electronic resource management (ERM) system	H	2007	50.0	75.0	5	3.2	6.4	1.9	3.8	31.4	62.7		
53 Totals			2,269.7	4,125.3		501.3	902.1	291.2	527.3	4,599.1	8,352.5		

Note: This sample is based on an IT Strategic Plan for a US college. Several "technology pieces" that are addressed in the Appendix have been added to Table I to illustrate how their priorities, budgets, and planned implementation years might be represented. This budget table can be sorted by priority, year, etc. to present various scenarios; this table represents rough, grossly estimated costs of various possible technology projects and technology pieces that must be re-evaluated annually; col 2 priorities: H = high, M = medium, L = low, N = not in this period; cols 11 and 12 five-year cost estimate does not reflect possible hardware warranties

and the number, design, format, components, and contents of internal working documents and the published report(s).

Virtually every component of the toolkit (work plans, templates, and methodologies) addressed by this paper are flexible and adaptable to fit the culture and preferences of the organization and its top managers.

The author has found that many top managers in libraries and institutions of higher education have experience with strategic planning, and quite often preferences for particular approaches or methods – but rarely have developed an IT strategic plan. By emphasizing that “Everything is a process!” in designing projects for IT planning and procurements, the experience, expertise, and skills of the organization’s leadership and key human resources can be leveraged to assure success. Careful design of the process, and “ruthless objectivity” in its conduct, are keys to success.

Notes

1. In the library automation marketplace, the introduction of new products sometimes poses strategic questions like the following for academic libraries: Is our integrated library system (ILS) an adequate enterprise platform for the next five years? Should we upgrade or replace it now? What is our priority for complementing our current ILS by adding modules for metasearching and discovery, electronic resource management (ERM), institutional (digital) repository (IR)? Should these be sole-sourced from our current ILS vendor, or through a competitive process that also evaluates third-party solutions? How much custom development should we make to our portal, or should we replace it?
2. The Library IT Strategic Planning Processes described by this paper typically consider 50 to 100 “Technology Pieces” – i.e. specific technologies, systems, services, equipment, etc. – for the library to assess, especially in planning for new and renovated facilities.
3. See the December 2005 OCLC Perceptions of Libraries and Information Resources report that presents findings from a survey of people’s information-seeking behaviors, their familiarity with libraries’ electronic resources, and how libraries fit into their lives. <https://www3.oclc.org/app/request/bin/request.asp?specialCode = perceptions2005>
4. For discussion of Learning Organizations see Tapscott and Caston (1993).
5. Working from the library IT strategic planning process templates described by this paper, the planning project may define five to ten IT strategic goals with objectives, strategies, and performance measures that may take up to five years to accomplish. The culture, preferences, and nuances of the organization and individuals determine how these are best articulated. Review and revision of these on an annual basis – or more frequently, as needed – is required to keep the IT strategic plan (with priorities, schedules, and annual budgets) current and relevant.

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Appendix. Sample strategic goal with objectives, strategies, and performance measures – sample library strategic goal 2

Maximize customers' access to digital information resources[5].

Objective 2.1

Provide adequate information infrastructure.

Strategies

- (2.1.1) Provide adequate numbers of PCs and personal communications and computing devices.
- (2.1.2) Provide adequate bandwidth for users' connectivity to the internet/WWW and electronic resources.
- (2.1.3) Provide customers with remote-site access to resources on the internet/WWW.

Performance Measures

- Provide an additional NNN PCs in the library in fiscal year (FY) NN/NN and onward.
- Provide an additional NNN personal computing and communications devices in the library in FY NN/NN.

Objective 2.2

Annually or as needed review the Library's policy and budgets for e-resources and the internet/WWW, and update as needed.

Strategies

- (2.2.1) Develop policies and systems for subsidizing and charging fees for access to licensed resources.
- (2.2.2) Manage, monitor, and evaluate the costs, use, and value of e-resources.
- (2.2.3) Annually review/revise licenses, subscriptions, and budgets for e-resources, and renew or discontinue subscriptions accordingly.

Performance measures

- Conduct the first annual electronic resources review no later than First Quarter (Q1) NN/NN.
- Develop needed policies no later than first quarter (Q1) NNNN.
- Procure and implement an ERM solution in FY NN/NN.

Objective 2.3

Provide capabilities for customers to easily determine the availability of electronic resources, and access to them.

Strategies

- (2.3.1) Implement a library portal with metasearching, RSS, and personalization (“My Library”) features for customers.
- (2.3.2) Implement an institutional (digital) repository solution to collect, access, and serve institutional content.

Performance measures

- Procure and implement a library portal solution in FY NN/NN.
- Procure and implement an institutional (digital) repository solution in FY NN/NN.

About the author

Rob McGee is founder and President of RMG Consultants, Inc., a boutique information technology consulting firm. Since 1980 RMG has assisted hundreds of leading libraries and institutions of higher education worldwide to plan, buy, and implement IT-based systems and services. RMG is a well-seasoned team of senior consultants who have worked together on a broad range of IT projects with libraries, colleges, and universities throughout the USA and in Australia, Asia, Canada, Egypt, South Africa, and New Zealand. RMG specializes in team-based IT strategic planning and procurement projects that are designed and conducted as enterprise learning processes to achieve best value outcomes. Rob McGee can be contacted at: rob@rmgconsultants.com

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