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STRATEGIC PLANNING FOR INFORMATION TECHNOLOGY IN ACADEMIC LIBRARIES

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ABSTRACT

As the mission of most libraries' in the electronic age is "accessibility" based, library administrators have had to deploy technology as an end. Many academic libraries in Nigeria and across the world have had to invest in technology without planning for it. The rate of obsolescence of technologies, the costs of replacement and updating of the technologies, and the call for accountability by stakeholders are reasons for libraries to creatively plan and implement information technology plans in the context of the institutional goals and mission. It is recommended that appropriate technologies be applied as a means thereby enabling academic libraries to articulate a vision, publicly state a direction, and stay the course despite the numerous distractions faced by library management on daily basis. It is advised that developing an information technology plan is a "manageable" effort.

INTRODUCTION

Technology, in all its various forms, is becoming an integral part of almost all academic library services. From the era of "library mechanization" in the pre -1960s through "library automation" in the 1990s and now to "information technology", a lot of questions remain unanswered about how effective libraries are in deploying technology (Rubin 2000). Even though reasons for adopting technology in libraries had extended over the decades from "automating" routine processes to providing "accessibility" to information resources anywhere, many questions still require answers. Questions such as, has the cost associated with technology been worth it? Do we know what we want the virtual library to be and do? Is enough money and appropriate personnel being allocated to libraries to perform their potentially expanded role in both teaching and scholarship? Do library managers have sufficient independence and training to lead libraries into the new era? Who should train faculty members and students to use the library's information technology? And does a teaching and learning centre belong in the library?

These questions are pointers to the need to clarify the goal of the library in this technological era and to consider how the library can be

restructured to attain that goal. As most government sponsored academic libraries grapple with the realities of underfunding, professionals ask if technology can be sustained.

As the expectations of academic library users grow rapidly and it becomes obvious that *the library is no longer the only information game in town*, decision making becomes more challenging and points to the importance of planning as the engine of managed change. To make certain these technologies are used in an efficient and cost effective manner, and to respond to the accountability concerns, libraries should facilitate the creation and implementation of a robust information technology plan.

TRENDS IN TECHNOLOGY APPLICATION IN LIBRARIES

In the early 1990s, many libraries had to select their first integrated online library systems. Planning efforts were focused on shifting from manual to automated check-out and check-in systems and creating machine-readable representations of shelflists through retrospective conversion projects. Some very early adopters were moving to second-generation systems, but more libraries were automating for the first time than were migrating from one automated systems to another (Cohn 2001).

A decade after, as more and more libraries were reaching the end of the life cycle of their first automated system, they began to consider migrating to an enhanced version of their current system or to an entirely different system. The first systems used by many libraries were created to access and manage primarily locally held resources, especially print resources. However, today libraries must be able to access a wide array of resources and databases in all formats available anywhere. Accordingly, the scope of libraries automated integrated systems was broadened to do more than just computerize manual and paper-based routines. Systems had to connect through the local library or network of libraries into systems of other vendors, far-flung networks, full-content databases and of course, the Internet.

“Accessibility” was re-defined to include the ability to obtain resources and information in all formats wherever it is located, from anywhere, at any time, day or night. Today, information technology increasingly allows a library to change. According to Hitt (2001), technology is enabling-perhaps even causing- changes that are so substantive and pervasive that it is no longer possible or advisable to disconnect an

institution's strategic plans, goals and directions from its information technology initiatives, resources and management.

Katz (2001) expressed the belief that universities have been reacting to technology as a result of administrative concerns and needs rather than deploying it to support the institution's educational mission and goals. To be maximally effective in the long run, the use of technology must be tied to the primary mission and goals of the university (Glick, 2001).

In rapidly changing times, librarians must think creatively about traditional functions and services – acquisitions, cataloging, the public catalogue, circulation, reference, etc. And make their planning horizon as wide as possible. Cohn et al. (2001) prescribed a basic model of library service in an electronic environment based on a work by David Penniman which could help organize the planning efforts.

The model consists of four basic functions of libraries in an electronic age: (1) Providing access to the content of local resources that are part of the library's collection (for example books, periodical, media, electronic resources); (2) Offering gateway or portal access to remote resources (for example books, periodicals, media, electronic resources and so on) including the ability to obtain copies in print and electronic formats. (*Note: "Portal" is defined as an entry point or starting site for the World Wide Web, combining a mixture of content and services.*); (3) Facilitating off-site electronic access to local and remote resources from user's homes and offices; and (4) providing access to human assistance in locating information.

WHAT IS A LIBRARY TECHNOLOGY PLAN?

A technology plan is a detailed, written document that relates technology development to the library's mission and long range planning. The plan identifies ways that the library can improve the delivery of its services, programs, and operations with technology. Technology planning provides direction and a "roadmap" to produce continuous action that creates and maintains a technology-rich learning environment. A technology plan helps libraries prepare for the acquisition of technologies to support the library's strategic goals (State Library of Iowa, 2004).

Kochtanek (2002), states that a technology plan documents the vision and direction of the library and creates a framework to set goals and

identify specific deliverables. Once the plan is in place, it can help the library decision-makers measure the costs and successes in achieving the plan's goals. He further stated that although the plan is a document, it is much more important to recognize that it is also a process to provide staff with a roadmap. The plan connects the library's technology use (current and future) to achieving the library's vision.

Information technology as described by Dugan (2002) is one of the four infrastructural pillars of the library while the others are collections, staff and facilities. He further stated that a technology plan could be used as a guide to identify weaknesses and strengths concerning technological implementations (SWOT analysis); to determine a vision and strategic directions, to identify and prioritize needed technologies to support teaching, learning, and research needs and library services and programs; to help organize technology implementation, such as introducing new technologies and migrating to updated hardware versions or software releases; to let everyone concerned, users, staff, administrators, know what the library is doing; to manage budgeting and expenditures, helping to reduce the chances of unplanned liabilities and acquisitions; to aid in creating a development/fund raising plan; this could be especially useful if a donor should drop by wanting to provide an "unplanned" gift; and to measure, evaluate, and assess progress by helping to answer some of those accountability questions - are the technologies effectively applied to meet the educational mission of the library (such as increases in information competencies), and are services/operations improved through increased efficiencies and productivity

PLANNING FRAMEWORK

Table I shows the structures for academic libraries technology plans.

**TABLE I:
FRAMEWORK FOR ACADEMIC LIBRARY INFORMATION
TECHNOLOGY PLANS**

Structure type	How it works	Advantage	Disadvantage
A	The university has a separate information technology plan that includes the library	(i) The library is incorporated as a recognized resource: the library submitted technology strategies and initiatives supporting university-identified roles such as teaching and research (ii) The library may have added a library specific initiative such as the application of technology to access and retrieve information resources	(i) The Library may have conformed to a university created template of initiatives and was not allowed to add other initiatives. (ii) The library may not be given the space necessary to fully explain its needs and necessary strategies to effectively implement change because of the planning committee's effort to keep the plan as concise as possible.
B	The library's information technology plan is incorporated within the library's strategic plan	The library could have successfully articulated that information technology is applied as a means to an end in supporting the broader goals and objectives and is not an end in itself	Its application may not be as thoroughly discussed as desired because it would result in an unbalanced strategic plan, with an obvious emphasis on information technology over that of other library infrastructures (collection, staff and facility)
C	The library has a separate information technology plan-involves creating a document that supplements and supports the library's strategic plan	(i) Provides the library with a mechanism to explain in detail, the technology initiatives to be undertaken to meet identified needs. (ii) Although a library strategic plan may be updated every three to five years, a separate information technology plan may be reviewed often because of the constant advances in technology	University administrators and library users would have to consult two or more documents to learn about the library's intention and implementation plans

(Culled from *Planning for Integrated systems and technologies: A How-To-Do-It manual for Librarians* by John Cohn 2001)

STEPS IN DEVELOPING A LIBRARY TECHNOLOGY PLAN

The first step is to determine who should be involved. Creating a plan is a participatory process, involving as many of the stakeholders as possible. After identifying the stakeholders, a planning or steering committee of stakeholder representatives is then convened to meet regularly during the planning process. The second step would be to carry out a needs assessment. A needs assessment essentially gathers information on what services users would like to have available from the library that they are not currently receiving. Once these needs are identified, the planning committee seeks to understand these needs through discussions and this leads to the derivation of a service-based vision statement. A vision statement is a statement of what the library wants to become while a mission statement (another piece of the library's overall plan), discusses what the library is or does. A vital point to be clarified at this point is that technology is a means to an end, not the end in itself.

The third step in planning would be to create realistic goals and objectives. This must relate to the library's strategic plan and to the larger institutions' plan initiatives. The focus of the goals and objectives must be on services and service-related applications, not the technology itself. Goals are broad statements of desired or intended long-term accomplishments based upon the statement of purpose. Technology-related goals include those that enhance services or allow new services to be offered. These would include increasing the effectiveness of existing services, such as cataloguing, indexing, or circulation control. Also improving the ability to access information that is not currently available to users; or allowing information to be located or processed in new ways. Objectives are narrower assertions of desired or intended short-term accomplishments designed to achieve a goal. For example if a library's goal is to provide access to a wide variety of databases, they would need a series of objectives indicating exactly how many, what type, and when it proposes to make them available.

The fourth step involves costing, prioritizing and implementation. These three processes are interwoven and sometimes conducted simultaneously. Costs must be determined for each objective (regardless of the level of funding available or its source); year-to-year priorities are identified because completion of the objectives will take multiple fiscal years and likely consume more funds than are immediately available; and once costs are determined and priorities

are established, an implementation plan is established. Priorities are established so that the following would be more certain; what is going to be done, when, and how much of what resources it will require.

The fifth and the last step of the process would be to determine how the outcomes of the plan's implementation would be measured and evaluated. Advances in technology are immediate and endless, hence an information technology planning document expected shelf life is not longer than three years. A library's IT plan should be closely aligned with the institutional budget process. Its annual starting and finishing dates should be identical to that of the institutions' expenditure cycle.

PLAN OUTLINE

A basic template for a library technology plan should include the introduction/overview which provides general information on the library, its services, and the overall mission. Vision statement describes how technology assists staff to carry out the library's mission and improve library services. Executive summary should not be more than 4-6 pages and highlighting major goals or initiatives would be necessary. Background and current state of technology provides an overview of how long technology has been in use in the library. Technology goals and objectives are statements outlining the anticipated achievement of various services. Evaluation of the technology plan is necessary to ensure that the goals and objectives and other facets of the technology plan are actually implemented. Plan appendices, i.e. any document related to technology should be attached.

CONCLUSION

For academic libraries to remain relevant to their user communities, library managers can only look ahead and find ways of effectively and accountably deploying the rapidly expanding technologies to enhance library services to its patrons. Even though most libraries have strategic or long-term plans and have collection development and facility plans, fewer have placed an emphasis on the need for an information technology plan. An information technology plan could clarify the technology as "means" versus "ends" argument for library users and staff. Applied as a means, appropriate information technologies of all types, not just computers, can improve services for library users and technical support for library staff. Serious consideration of information technologies within the context of a

planning process will help the library articulate a vision, publicly state a direction, and stay the course despite the numerous distractions management is faced with daily. Developing an information technology plan is a "manageable" effort.

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