Strategic Planning for New Technology in Libraries: An Outline

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Abstract

In the digital age, technology is playing a vital role for generating and disseminating information in the network environment. The digital library, consortia, resource sharing, e-documents, online databases, networking; standards and protocol, etc. paved the way for the libraries to procure the technologies in order to provide timely and relevant information to the users. Therefore the costly and complicated technologies should be procured and established in a planned manner.

Keywords : Strategic Planning, Library Services, Infomraiton Technology

0.   Introduction

The transformation of society from papyrus to written medium and from written medium to electronic medium became reality due to the application of new technology. Over the ages, the process of communication has been changed from written medium to digital medium. The information explosion and the information need, preparation of databases, access to information in the shape of network systems, have revelutionised the library and Information field. The way the scholarly information is created, distributed, and used is undergoing radical transformation. The rapid expansion of electronic information, especially the Internet, is having a profound influence on how individuals find information on library services. As the libraries move into the digital and network age, their role is constantly being challenged. Obviously, the digital revolution is seriously affecting library facilities; both existing and emerging. Library space will need to be designed to accommodate computer workstations, scanning equipment, and other user-driven technologies, as well as to accommodate network servers, and other storage and delivery technologies required to provide access to digital information. Establishing of well-equipped technology for libraries needs adequate analysis and planning.

1.   Why Planning is Required

Developing a technology plan allows a library to specify what technology-based library services it would like to provide and to relate these services to its overall service program. A plan provides a clear statement of both short and long term objectives. It assists a library in determining what the library should do, what the library shouldn't do and how the library should allocate its resources. Many libraries try to do too many things and end up doing many things inadequately instead of doing a few things well. The plan provides a vision for staff as to what services are planned for the future which can be communicated to patrons groups. The plan can be used to gain consensus among Library Board/Committee members to support these expenditures for the library's technology initiatives.

2.   Planning for Technology

Technology planning should not be viewed as an exercise dealing primarily with hardware and telecommunications infrastructure. These hardware elements must be tied in with the information technology services that the library will offer and an assurance that training will be provided so that librarians and patrons will be able to use these services.

The following factors are critical to effective library technology planning:

2.1   Decide on the process

Decide on the process, or steps to be taken in developing the plan. Plans should cover 3 to 5 year periods and should be regularly updated annually.

- *Integrate and coordinate technology planning and the library's long-range plan* – Technology planning needs to be consistent and integral with the library's long-range plan or as part of the existing long-range plan.

- Determine level of effort – how extensive are the library's technologies planning needs at this time? Planning needs may be great if a major network expansion or library automation is in the works.

- Identify who to involve in the process – how should various stakeholders be involved.

- Identify the process – develop a clear understanding of the planning process to be used. Planning can be tailored and adjusted to meet specific needs using available time and resources.

- Determine the time frame – when does the plan need to be completed? Identify the date and work backward.

- What will the plan look like? – There is no one size which fits all plan. The best plan for the library is that meets library needs with resources available and results in better service.

- Anticipate the organizational change resulting from technology – when the library implements technology it affects staff, how they feel about their work, how they relate to each other, and the organization itself. Even positive change is difficult and threatening but there are steps which managers can take to help staff through the process and ensure success.

2.2   Start with a service vision

Going through a simple group visioning process helps staff and key stakeholders to develop a shared vision or mental picture of the services that the library is planning to provide. .

- A vision …articulates a view of a realistic, credible, attractive future for an organization, a condition that is better in some important ways than what now exists.

- Through discussion and group interaction, establishes consensus about our goals, values, and actions.

- Participants' buy-in helps the vision become reality

- Provides the basis for a technology or electronic services vision statement.

- Assists and identifies the electronic services needs to be provided.

- To encourage participants to offer specific ideas about services, ask them to envision the library's menu or homepage, and describe or list the electronic services and Internet links provided.

- Facilitators lead the sessions and participants' "vision" ideas are recorded on flip charts, discussed, prioritized, and become part of the basis for plan development and a technology vision statement.

2.3   Identify services, goals and objectives

Identify and briefly describe the electronic information services the library to that will help it achieve its vision. Engage staff in learning about new services and emerging technology. Determine how services will be delivered to the users, how they will be set up and managed in the networks. The plan should articulate clear goals and objectives for using technology to achieve the library's service mission.

❖ Identify the services to be provided - Ideas generated through visioning can provide a good start. Since they are inter-related, final decisions about services to be provided depend on available technology, telecommunications, staffing, and budgets.

❖ Electronic Information Services

- Public access catalogs, circulation systems
- Other local library information systems on fixed disk or CD-ROM
- Internet access for the public
- Access to commercial databases or resources
- Dial-up access to the library's online catalog and other resources
- Access to information on library file servers
- Internet gateway service to connect users to resources at remote locations

❖ Identify the content - the specific electronic information resources and products the library will provide

- Specific local government information
- Local government data bases
- Links to information-rich web sites
- Online databases

❖ Consider how the menus and website and links look and how to make them most effective

❖ Provide electronic resources and internet services to the users on the network

2.4   Identify necessary technology

Describe briefly the technologies and strategy the library will use to provide the services. Assess existing hardware, software, facilities, and networks and identify those need to be acquired to support the proposed services. Plan and configure networks so that they can be easily up-graded. Careful planning is required here because if it is wrong, it can be very expensive to change later. An assessment is a process whereby library gathers information about technology being currently used, evaluate what needs to be procured to meet new service goals, and list all of the equipment and telecommunication services that are necessary to complete service vision. To serve library patrons; list the technology, bandwidth, and other technical specifications necessary to design a system that will meet the service vision described.

2.5   Determine telecommunication needs

Determine the levels of connectivity needed to support the planned services, technology, and networks. The bandwidth needed is largely determined by the services (especially graphical services) and products planned to be provided and the estimated number of simultaneous users. Assistance in estimating the bandwidth is available from local government, automation vendors, network integrators, consortia, etc.

2.6   Identify staffing needs and training for the users and staff

Identify how the library will acquire the expertise needed to use, maintain, and continuously up-grade networks and systems. Will the library contract for services, recruit staff, or "grow your own?" Describe how staff, volunteers, and the users will receive training. Consider how technology changes the organizations and the way they operate.

2.7   Develop an action plan / time line

Deploying new electronic services requires careful planning and accurate time-lines. Technology deployment usually involves sequenced implementation, e.g. installing cable will come first, buying PC workstations will come last. Setting activities out in a timeline allows the library to see the "trigger points" in the sequence where a program review (evaluation) should be done. This will assure a smooth transition through each phase of the technology plan's implementation. Also, be sure to build in time for staff to become comfortable with new technology. Their comfort and confidence will positively influence their interaction with the users. A Time-line is an important part of the action plan because it helps the program coordinator to manage all of the elements necessary to keep the program on track and access progress toward the objectives. A time-line will also allow the library to make accomplishment milestones that can be communicated to users and to update the technology plan to accommodate inevitable changes owing to technology advances.

2.8 Evaluation

Count the clicks (uses), clickers (users), and talk to or survey your users about satisfaction with services. The purpose of evaluation is to encourage continued and new participation in the services being deployed. To do this requires a process for measuring continuous improvement in implementation and service outcomes.

A good evaluation component will guard against the common flaws that lead to failure. Evaluation requires careful planning and should be assigned to an individual to coordinate.   Formulating an evaluation plan should involve a special task force or committee of stakeholders or a team appointed for this specific purpose. The evaluation team should determine:

- The purpose of the evaluation – Is it to encourage continued and/or new participation in the library's technology program? Is it to provide continuous improvement in service outcomes? Or both?

- The type of data to be collected – Data is costly to collect. Are you already collecting data that can be used to evaluate your program as part of an existing administrative function? If you must collect additional data to demonstrate program outcomes, plan carefully so as to maximize cost benefit.

What data do I need to collect?

The type of data, procedures, strategies and tools necessary to conduct an effective evaluation depends on answering the following questions:

- Is the evaluation driven by the program's objectives?
- Are a variety of data collection methods being used?
- Can your budget handle an outside evaluator or will it be done in-house?
- Are all the stakeholders in agreement about the evaluation plan?
- Has a reporting format been determined?

2.9   Measures Electronic Services

❖ Number of people served
  - Number of people receiving training (e.g. in use of electronic services)
❖ Satisfaction with service provided (surveying or web based sampling.)

❖ Number of library units of service provided
- Clicks - inbound server traffic
- Number of Internet workstations per capita
- Internet public access in library by outlet, yes or no?

❖ Formative Evaluation : make mid-course corrections in process and program activities if such change appears to be necessary in order to move toward the desired objectives; and

Formative evaluation data should allow for:
- comparison with baseline data
- forms the basis for activity and project change and extension and
- checks for any unanticipated side effects during program implementation

❖ Summative Evaluation : checks for progress toward accomplishing the stated mission and objectives of the technology program at the end of agreed upon time intervals.

Summative evaluation data will entail aggregating data collected through the formative evaluation and is usually presented in the form of a formal end-of-project report that seeks to:
- guide the cycle of planning for the period of time determined by the stakeholders
- suggest a possible need to revisit and deepen the stages of development
- build on the achievement of the program
- Report to stakeholders and keep them interested and committed.

2.10   Identify cost and budget

Identify the funding required for equipment, networks, telecommunications, services, staffing, training, service contracts, and consulting. Identify the funding sources (e.g. UGC, State Govt. or general fund), one-time and on-going expenditures, and if appropriate, prioritize these purchases. The library's operating budget is a plan for expending funds in one fiscal year. The Technology Plan Budget differs from the operating budget in that it projects estimated costs as opposed to an actual funding commitment.

It is difficult to develop a formula for projecting the costs of a multi-year technology plan when you're uncertain about what technology will become available and what the costs will be. Consequently, the budget section of the Technology Plan will typically express costs in broad terms, combining estimated costs into "cost centers."   The planner should identify all costs, regardless of who actually pay them. One way of forecasting future technology expenditures is to measure where the library technology funds are being spent currently.

2.11   Use the plan and keep it current:

The plan is no good if it isn't used - share it with staff, boards, and the user community. Monitor evolving technology and update the plan accordingly.

3.   Conclusion

Planning is very important for any organization/institute to set the goal by the way of work and services; library is not an exempted one. Proper planning in the digital age is very much essential, which will help the libraries to provide timely and effective services to their user communities.

4.   References

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