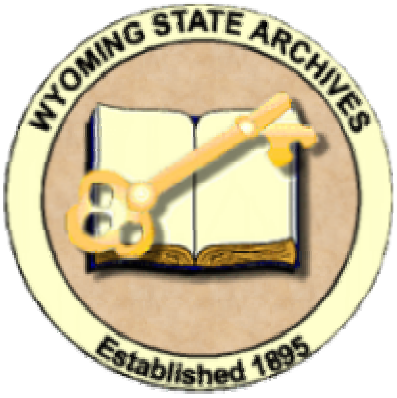
Wyoming State Archives
Electronic Records Strategic Plan



September 2003
Wyoming Department of State Parks & Cultural Resources

Wyoming State Archives
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1. Executive summary

As is so often the case in government, the Wyoming State Archives' electronic records unit has many options to consider and fewer resources than it needs. But it has the potential to build a productive and sustainable program. Through its work with its constituents in government and in the state, it has developed some promising pilot projects. As well, it can build on the successful programs of its parent agency, the Wyoming Department of State Parks & Cultural Resources; it can adapt models from other archival programs; it can seize some immediate opportunities for collaborations; and it can begin to deliver valuable products and services right away. Within its reach is a program that can support the electronic records management needs of all levels and branches of government in Wyoming, from the cities to the Supreme Court.

The foundation for that program will be the emphasis on five values, identified as the most important to the state archives and its constituents. They are:

- information as an asset
- public trust
- risk management
- education
- e-government

These values should inspire and shape the electronic records program. They can serve as the means to select and prioritize the options available. Most important, they all represent opportunities for the WSA to exploit.

Realizing these values in a program could take many forms. Not all could thoroughly be explored by the WSA in practice or even just conceptually in this plan. Even those identified here have to be categorized in terms of priorities for the short and the long term. Further, as opportunities arise and as the environment in Wyoming changes, the WSA should cast an entrepreneurial eye at these options. In that sense, the WSA will succeed if it can work simultaneously on two levels. First, the WSA should focus on those action items that will position it to support the values it espouses. It should be prepared to act on opportunities as they arise. Second, the WSA should seek to develop and demonstrate its skills through projects and partnerships that are readily at hand and quickly realizable. It should work within the window of opportunity open to it.

In the context of a volatile political and technological environment, the WSA should keep in mind that a sustainable electronic records program means that other government entities will assume some significant burdens. Realistically, that will only work if there are compelling and persuasive reasons to cooperate. The WSA will have to demonstrate the practical value of its electronic records program in order to get such support. It will have to deliver products and services which the WSA's constituents want to have and will make their own. Talking to government entities, determining their needs, meeting their needs and then continuing those dialogues to improve the WSA's products on a continuing, iterative basis will be the means to success.

2. The Wyoming State Archives

The Wyoming State Archives is part of the Wyoming Department of State Parks & Cultural Resources, situated in the Division of Cultural Resources along with the State Museum, the Arts Council, the State Historic Preservation Office and the State Archaeologist's Office. The State Archives includes these units: Archives and Historical Research, Records Management, Technical Services and Electronic Records.

In January 2001, the State Archives issued an action plan which defined its mission as: "The Wyoming State Archives exists to ensure that all citizens have ready access to the documentary resources reflecting Wyoming's history and governmental functions."[1] The plan encompassed these five goals:

- identify, appropriately schedule and manage records and information for as long as needed;
- acquire and utilize appropriate technologies and equipment to ensure preservation of and accessibility to documentary resources;
- train and educate staff and other records managers in best practices and standards;
- provide and promote responsible public access to Wyoming's records and history;
- regularly evaluate and fine tune management practices to accommodate changing technologies and governmental and public needs.

Each of these will involve information technology in some way, so the State Archives as a whole and its entire staff will necessarily be concerned with electronic records and digital information resources. Within the State Archives, though, one unit has been created to address electronic records specifically. Its mission is described on the State Archives' web site:

> Under the provisions of Wyoming Statute 9-2-401-415 the Wyoming State Archives' Electronic Records Unit is to work with state and local agencies to ensure the creation and preservation of adequate and proper electronic documentation of the agency's organizational functions, policies, decisions, procedures, and essential transactions, as well as information which protects the legal and financial rights of the government and of the state's citizenry. This is accomplished through:
>
> - Advise and educate in the creation, management, use and preservation of public records which are born digitally;
> - Identifying the problems associated with managing electronic records, special recordkeeping and accountability concerns that arise in the context of electronic government;
> - Developing and providing archival strategies for the identification, management and preservation of electronic records with enduring value;
> - Developing and providing strategies for the identification and appropriate disposition of electronic records with short-term value;

1 *Wyoming State Archives Action Plan* (approved by the Wyoming State Parks and Cultural Resources Commission on January 18, 2001), available at http://wyoarchives.state.wy.us/articles/arcplan.htm.

- Improving access to the state's governmental electronic records.[2]

The Electronic Records Unit was formed in 2002 and currently consists of two staff members. They work closely with their colleagues in the State Archives and the Division of Cultural Resources, as well as with personnel from state and local government and from the private and the non-profit sectors. Despite the unit's brief existence, it has successfully moved forward in a number of important areas, especially in education, where it has notably organized workshops and developed guidelines for its constituencies. It has also developed a pilot program for archiving e-mail and it has designed and implemented an electronic records management system within the State Archives.

2.1 Challenges and opportunities

The State Archives Action Plan directly addresses the challenges that electronic records raise:

> While the functions of the State Archives have been consistent since the inception of the program in 1957, many new factors have arisen in recent years which are driving the program in new and varied directions. The growth of government programs and services has resulted in an increase in the number of public records which must be properly managed and maintained. The advent of word processors, photocopiers, fax machines and desktop computers has geometrically increased the amount of paper which must be managed. In addition, the Wyoming State Archives must also contend with evaluating and preserving electronic records created by governmental programs. These include everything from relational databases to spreadsheets; word processing files to electronic mailings. All are records which must be managed and maintained to assure public accountability of government programs at the state and local levels.[3]

This is an eloquent description of the challenges information technology presents any archives. But, while no one can afford to ignore those problems, at the same time it is important to remember that technology offers many opportunities, not just to the agencies implementing its applications, but also to the archives that have to manage their output.

To reduce an extraordinarily complicated phenomenon to a simple generalization, the reason why information technology is being so quickly adopted is that it offers organizations and individuals the potential to realize wholly new services and products, with correspondingly revolutionary improvements in efficiency and cost-effectiveness. Technology has a special appeal for government, which, despite (or perhaps because of) current budget crises, is looking to re-invent itself. President George W. Bush's recent memo on the importance of e-government argues the case: "Government reform is guided by three principles. Government should be citizen-centered, results-oriented, and market-based. Effective implementation of E-Government is important in making Government more responsive and cost-effective … Our success depends

[2] The mission statement is available online at http://wyoarchives.state.wy.us/.
[3] *Wyoming State Archives Action Plan*, http://wyoarchives.state.wy.us/articles/arcplan.htm.

on agencies working as a team across traditional boundaries to better serve the American people, focusing on citizens rather than individual agency needs."[4]

That concept has some specific implications. One of the most important is the question of how to design the technology architecture that will support e-government. The term "architecture" covers a tremendous number of concepts and decisions; most organizations will find it challenging to define fully a technology architecture in all its aspects.[5] The question is complicated by the fact that technology will certainly continue to develop at a pace and in ways outside of the control of any state and especially any state archives. But it is clear that, if not stabilizing, then technology is at least converging on the Web. The infrastructure for the next generation of applications, and especially for e-government applications, will have the Internet as a main component. As a result, any state archives should position itself to work within and to understand that architecture. That would take the form of knowledge of and expertise with the appropriate standards, such as XML, and the pertinent principles, such as open systems and interoperability.[6]

The second implication is not technological, but cultural and organizational. Collaboration will be the key to the effective adaptation of information technology. No single organization or state agency and certainly no single state archives can do everything on its own. Despite the obvious need for collaboration, inter-agency projects and programs will not be easy to foster for a variety of obvious reasons, including financial, administrative, personal and statutory. The first order of business, then, for the Wyoming State Archives will be to find willing partners, as not every government entity will have the time or the inclination to act on archival interests. Further, because the partners in any collaboration will undoubtedly bear a significant portion of the costs of any effort, a state archives will have to define and deliver some added value to its partners in order to promote collaboration on electronic records projects. Beyond defining what that return on investment will be, state archives staff will have to learn such "soft" skills as project management and negotiation in order to make these partnerships work.

These two points are generally true for state archives, but they are particularly applicable to Wyoming, given the specific aspects of its unique environment. Considering its geographic size and the wide distribution of its population, it is clear that Wyoming has an environment that demands cooperation and collaboration. The costs of developing a specialized technology infrastructure across those distances would be especially high, so the attraction of using the Internet will be compelling. As a rule, the state will probably have to maximize the potential of any project wherever it can. Wyoming cannot afford to duplicate functions or to overlook any possibilities to get the best possible return on its investments. In that context, the WSA can promote itself and its interests most effectively if it promotes the idea that information is the

[4] President George W. Bush, 'The Importance of E-government," 10 July 2002. Office of Management and Budget web site, at http://www.whitehouse.gov/omb/egov/pres_memo.htm.
[5] For three examples of technology architectures in state government, see the work of Kansas (http://da.state.ks.us/itec/KSTAMain.htm); Minnesota (http://www.ot.state.mn.us/architecture); and Norh Dakota (http://www.state.nd.us/ea/).
[6] The application of these concepts to e-government is the subject of an ongoing project sponsored by the National Electronic Commerce Coordinating Council (NECCC). The work is categorized under the rubric of "cross boundary integration" (XBI) and has some important implications (http://www.ec3.org/).

state's most important asset. Any investment in technology will be optimized if the information it creates, uses and manages is preserved for re-use in an appropriate and cost-effective means.

3. Plan

In order to develop a sustainable electronic records program, the WSA has to understand and support the values that its constituents and potential collaborators hold. This plan analyzes those values in three ways:

- it defines and prioritizes the values;
- it specifies the action items that will actually realize those values in specific products and services; and
- it identifies the resources that the WSA and its partners will need to develop a program.

3.1 Values

In discussions with its constituents, stakeholders, potential collaborators and colleagues, the WSA has defined these values as the drivers for its electronic records program:

- information as an asset
- public trust
- risk management
- education
- e-government

Information as an asset, as noted above, is the critical underpinning to recognizing that technology is as much an opportunity as a challenge to archivists. Government invests in technology for purposes that the WSA should support; WSA programs should enhance the value of those investments. Promoting the idea that "information is the state's most important asset," and seeking ways to protect and increase the value of that asset will make the WSA a more welcome collaborator to government entities.

Public trust is an essential part of the WSA's mission. Through its promotion of effective recordkeeping, the State Archives acts to preserve the essential evidence of government and to ensure government's accountability to its citizens. As concerns about privacy, national security and fraud increasingly focus on the intersection of personal information and the sometimes frightening capacity of technology, the WSA can play an even more important role in working to promote the public's trust in government.

Risk management is a need that flows directly from these concerns. Any investment in technology represents a financial risk, as the late 90's have so impressively demonstrated. As well, any investment in technology represents a legal risk, as most laws and most bureaucracies are oriented towards and habituated to precedents and practices based on paper-based records and processes. The transition to e-government is already reaching into gray areas.

Education represents a value and a tool. As a value, it stands in contrast to a purely regulatory approach to managing change. Through sharing information and promoting a community of learning, education is a positive inducement to collaboration. Education also provides a role for the WSA to play that is congruent with its resources, in that it helps others to help themselves.

All of these connect to the last value. *E-government* is very much the wave of the future. From the local to the state to the federal level, all government entities are under pressure to re-invent and re-engineer the ways they do business. The WSA has to understand the ways electronic records will play a part in this and then has to position itself to respond to government entities as the questions and issues arise about the transition government is making away from paper-based processes and paper records.

Prioritizing these values is more difficult than defining them. The current activities of the WSA's electronic records and records management units have more closely focused on public trust, risk management and education. These, and the action items that go along with them, are less of a reach for the WSA. The values of information as an asset and e-government, though, probably represent much more potential. In terms of developing support for the electronic records unit, they are arguably more important to the state government and more closely linked to realizing a return on the investments in technology. None of the values should be neglected, however, and they all represent opportunities for the WSA to explore.

3.2 Action items

Realizing these values in a program could take many forms. Not all could thoroughly be explored by the WSA in practice or even just conceptually in this plan. Even those identified here have to be categorized in terms of priorities for the short and the long term. As well, it should be remembered that as opportunities arise and as the environment in Wyoming changes (as they certainly will), the WSA should cast an entrepreneurial eye at these options. The overall goal is not to follow this plan in some lockstep fashion, but to remain alive to the possibilities as they arise.

In that sense, the WSA will succeed if it can work simultaneously on two levels. First, the WSA should focus on those action items that will position it to support the values it espouses. It should be prepared to act on opportunities as they arise. Second, the WSA should seek to develop and demonstrate its skills through projects and partnerships that are readily at hand and quickly realizable. It should work within the window of opportunity open to it.

3.2.1 Information as an asset

This area offers some of the most immediate opportunities for collaboration with ongoing projects and active communities. The two most notable are: full participation in the Western Trails Project and forming closer relationships with the GIS community. In both cases, the WSA could begin to develop critical expertise and knowledge with information technology resources. It could take part in productive and practical projects that will result very quickly in benefits. It is important to note that neither one of these opportunities is specifically "record" related, but each

could materially help develop the WSA's capacity to work with electronic records, as both involve the use of national and international standards; both offer the opportunity of creating technology infrastructures that could support multiple uses; and both are ongoing efforts to develop collaborative communities.[7]

To supplement what it can learn from these efforts, the WSA should move quickly to apply the lessons to other and more specifically archival areas of concern. As it develops better knowledge of the technology infrastructure in place for preserving and providing access to digital information resources, it can expand on its ongoing work to collect and preserve e-mail and web pages. As noted, those represent topics of great interest to its constituents and so of great potential value to the WSA.

From the long term perspective, the WSA can begin work on and look for collaborators to support the development of the standards that will necessarily become part of the state's technology architecture for preserving the value of information. These will include standards for, among other things, metadata, metadata crosswalks, imaging, web content management and file formats. All will contribute to the state's ability to provide for the long term preservation of digital information. There are many solid models to borrow from in these topic areas, so the intellectual aspect of standardization will be relatively straightforward. The practical and organizational aspects will be more complicated. The WSA could be in a position to contribute to the development of such standards, but it will absolutely need collaborators with additional expertise and, undoubtedly, political or statutory "clout" to see them officially adopted.

Another long term effort would be the creation of an online metadata clearinghouse or repository, with a search engine that would optimize its use value. Again, this is a project that the WSA could not do on its own; it would certainly need partners with far more resources and authority than it could currently muster. But it could promote the concept through advocacy and position itself to contribute through study and analysis of the options. As well, the WSA could help to ensure the value of these tools by demonstrating the value of the informational content they would help manage. In that context, a set of appraisal tools would be a great way to show where the return on investment would be.

3.2.2 Public trust

To position itself as an expert and reliable resource, the WSA should closely study and analyze legal concepts and developments that will have an impact on the public trust. It should monitor new and proposed legislation, particularly those bills that address e-government, on both the state and the federal levels. It should focus especially on two issues that are of continuing interest to the citizenry: privacy and freedom of information. If it becomes a subject matter expert in these areas, the WSA can provide a real service to government entities as they re-engineer.

[7] For the Western Trails project, see http://www.cdpheritage.org/westerntrails/index.html. For GIS, the Wyoming State Historic Preservation Office's work is at http://wyoshpo.state.wy.us/SHPOweb2002/2002 webpages/metadata.htm.

Ideally, the WSA should articulate and package its expertise in useful educational products, such as courses and web guidelines. These can address issues both in theory (or as broad legal concepts) and as practice (in terms of specific and general applications). For example, many FOI questions particularly address access to e-mail. Both government agencies and citizens would appreciate seeing a readable analysis of this issue. Similar issues will undoubtedly come up, most probably in relation to such topics as electronic signatures, data sharing and web content and publications.

3.2.3 Risk management

There are two aspects to risk management: legal and financial. While both are extraordinarily important to government, the first is where the WSA could more quickly contribute.

As noted, the legal risks most readily appreciated today are connected to the move to e-government. Topics such as privacy, identify theft, lack of accountability and the costs of e-discovery are often in the newspapers. While these are all undoubtedly real, the WSA should keep in mind that the actual risks these pose to government entities in Wyoming are not likely to be anywhere near the scale of what Fortune 500 companies or the federal government will experience.[8] Accordingly, what state and local government need foremost are: 1) educational guidelines to the legal issues relating to electronic records and their practical, technological implications; and 2) some tools and methodologies to analyze and evaluate the risks any individual project or system might create. As, in most cases, adequate documentation of decisions and systems will suffice to meet legal challenges, an educational program to establish and teach documentation standards would be a valuable combination of items (1) and (2).[9]

Over the longer term, the WSA can address financial risks through partnerships with other organizations. The state's Department of Audit will have the principal statutory role in this area, but other archives have worked with auditors to address questions such as accountability and adequacy of documentation as organizations invest in information technology.[10] Given its close ties to the local ARMA chapter, the WSA might also consider a collaborative effort to exploring responses to financial risk through a cost/benefit analysis of document and record management applications. Government entities are more likely to purchase and use correctly such applications if their economic rationale is clearly demonstrated.

3.2.4 Education

In many areas of government, collaboration is preferable to regulation as a means of meeting new challenges and opportunities. This is especially the case in inter-agency, or cross-boundary, projects where new arrangements, technologies and standards have to be explored. For

[8] See, for example, Lee S. Strickland, "Records and information management perspectives part 1: legislative and legal developments," *Bulletin of the American Society for Information Science and Technology* 29(2003) 11-15.
[9] Minnesota's *Trustworthy Information Systems Handbook* is an example (http://www.mnhs.org/preserve/records/tis/tis.html). The NECCC's *Creating and Maintaining Proper Systems for Electronic Recordkeeping* is another (http://www.ec3.org/Downloads/2002/creating_systems.pdf).
[10] The electronic records management projects done at the Indiana University Archives most notably investigated collaborations with auditors (http://www.indiana.edu/~libarch/ER/).

the WSA to succeed in that environment, it has to emphasize the value of education. Right now, it does not have a proven model of an electronic records program to offer to all its constituents; it does have to ask for their cooperation as various options are tested and evaluated. That will only work if everyone is helped along the steep learning curve that electronic records represents.

The electronic records unit has already sponsored some workshops in this area and the WSA has a proven track record of delivering quality educational services in its records management functions. Enhancing and expanding on these products should be an immediate focus. A number of state archives have already developed guidelines to electronic records issues (e.g., Kansas, Minnesota, Ohio). The electronic records unit should review these and adapt the content most pertinent to Wyoming's environment. It should work closely with its constituents, especially at the local government level, to determine what other products are needed and then set to creating them. All the products should be designed to optimize their use with specific audiences; that is, what will effectively reach one group may not appeal at all to another, so the WSA will have to target the audiences it wants to reach.

In this regard, perhaps one of the most effective products will be case studies, offering specific and practical examples of how government entities in Wyoming manage their options. Over the long term, a more ambitious project would be case studies documenting the costs and benefits of specific technology projects. In the electronic records management field and, to a notable extent, in the technology field in general, such cost/benefit studies are rare. In the private sector, some companies, such as banks, have demonstrated how electronic transactions are far more cost effective than traditional client and teller interactions, but government entities have mostly not followed this lead, despite the compelling need for persuasive proofs of some return on the investments in particular applications.[11]

Given Wyoming's size and the way most people work, the WSA will have the most impact if it puts these educational products online. If it can provide a readily available and useful set of electronic records resources, it can provide a real service to its constituents. But it will have to do more to promote these products and to persuade others to use them. People will use these resources after they learn about their existence and are persuaded of their value. Workshops, presentations and collaborations with professional associations are all methods that the WSA needs to exploit to make its products and services known. Because of current and existing educational efforts, particularly in combination with the records management unit and with the State Historic Records Advisory Board, the WSA is in an excellent position to build on a successful program.

In general, it will be more cost-effective if the electronic records unit routinely includes some educational aspect to all its efforts; for example, if it researches a topic, it could produce an

[11] The federal government's Quicksilver projects, supervised by the Office of Management and Budget, assume savings from e-government; these are discussed at the OMB web site. The URL is http://www.whitehouse.gov/omb/egov/. Minnesota's Electronic Real Estate Recording Task Force is in the process of compiling comparative performance measurements, which will include cost/benefit analyses, as it moves forward to testing its standards, but these are not complete at this time. See the Task Force web site, at http://www.commissions.leg.state.mn.us/lcc/erertf.htm, for details. Last, and certainly not least, the final report of the State of Michigan's NHPRC sponsored project, *Records Management Application Pilot Project*, includes some sobering information on the feasibility of implementing a DoD5015.2 certified RMA in a government setting.

annotated bibliography or a report that others might use; and, if it engages in a collaborative project, it should document the effort and produce a case study at the end of it.

Overall, the WSA should keep in mind that, at this point in time, education is a function that its electronic records unit can most readily support. This is not only a sustainable approach, it is also a reasonable and welcome approach. Until the archival and records management professions have better and clearer answers to many of the questions information technology raises, government entities are most likely to resist imposed solutions. The WSA's staff can be more quickly effective in roles as educators, facilitators and advisors than anything else.

3.2.5 E-government

While e-government will not cure all of society's ills, it is undoubtedly in everyone's near future. Certain functions may never lend themselves to automation, but many, many others will. All sorts of factors will push e-government to the top of the agenda. Among these are: financial pressures to do more with less; the examples set by the private sector; the availability, with the advent of the Internet, of an affordable and familiar technology infrastructure; and the increasing acceptance of technology in the legal and business communities, as well as among the citizenry as a whole.

The WSA cannot drive e-government. The impetus will have to come from the Governor and the legislature. But it can begin to acquire expertise in the subject areas that are inevitably a component of e-government. And, as well, it can demonstrate its skills and expertise by working to automate some of its own functions.

Most e-government projects will involve cross-boundary collaboration and integration. Certain skill sets will foster these efforts and the WSA's electronic records unit should begin to develop them. Data and process modeling are a necessary part of system analysis and design. Negotiation and facilitation are the "soft" skills that will keep work groups on target. And a working knowledge of project management will be of real value.

On the technology side of the equation, e-government will inevitably demand the ability to share information across different entities and systems. Standardization will make that work. To understand the possibilities and to translate its needs into practical applications, the WSA's electronic records unit will need a working knowledge of standards for metadata and mark-up languages, such as XML. Given the WSA's experience with describing paper records, it should also consider promoting the concept of a metadata standard for government.

Finally, the best way to learn is by doing. The WSA should look for ongoing e-government projects and offer to play whatever role it can in them. It can also begin to integrate its own programs into an e-government framework. It would be a convincing demonstration both of its attention to and expertise in electronic records and e-government, if it began to automate its own records management functions. Two possibilities come to mind: the record retention scheduling process and routine management of the state's records center, as, for example, requests for retrieval of records. As well, it could develop its expertise in both metadata standards and XML by using EAD (Encoded Archival Description) to mark-up its finding aids.

3.3 Resources

Developing a sustainable electronic records program means, above all, that the WSA has to craft a plan that is appropriate to Wyoming and within the economic realities of Wyoming. The WSA currently has devoted two full time staff to its electronic records program, as well as supplementing their efforts with the attention and support of other staff members. On the one hand, this is a significant commitment for a relatively small agency in a relatively small state government. But, on the other hand, two people, even if routinely supported, cannot manage all the demands that conceivably be placed on them. The WSA and, in fact, no state archives anywhere can build and run an enterprise wide electronic records management program without the close collaboration and continuing support of other organizations and government entities.

Collaboration is also absolutely necessary for the success of this plan. Many of the action items noted here can be initiated by the WSA; relatively few can be completed without significant support from partners with more resources. This statement assumes that the state government is not likely to increase greatly the WSA's budget. Similarly, it assumes that the WSA cannot immediately re-allocate funds within its own budget on any significant scale; even if it did so, that would still not be enough because the WSA does not have a budget large enough to develop the necessary technology architecture on its own. It would also mean doing nothing but electronic records, which is not going to, and, indeed, should not happen. But whatever burdens other government entities support, as a matter of routine, the WSA will need funds for hardware and software upgrades, to allow it to keep pace with changing information technology requirements. The priority should be on technology that allows the WSA to form effective partnerships with its constituencies. The key terms would be compatibility and interoperability, the capacity to participate in whatever technological architecture the state supports.

As noted, though, that means the WSA's technology should complement what its constituents and partners have, so that it can share the information and resources available. In that context, the WSA's electronic records unit should take collaboration, externally and internally, as a given. It should focus on increasing the capacity of others to manage information technology and enhancing the value of other programs and projects, both inside and outside the Division of Cultural Resources. To do so, it has to find willing partners and it has to define projects that have clear and mutual benefits to the team members. As neither of those tasks will be straightforward and simple, the WSA's electronic records unit will have to be entrepreneurial and opportunistic, willing to make accommodations in order to get things done.

The WSA is already investing in ways to make that happen, with its current NHPRC project to develop the expertise of the electronic records unit staff by taking advantage of a wide variety of educational opportunities. The best foundation for future success will be to build on that education and move on to some practical projects. The WSA has to gain some experience and to demonstrate its expertise in order to attract partners and develop some momentum. In this context, anything is better than nothing because only some clearly identifiable successes are going to help attract additional resources.

As that potential is explored, the WSA will most likely be on its own, with the need to build a sustainable electronic records program with just the resources currently available to it. Certainly it can optimize the use of those resources. Using the electronic records staff to foster the adoption of technology within the agency makes a great deal of sense. Over the longer term, the WSA should consider the integration of the electronic records and the records management units, as this would broaden the variety of expertise and the number of staff who can work with agencies, as well as address the fact that there will be no purely paper or purely digital solution to records management in the future.

4. Conclusion

As is so often the case in government, the Wyoming State Archives' electronic records program has many options to consider and fewer resources than it needs. As well, it faces a future marked with volatility: technologies will change, administrations will change, personnel will change and opportunities will change. There is nothing unusual about that situation, but it does make the prospect of using collaboration and entrepreneurship to develop an electronic records program slightly less re-assuring.

It also emphasizes the importance of what anthropologists call "local knowledge." The WSA can certainly learn from what other archival programs are doing; it can certainly borrow and adapt tools and products others have developed; but it cannot simply copy other programs because the factors that make up Wyoming's environment are unique. The opportunities that arise, the character of the personnel and the administrations, the choices that collaborators make and the values that constituents hold, among many other variables, will be very different from the situation in other states. To increase the chances of success for their electronic records program, the WSA's staff will have to get to know their potential partners as close as they can. Any means to meet and learn about other government entities should be exploited. In that context, an educational program has even more value, as it provides the WSA with the continuing opportunity to get out in front of the issues.

At the same time, the WSA will have to demonstrate some practical expertise with information technology. The best advice is to start with manageable projects, which are often internally based. As the electronic records program will develop in an incremental and iterative fashion, the WSA should not wait for the most opportune moments, but just simply start something. It can then learn as it goes, with the goal of evaluating and adapting its program in the process.

Overall, the WSA should keep in mind that, for the most part, a sustainable program means that other government entities will assume some significant burdens. Realistically, that will only work if there are compelling and persuasive reasons to cooperate. If the WSA keeps the values articulated above in mind, it will have a variety of options to consider. As it explores each project and each partnership, it can determine which are most successful and then work to improve its products and services on an iterative basis.

Appendix: electronic records plan matrix

VALUES	PROJECTS	RESOURCES	PRIORITY
Public trust			
Legal mandates, evidence and accountability; trustworthiness.	Create guidelines: email, web sites, official correspondence. Automate records management functions. Study, review new laws. Study, analyze privacy, FOI issues	There is an immediate demand for these guidelines and adaptable models exist. Automating the records mgmt functions would be an excellent way to gain skills.	*Short term*
Risk management			
Legal protection, evaluation and assessment. Cost/benefit analysis	Create risk analysis tool/methodology. Establish systems documentation standards and performance measurement standards. Develop ERM cost/benefit analysis tools.	WSA staff should learn more about systems design, modeling and documentation. Beyond adapting guidelines from other states, the WSA should develop more experience and establish the appropriate partnerships before going too far into this subject area.	*Long term*
Information as an asset			
Return on investment, history and heritage, re-use, access, delivery	Develop standards: metadata, metadata crosswalks, imaging, web content management. Develop appraisal tools. Collect, preserve email, web pages. Collaborate with GIS community. Join the Western Trails project. Study/create metadata clearinghouse/repository.	Developing standards demands many partners and official support. WSA has to develop its own IT expertise - GIS and Western Trails appear the best bets. WSA should start with these and learn by doing. Build on the current email project and add web pages to the mix. Building a metadata repository demands partners and a good search engine.	*Short term*
Education			
Continuing need for education, both internally and externally to the WSA.	Put guidelines online. Develop courses. Promote ERM, ERM program. Create audience oriented and defined products. Develop case studies	Education is a basic and sustainable component of the program. Good chance of NHPRC support for developing these products, if the grant includes some education for the profession (e.g., other archivists, SHRAB).	*Short term*
E-government			
Wave of the future, re-engineering of organizations and functions.	Contribute to an enterprise architecture. Develop standards. Join e-government pilot projects. Promote, learn about, and apply XML.	The Governor and the state CIO have to make this work. The WSA can position and prepare itself by developing standards, expertise and educational products. The key is to keep in touch with the decision makers.	*Long term*