Any Time, Any Place, Anywhere

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Abstract

Last year, the Royal Commission on the Historical Monuments of England carried out a review of its Information Systems Strategy. After consultation, it prepared a new strategy which it hopes will guide the future use and development of its Information Systems and Information Technology to support the changing business needs of the organisation. The first section sets out to describe the processes which were used to conduct the review and it also presents a few of the review's key findings. The second paper represent the new strategic statement itsel

1.1 "A lust for"... information

The clichéd title of this paper was chosen somewhat arbitrarily several months ago to serve as a way of expressing a perception held by some people of the world we live in today. According to this particular perception we appear to possess an insatiable lust for information, similar to the "lust for life" which Irvine Stone attributed to Vincent Van Gogh in his book of the same title. Another way of expressing this ravenous desire might be to say that collectively we have a need for information at any time, from any place, held anywhere, which is not constrained by such things as differences in: time zone, language or technology.

I strongly suspect that this perception - of people not being able to go about their daily lives without continual reference to information - is one that is held more passionately by the companies that sell information services and equipment than by the people who use and pay for them.

There is, however, a ring of truth to this perception. For instance, how many of us have found that networks, such as the Internet, have provided us with access to information we might have found hard or even impossible to obtain by other means?

The title, "Any time, any place, anywhere", is also meant to act as a reflection on the findings of a review which the Royal Commission conducted recently of its IS strategy. The rest of this paper describes the processes which led up to the preparation of a new statement of IS strategy and the following paper represents the Statement itself.

2 A recent IS Strategy Study

During the winter months of 1997, the Royal Commission carried out a review of its current IS Strategy and, after consultation with staff, it prepared a new strategy to guide the future use and development of Information Systems and Information Technology to support the changing business needs of the organisation.

In essence, the study tried to address three simple questions:

Where are we now with our IS?

Where do we want it to be in the future?

How do we get there?

The first two questions were addressed by the Statement of IS Strategy in the following paper and the third was answered by a separate IS Implementation Plan.

The work of the review was controlled internally by three management teams: an in-house Study Team was appointed to plan and carry out the review; a Strategy Board of senior staff watched over the Team and picked up on the wider issues as they emerged; and a User Group acted to assure the quality and accuracy of review findings.

Consultants were used sparingly during the process - mainly to help increase staff awareness of new and emerging technologies and to assist in the production of a set of technical scenarios which would serve as a guide to identifying the alternative ways in which the Commission might develop its technical infrastructure in the future.

2.1 Conducting the IS Strategy Study

During the course of the review, the Study Team conducted a series of 35 interviews as a means of understanding what people actually did at the Royal Commission - as opposed to what the organisation thought they were doing - and to find out how they were using their Information Systems, what improvements they wanted and what new facilities they required.

The information gathered from these interviews went through a number of analytical stages before it began to provide answers to the above questions. During the course of these stages, the study threw up a number of observations about how the organisation worked and two examples of these may be of interest to others engaged in similar studies. The first is an example of the duplication of effort to get things done and the second an example of not enough effort being applied.

2.2 An example of the duplication of effort

Following a recent major structural reorganisation, which took place just before the study commenced, the Commission was keen to eliminate any areas of duplication which might still exist where, for instance, staff were still carrying out some of their former duties as well as their new

ones. A series of business models, which were constructed as part of the study, were particularly good at highlighting where duplication was still occurring and so, using the interview results, a table showing business teams mapped against business functions was set up to show the areas of overlapping activity, so that they could be eliminated.

Some duplication is necessary, even in the most streamlined of organisations. The banking institutes, for example, have to duplicate certain elements of their business in each of their high street branches in order to provide a nation-wide service. The Commission does the same in its regional offices.

2.3 An example of not applying enough effort

When the Study looked at which parts of the organisation were responsible for dealing directly with the outside world a surprising picture emerged. Out of the 35 people who were interviewed, 19 of them said that their staff dealt with enquiries from members of the public but only 6 of them kept a formal record of the enquiries. So the indicators that the Commission was using at the time to measure its public enquiry service were based upon incomplete data. This has since been put right.

2.4 Conclusions

Returning to the title of this paper, maybe another way of stating this need for access to electronic information "any time, any place, anywhere" is to rephrase it in terms of the underlying technology and state it as a need to access "any data, through any application, using any interface". With its new IS Strategy in place, the Commission is now turning to the task of developing a new technical infrastructure which will be flexible enough to support the many needs of the organisation, both now and in the future.

The Commission believes that if it is to survive in the modern business world it must change the way it works and the way in which it promotes itself, and it must turn its Information Systems outwards to help it to reach a wider audience.

3 Information Systems Strategy Statement

"In recent years we have seen an enormous interest and enthusiasm for the documentation and protection of our historic environment. The Royal Commission on the Historical Monuments of England (RCHME) has a central role to play in making information available to the public, satisfying the demand for knowledge as well as creating a climate of understanding in which historic monuments can continue to flourish for future generations". Lord Faringdon, Chairman (RCHME 1996, 2)

3.1 Introduction

RCHME collects, manages and disseminates information on the archaeological landscape and built heritage of England. It collects information through programmes of research and survey; it manages information through the administration of the inventory and collections of the National Monuments Record; and it makes information available through the provision of publications and public search facilities, through personal contact and through the exchange of digital information.

Over the years the Royal Commission has invested heavily in Information Systems (IS), primarily to help it collect and manage records, and in the future it aims to realise that investment by directing its IS focus towards the better provision of information resources to a wider audience.

3.1.1 Purpose of the IS Strategy

The purpose of the Commission's IS Strategy is to direct the use and development of Information Systems in support of the current and future business needs of the organisation and the purpose of the IS Strategy Statement is to inform people what the strategy is and how it can be achieved. The Statement was prepared as part of a recent IS Strategy Study conducted between September 1996 and March 1997 (RCHME 1997a), using, where appropriate, the CCTA guidelines described in *Strategic Planning for Information Systems* (CCTA 1989).

3.1.2 Scope of the Strategy

The scope of the Strategy covers the Information Systems used in all RCHME business areas. The Statement is intended to remain in effect for the Strategic Plan period 1996-2001.

3.2 The Statement

3.2.1 The business environment and its future direction

The business of the Royal Commission as defined in its Royal Warrant "is to compile and assess, curate and make available the national record of England's ancient monuments and historic buildings for the use of individuals and bodies concerned with understanding, interpreting and managing the historic environment" (RCHME 1996, 1).

In 1995 Virginia Bottomley, the Secretary of State for National Heritage, confirmed that the primary function of the Commission is to make available the record of the historic environment which "must serve those involved directly in preservation and management as well as those who simply want access to the record for education or pleasure, both now and in the future" (RCHME 1996, 24).

The Commission considers that, in order to satisfy the requirements of the Royal Warrant and the wishes of the Secretary of State, its core activities must be:

1. to ensure the maintenance of, and public access to, the dispersed national index of the historic environment on a national basis;
2. to coordinate national policy for heritage archives and to curate core NMR collections of national importance;
3. to coordinate the definition of the national research agenda for the historic environment.

RCHME is a major supplier of heritage information and is unique in the national coverage it provides. It is committed to delivering a service which is of benefit to the community

and it has recognised that in order to survive, it is having to face up to the rigours of the modern business world. Demand from customers is forcing it to broaden its range of products and to raise its standards of service, while pressure from Treasury to reduce public spending is forcing it to examine new sources of funding, including: tapping into revenue streams, bidding for lottery money, and exploring the benefits of joint ventures, partnerships and Private Finance Initiatives (Newchurch 1996).

3.2.2 Current status and contribution of IS

RCHME believes that IS has a major role to play in helping it to achieve its primary business objective of providing heritage information.

In the past, provision of IS within the Commission has tended to focus on the management of records. Several single-function databases were developed in the 1980s to support a variety of tasks including the emergency recording of listed buildings, the processing of orders for photographic work and the rectification of aerial photographs. In 1990, when an IS Strategy Study found that "the data held by RCHME is not unified in the way that the Commission's current and future clients would wish" (ORACLE 1990,1-3), the Commission responded by developing the MONARCH system to provide a means of sharing information across internal business areas and to replace many of the smaller databases. Some local authorities adopted MONARCH to manage their own Sites and Monuments Records.

National and international data standards for the management of heritage information have been developed from the MONARCH data model, and reference data from MONARCH word-lists and thesauri have formed the basis of recommendations for vocabulary control within electronic records.

In 1993 Peter Brooke, then Secretary of State for the DNH, introduced the Heritage Management Programme and as a result of this RCHME computerised the statutory lists of historic buildings in collaboration with English Heritage and DNH.

Over the years the Commission has automated the way in which it captures data in the field and it currently makes extensive use of modern technology, including electronic distance measuring (EDM), global positioning (GPS) and computer aided design (CAD) to help speed up the work of surveying and preparing maps and drawings.

The Commission is aware that while the above systems serve collectively the needs of records collection and management there is an urgent need to build and integrate these systems so that they can better support the sharing of information with professional colleagues.

The Internet is already being used to increase awareness of the work of the Commission and a major area for future development will be the provision of remote public access to the Commission's information resources.

3.2.3 Vision of the future use of IS

The RCHME Strategic Plan recognises that our knowledge and understanding of the archaeological landscape and built heritage will advance only through survey and the curation, interpretation and dissemination of recorded information by RCHME and others.

RCHME will ensure that, through this strategy, its information systems will:

1. support the creation, management and dissemination of NMR record resources
2. support the capture, analysis and interpretation of information on structures and landscapes in England and its territorial waters
3. assist in the dissemination of information to aid the understanding of those directly involved in preservation and management as well as those who need access to the record for education or pleasure
4. interface with the survey and recording activities of others for the mutual good of our understanding of archaeology and buildings
5. underpin the exemplary role of RCHME in survey techniques and in setting standards for the records of others, including text, drawings, spatial data and images
6. improve the efficiency of the business, particularly in the areas of: improving the flow of information within RCHME and between it and other bodies, increasing staff productivity and reducing administration costs

3.2.4 The way forward to achieve the 'vision'

The way forward to achieve the vision is set out in detail in the IS Implementation Plan (RCHME 1997b), but the broad areas in which the Commission will improve its IS are listed below:

management of information: the development of better systems to help it to manage the inventory and to clean and make consistent its records; and to catalogue and manage the growing collections of both conventional and digital materials;

information gathering: making improvements in the range of software currently used to help identify, interpret, survey and record the sites, buildings and landscapes of England;

information dissemination: the provision of better access to information for people both for visitors to the public search rooms and for people using remote access; automation of the production of publications and reports; and making use of visitor information to help provide a better response to customer demand;

supporting technology: the enhancement of the technical infrastructure to provide for a more unified approach to management of information; the development of a common user interface for the use of everybody wishing to access systems and multimedia information; the setting up of the data communications networks needed to support remote public access, electronic mail and electronic data exchange facilities;

information standards: joining with others to set standards for the collection, management, exchange and dissemination of information;

RCHME Strategic aims (RCHME 1996)	IS Strategic aims (RCHME 1997a)	IS objectives (RCHME 1997a and Amtec 1997)
To fulfill the terms of its Royal Warrant, RCHME will:	RCHME will ensure that its Information Systems will:	The broad areas in which RCHME will improve its IS are:
compile, maintain and curate the inventory and collections of the NMR as the national record the historic environment	support the creation, management and dissemination of the record resources of the NMR	information management: development of better systems to manage the inventory, to clean and make consistent its records, to catalogue and manage collections of conventional and digital materials
identify, interpret, survey and record sites and buildings of archaeological and architectural interest in England and its territorial waters, including the statutory recording of threatened buildings	support the capture, analysis and interpretation of information on structures and landscapes in England and its territorial waters	information gathering: making improvements in the range of software tools currently used to help identify, interpret, survey and record the sites, buildings and landscapes
promote the use of the Commission's work and the contents of the NMR through public access, information remote services, research and publication, anticipating and responding to the need for expert information, synthesis and advice on all aspects of the archaeological and architectural heritage	assist the dissemination of information to aid the understanding of those directly involved in preservation and management as well as those who need access to the record for education or pleasure	information dissemination: provision of better access to information both for visitors to the public search rooms and for people using access; automation of the production of publications and reports; and making use of visitor information to provide a better response to customer demand
develop the technologies necessary for the recording, management, retrieval and dissemination of heritage information at a national level and beyond		supporting technology: enhancement of the technical infrastructure to provide for a more unified approach to the management of data; development of a common user interface for the use of everybody wishing to access the systems and multimedia information; setting up of the data networks to support remote access, electronic mail and data exchange
collaborate with others in all appropriate ways to enhance the understanding of the archaeological sites and historic buildings of England, for the purposes of education, planning and protection	interface with the survey and recording activities of others for the mutual good of our understanding of archaeology and buildings	
cooperate with others in establishing, maintaining and encouraging national and international standards in investigation and interpretation, and in documentation of the heritage	underpin the exemplary role of RCHME in survey techniques and in setting standards for the records of others, including text, drawings, spatial data and images	information standards: joining with others to set standards for the collection, management, exchange and dissemination of information
	improve the efficiency of the business, particularly the areas of: improving the flow of information within RCHME and between it and other bodies, increasing staff productivity and reducing administration costs	management support: development of systems to provide executive information for managers to help them control and deploy resources more effectively; and establishment of a library of business information to help the Commission to recognise and exploit business opportunities

Figure 1. IS objectives set against the business and IS strategic aims of the Commission

management support: the development of systems which provide executive information for managers to help them control and deploy resources more effectively; and the establishment of a library of business information to help the Commission in the task of recognising and exploiting business opportunities. (RCHME 1997a and Amtec 1997).

These improvements to IS can be seen in context, set against the business and the IS strategic aims of the Commission, in Figure 1 at the end of the this paper.

For the Commission to achieve the aims of its IS Strategy it will:

1. provide a management structure to control, plan and implement the strategy
2. set the policy, standards and procedures needed to develop, manage and use IS
3. identify the resources needed to build, operate and maintain the systems
4. harness the technologies needed to construct them

The Commission is committed to taking on new challenges and in particular to the delivery of information systems which will serve the needs of the heritage community of the future.

3.2.5 Business Benefits expected to accrue from IS

The Commission considers that by aligning the provision of IS to the needs of the business it can improve the services and products it offers to its customers and professional colleagues and it can also make efficiency savings in the way it conducts its business. The likely benefits from doing this can be seen as improvements in the following areas:

services to the public: the provision of better quality information, the faster processing of orders, and the quicker delivery of products and remote access to services;

collaboration with others: the sharing and exchange of information with professional colleagues and their willing participation in joint ventures which are of mutual benefit;

revenue generation: the use of electronic methods to help in the promotion of goods and services, in responding better to customer demand and in exploiting business opportunities;

operational effectiveness: the harnessing of IS to help improve internal flows of information, the delivery of executive information and the management of resources.

By making all of these improvements the Commission believes that it can increase its potential of generating the funds needed to carry out its programmes of work and so increase its chances of succeeding in achieving strategic business objectives.

3.3 Management of the Strategy

3.3.1 Responsibility for strategy progression

The management structure needed to set and progress the strategy consists of three management groups:

1. an IS/IT Strategy Board to act as controlling authority for the strategy and IS planning cycles, to initiate strategic studies and reviews as appropriate to provide the overall direction for IS;
2. an IS Committee to set policy, standards and practice, to manage the execution of the IS Implementation Plan and to manage the resources allocated to it by the Strategy Board;
3. an IS User Management Committee to provide quality assurance for new initiatives, to administer user acceptance testing, to control the applications change process and to act as a forum for users.

Responsibility for executing the implementation plan of the strategy lies with the Information Services and Development Division.

Bibliography

Amtec, 1997 Technical Consultancy Report.
CCTA, 1989 A2 Strategic Planning for Information Systems, The Information Systems Guides, CCTA, John Wiley and Sons
Newchurch, 1996 Funding Consultancy
ORACLE, 1990 Information Systems Strategy Study
RCHME, 1996 Strategic Plan, RCHME
RCHME, 1997a Deliverables of the IS Strategy Study
RCHME, 1997b IS Strategy Implementation Plan (forthcoming)

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