Developing content frameworks for intranets with information audits

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1. **Intranets – the lessons so far**

   There are a number of very successful intranets where the impact on the effectiveness of the organisation has been evident. Our experience is that these intranets are the exception, rather than the rule. The vast majority of intranets have been set up with an inadequate examination of objectives and resources and, as a result, the level of use is disappointing. All too often intranets are populated with whatever content could be easily converted to an HTML format, such as internal procedure manuals, telephone directories and staff newsletters.

   Trying to learn from the successes and failures of others is possible in the case of designing Web sites, as the evidence is available for all to see, and the metrics of success are easy to measure, even if interpretation is more difficult. Although some companies have arranged study tours of intranets, and there have been a few conferences about intranets, it is very difficult to convey to an external audience just why certain content has been effective in a given organisation. An intranet, to be successful, needs to be embedded within the corporate culture far more than the corporate structure, and in many cases the success is a factor of internal 'champions' and being able to take advantage of a particular situation (perhaps the loss of a major project) to move an intranet forward.

   An option that we have used with a number of our clients is to conduct an information audit for the organisation, and this article outlines the basis of our approach. Information auditing is not a novel concept. Horton and Burke developed their information mapping methodology in the mid-1980s within the context of information resource management (Burke and Horton 1988). Since that time a number of approaches to information audits have been developed, and these have been critically reviewed by Buchanan and Gibb (1998). At TFPL we are still developing our approach to information auditing, and this article is designed as a report of work in

progress on how we see information audits having a critically important role to play in establishing the content of an intranet, and of evaluating the performance of the intranet. We would welcome comments and suggestions.

2. Value of information

As the rapid development of information and communications technology has changed the basis of trading and doing business, information has become the competitive resource for all organisations. Whether an enterprise perceives itself as a 'learning organisation', a knowledge-based enterprise, an innovative and creative company, or simply one that is looking for a return on its investment in IT, information underpins its business. It is the utilisation of that information by staff and management that creates and maintains its place in the market and determines its success in both the private and public sector.

Although the value of understanding and managing corporate information is not new, the recognition of that value is surprisingly recent. Web technologies provide the means to publish and distribute information throughout the organisation – but what information, and to whom? The emergence of a knowledge economy is gradually alerting economies to the value of intellectual assets – but what are corporate intellectual assets, and who is managing them? Organisations are now beginning to put in place strategies to ensure that they create, capture, manage, protect and utilise their information and intellectual assets. Just what that information is, and how intellectual assets are created and used is what an information audit is all about. Information strategies are beginning to take their place in the business plan beside market, product and resource strategies, and an information audit is a precursor to defining the strategy (Figure 1). The audit identifies key information resources, their impact on the business, the flow of information in and out of core business processes, and the intellectual assets that need to be protected and exploited.

Figure 1 Information audit in context
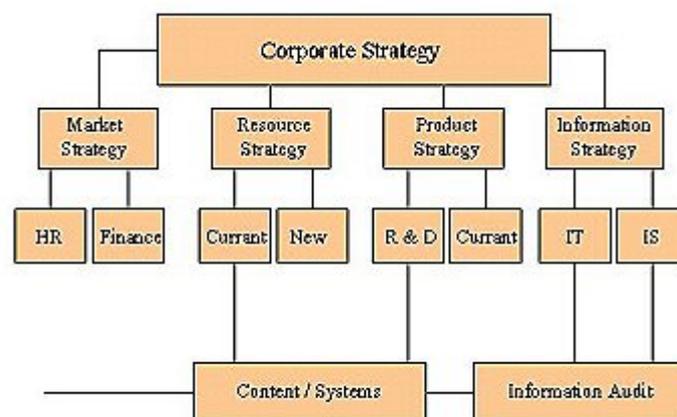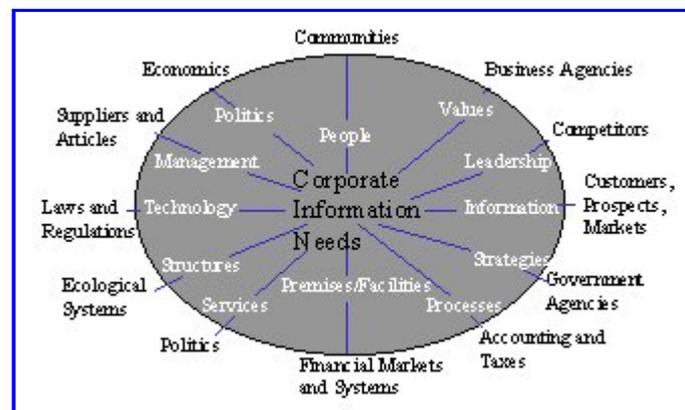

3. What is an information audit?

An information audit is a process that identifies the information needs of business processes and, through that analysis, the information needs of departments and individuals, and draws a map of the information assets of the organisation.

It can also develop the organisational understanding of:
- o Where and how information is created
- o Information flows, use and bottlenecks
- o Information gaps and duplication
- o Information quality, impact and value
- o How well information is managed to meet legal and contractual requirements
- o Effect of technical platforms and organisational culture on the use of information
- o How information is being managed in support of business objectives.

An information audit helps an organisation understand the complex array of internal and externally sourced information which underpins the organisation and where business benefits can be gained through improved management, distribution, or control (Figure 2).

Figure 2 Complex information (click on image for larger picture)

4. **Value of an information audit**

The benefits of an audit include:
- o Making the information infrastructure explicit
- o Scaling the information process
- o Identifying organisational issues affecting flow
- o Relating investment in intranet content to business benefits
- o Providing a benchmark for measuring success and impact
- o Promoting awareness of the value of information and staff relationships

An information audit has strategic and tactical outcomes. The audit exercise itself promotes organisational awareness of information and identifies organisational issues affecting information utilisation. It also begins to develop an information 'consensus', and establishes a baseline against which the organisation can benchmark its progress.

It can have tangible benefits by identifying cost savings through an improved understanding of the costs and value of information, the reduction of duplication, improved quality of information, and better use of existing information assets. Cost savings are, however, seldom the most persuasive arguments. More valuable can be the changes that ensue from improving the understanding of information and its potential, changes that prevent the repetition of mistakes and duplication of work, support and facilitate cross-functional working and the sharing of good ideas which maximise intellectual assets.

An information audit also enables intranets to be designed with content that:
- o Really makes a difference to the business
- o Is crucial to business processes
- o Makes the job easier, more effective and more interesting
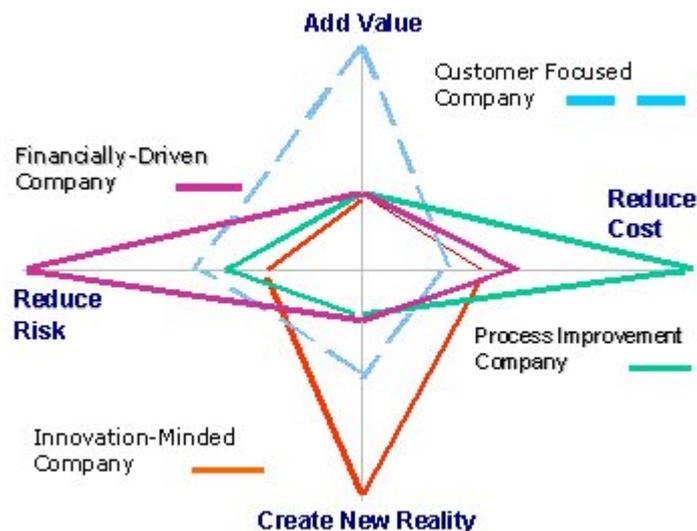- o Enables everyone to contribute.

Another important benefit is that it enables issues of content management, especially resourcing implications, to be addressed at an early stage in the deployment of an intranet. Further, if the audit is repeated on a regular basis, then the impact of the intranet on business effectiveness can also be assessed. We put the emphasis on effectiveness. Too many intranets are justified on an efficiency basis, with complex ROI calculations which, in isolation, are of little value. The true measure of an intranet is its effectiveness in supporting the attainment of the objectives of the organisation.

5. **Undertaking an audit**

An information audit is a business process, not an intellectual exercise. It has to be planned with regard to the balance between what is desirable and what is possible within a realistic timescale and available resources. It should also not be a one-off process, but should be repeated (in part if not in its entirety) on a regular basis in the future. The business objectives and resulting business processes can change very rapidly, and the audit frequency needs to reflect the rate of change. An audit should therefore put in place a methodology by which an organisation can monitor the effectiveness of its information strategy. The outcomes of an audit must have identifiable business value if sufficient resources are to be made available to the audit process.

The first stage is to convince management and stakeholders that an audit is desirable if not crucial. And the key to this is to be clear about the objectives of the audit and of how they align with the objectives of the business. A good understanding of the focus and drivers of an organisation, and the implications these have for their use of information, will enable an audit to have a clear and recognisable business purpose and impact. Professor Donald Marchand (1997) of IMD, Lausanne suggests that all organisations compete with information and the way they do so can be aligned to the focus they have (Figure 3). The points on the quadrant indicate potential strategic foci of a company and a company information profile can be drawn by assessing the extent of the focus on scales along the vertical and horizontal axes.

Figure 3 Focus of organisations that compete with information

Add Value
Customer Focused Company
Financially-Driven Company
Reduce Cost
Reduce Risk
Process Improvement Company
Innovation-Minded Company
Create New Reality

An organisation whose main driver is containing or reducing financial risk will focus on different information resources than one with a focus on building partnerships with its clients and suppliers. Innovative companies will build different intellectual assets to that of a process improvement organisation. No organisation is entirely driven by one area of the quadrant and few have an equal balance, although most organisations have some interest in all areas and are increasing their focus on customers and innovation. The objectives of an audit should be to leverage the information that underpins the business drivers and, in particular, in the common area at the centre of the quadrant, which will potentially have the maximum business value. The objectives of the organisation are not to understand its information flows, but to achieve business goals.

In our experience many intranets do not support the balance of these business objectives. In a pharmaceutical company the intranet focus was towards innovation, and the support of the discovery and registration process. The business objectives of the company were to increase sales and profit margins and, as a result, the investment in the intranet was largely wasted, and probably of greater importance was that employees were confused about the business strategy of the company and frustrated by the mis-match between the objectives they had set and the information resources that had been made available to them.

During this stage the focus of the audit will be determined by the management style and strategy of the organisation. Focusing on people and their information needs, or those of their departments, is the traditional approach. This approach seeks to answer questions such as:
   o What do you do, what are your key tasks?
   o What information do you need and how important is it to you?
   o What information resources do you use and how reliable is it?
   o How easy is it to obtain, and who keeps it?
   o What information does your department create/keep?
   o Who 'owns' it and controls the quality?
   o Who uses it?
   o What is its value and what does it cost?

An alternative and increasingly effective approach is to focus on business processes and the information that flows in, through and out of each process. This approach requires that the organisation has defined its processes, or are at least receptive to them being defined. Processes can be used in all organisations and all departments, as the examples demonstrate (Figure 4).

Figure 4 Process example – drug design
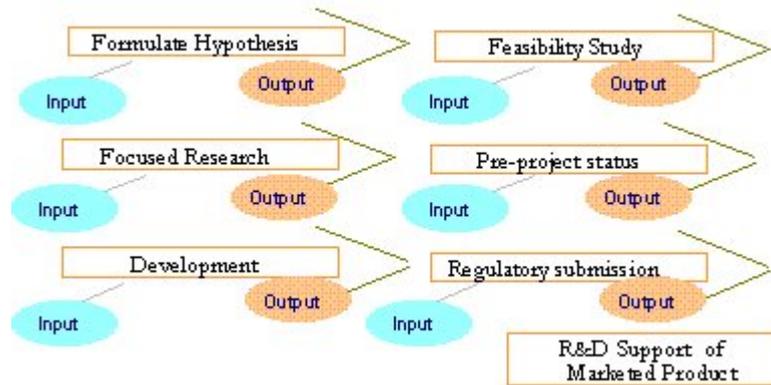
In our view the business process approach is the most appropriate approach for an audit to establish the content requirements of an intranet: The approach
- o Identifies core business processes
  - ▪ Core and enabling processes
  - ▪ Customer facing and production
  - ▪ Regulatory and transformation
- o Follows through process maps
  - ▪ Identifies inputs and outputs at each stage
- o Identifies process links.

It addresses questions such as:
- o What information does the process need – in what order and what for?
- o Where does it come from?
- o Who creates, owns and controls the quality?
- o What is the value to the process?
- o What does it cost to maintain?
- o How easy is it to use and obtain?
- o What happens next? What information is produced by the process?
- o Is it used by other processes? If so, which?
- o Are there feedback loops?

Selling the concept is crucial, but planning ensures that the objectives are achieved. The first stage, having defined and agreed the objectives, is to clarify the scope. Scope will define geographical coverage, the extent of the organisation to be involved (the entire organisation or a business unit) and the functional coverage of the audit. An information audit has to take into account all the areas that affect information flow or use. This takes in technology infrastructures, organisational culture and processes and communication strategies, and it is easy to stray a long way into these areas. A clear definition of the boundaries of an information audit is necessary to ensure that information collected remains usable, although the process must identify barriers caused by organisational issues.

Part of the scoping phase includes decisions about whom to involve and this will reflect the objective of the audit, the people who need to be influenced by the audit and resources available.

Selection of the audit team will reflect decisions about scope, timescales and resources, but there are other considerations. There is often a decision to be made between coaching an internal team and commissioning consultants, with pros and cons to both approaches.

An internal team will have the advantage of knowing the organisation and its culture, but that may make it difficult for them not to approach the audit with pre-conceived ideas. Similarly, they may know the people in the survey well and be able to use appropriate language and context, but may then find it difficult to remain objective. An internal team will need releasing from other commitments and training in audit techniques, but this may provide personal development opportunities. The team will need a mix of skills and roles, including project management, negotiation, interview techniques, analysis and reporting skills. However, a large internal audit will always be susceptible to changes in audit team as people change roles or leave the organisation.

An external team will bring objectivity, but may need time to learn the business. They will be experienced in audit techniques, but will need to adapt these to the organisation culture. They will apply a consistent approach and tried and tested analysis tools, but the expertise and methodology may not be transferred into the organisation. They will have dedicated time but they cost visible money.

The ideal solution is a partnership between the two, with the extent of external involvement reflecting the experience and resources available internally. Even without this partnership one outcome of an audit should be repeatable audit tools and techniques.

6. **Tools and techniques**

The techniques used in an information audit are similar to those used in other surveys and research. They are a mix that will:
   o Allow opinions and data to feed in from all relevant staff, irrespective of level
   o Support analysis
   o Be consistently applied
   o Allow clear communication between participants
   o Be repeatable and reproducible
   o Require minimum additional staff involvement.

As with all surveys, the golden rule is to consider the analysis and required outcomes before designing the data collection tools; and only to collect data that can be used. It is very tempting to collect a great deal of fascinating but unusable information. The balance between quantitative and qualitative data is important to keep under review.

The process is almost always a mix of interviews, questionnaires, group discussions and focus groups. Initial semi-structured interviews with key people to establish core processes and information issues enable further data collection tools to be designed. Questionnaires, whether hard copy or electronic, will suffer from poor response unless well designed and targeted, and even then may be a casualty of questionnaire fatigue. Group discussions are particularly productive in that they stimulate ideas and uncover hidden problems. Walk through, observation and survey of records can all contribute to the data if the technique is appropriate to the organisation and situation. The choice and balance of techniques will be determined by the nature of the organisation but there are a number of common rules.

Whatever data collection techniques are selected, the audit concept needs to be sold to the participants and, if it is an internal team, to the audit team. There needs to be, therefore, a careful communication plan about the audit, its objectives and planned outcomes, and feedback on progress must be included. The audit process will raise, or depress, expectations about future information management and availability and if carried out successfully will pave the way for change. These expectations need to be

carefully managed. Employees will expect to see some immediate changes as a result of the audit and the extent to which this may be possible needs to be borne in mind when deciding on the overall scale of the audit.

One of the benefits of the process approach is that it does enable some boundaries to be put around the audit, and benefits can be quantified by some measure, even if indirect. If the intranet is designed to support customer service staff, then a survey of customers should indicate an improvement in satisfaction with the way that the call was handled.

7. **From audit to action**

A component of every audit plan should be the an exploitation plan. At the commencement of the audit this may not be possible to delineate in detail, but as the audit progresses the options for action should become clearer, and indeed it may be possible to take action even before the audit is completed and documented. This could be putting up some sample pages on the intranet to gain feedback towards the end of the audit.

We have also found it of benefit to report back to our clients verbally before writing the detailed report. This enables us to be sensitive to the words that need to be used in the report. An information audit will inevitably cause a change in the awareness of information values, and of the benefits and challenges of a more open and yet more structured approach to information exchange, and the report needs to be sensitive to this.

8. **Conclusion**

All the forecasts about intranet adoption indicate that over the next five years they will be as ubiquitous as a local area network, given that most local area networks will support an intranet. On the basis of our experience to date it seems likely that many of these intranets will fail to meet the objectives set for them because of an inadequate understanding of the use of information in the organisation. Even the most basic information audit could have a beneficial impact on the situation and, as a result, have an impact on the commercial competitiveness of the company and thus the economic growth of a country.

At present the majority of information audits are carried out by independent consultants, but the rate of growth of intranet deployment is such that the demand is greater than the supply of consulting expertise. For this reason TFPL are developing some audit methodologies that will enable much of the data capture to be carried out either on the existing intranet, or on our Web site. In addition we have developed a two-day training course on information auditing.

We have set out in this article, for the first time, our current approach to using information audits to support effective intranet deployment and would invite comments and suggestions.

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