Building an Intranet content management strategy

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A step-by-step guide to the principals of creating content management processes and resources for Intranets, this article covers the creation of aims and objectives for Intranets, information management issues specific to Intranets, and how to turn those objectives and issues into working content management procedures.

Intranets: managing the unmanageable

Intranet content management is an issue more often discussed than implemented. Good content management is simply the allocation of resources and processes to ensure that the right information is available, easy to locate, and easy to access, while the wrong information remains absent. The key difference between managing an Intranet and any other large information resource is that the collation, collection, organisation and maintenance of information on an Intranet is often decentralised, and responsibilities for that collation, collection, organisation and maintenance of information dispersed across an organisation. The challenge of Content Management therefore is not so much in identifying new characteristics of information unique to Intranets, but in developing processes to manage a resource that is maintained, developed and updated in a disparate and multi-skilled way.

Gupta and Wachter identify four management styles that can be applied to Intranets:

• **Laissez-faire**
  Or the decentralised model, where contributors of Intranet content are free to publish any information they deem appropriate, with little or no bureaucracy.

• **Centralised model**
  Where policies and procedures for Intranet management are formulated and implemented to control development.

• **Mixed model**
  Where policies and procedures are drawn up and passed down through an organisation, but where the contributors have responsibility to publish within these policies and procedures with little or no centralised control.

• **Support services model**
  Where the organisation provides support for Intranet contributors through the development process.

In practice, many corporate Intranets progress through a series of management stages, starting as unmanaged collections of information often relying on the enthusiasm of key individuals, and becoming progressively more managed as they grow and diversify. The crisis point triggering the implementation of a full content management strategy for many organisations is the realisation that their Intranets are not only unmanaged, but also unmanageable. As unmanaged Intranets grow, both **recall** and **precision** in information retrieval drop, making users feel not only that information is difficult to find, but also irrelevant to their needs.

The process of building an Intranet content management strategy can be divided into three stages, starting with the formulation of policy, through planning to implementation.

**Stage One: What use are Intranets? – Applications and results**

Stage one is to define the role of the Intranet within the organisation. The role of the Intranet can be thought of in terms of applications and results, where *applications* are those uses to which an Intranet is put, and *results* the impact of those applications on the activities of the organisation. Intranet development is invariably discussed solely in terms of results, both within organisations and in the literature. We may hear about Intranets enabling a sharing culture, or releasing an organisation’s intellectual and knowledge capital. However it is always a mistake to attempt to define
an Intranet’s role entirely through desired results. We must ask not what results we hope to achieve, but how we intend to achieve them.

Typical applications of a corporate Intranet may include the centralised storage of large volumes of information, the use of web technology to integrate existing communications, the creation of skills databases, and collaborative working through groupware. The results we might want to achieve from these applications being: improved utilisation of existing information resources, enhanced communications, and a more collaborative working environment.

The precise application to which any individual Intranet may be put is dependent on the objectives of the organisation itself. Therefore the strategic aims and objectives of any Intranet should always be written to mirror the objectives and work patterns of the organisation as a whole. An illustrative example for a commercial organisation is set out below (Figure 1).

**Stage 2: Content management building blocks**

Against these strategic aims we must measure specific issues of managing information within a web environment. These issues are little different from those of any large and diverse information collection. We can divide them into Quality, Reliability and Organisation of information, defined for our purposes as:

- **Quality of information**
  Information available on an Intranet which for reasons of legality, relevance or any other issues should not be available, or information which should be available on the Intranet but is not.

- **Reliability of information**
  Information that is potentially of use but which for reasons of timeliness, carelessness or source is inaccurate, inconsistent or misleading.

- **Organisation of information**
  Information which is potentially of use but which is rendered effectively useless by poor organisation, broken links, misleading links, poor presentation, duplication of information etc.

These factors, judged against the strategic aims set out in stage one, must be explicitly addressed by any content management strategy. The weight which each may carry is dependent upon context, for a law firm or accountancy the accuracy of information is business critical, where as for

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**The Intranet is designed to secure a competitive advantage for the organisation within the marketplace by:**

- Facilitating communications between staff and departments.
- Acting as a tool in the targeted dissemination of technical, internal and external news and information.
- Acting as a central storehouse for business critical information, policies, guidelines, forms and procedures.
- Generating business by helping to improve cross-selling opportunities.
- Improving the social, organisational and corporate cohesion of the organisation by encouraging an open and sharing information environment.

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**Figure 1 – Example of Intranet aims & objectives**
universities quality of information is liable to carry more weight. Regardless of the exact weighting, we can use these issues as the building blocks for our Intranet content management strategy.

The full set of building blocks consists of fourteen components, four cover Quality, four Reliability, and six Organisation.

**Quality Building Block 1: Relevance of information**

Large volumes of irrelevant information on an Intranet act to obscure useful information, and can act as a deterrent to Intranet usage. The relevance of any piece of information is of course highly subjective, and dependent upon the aims and objectives of the individual Intranet.

**Quality Building Block 2: Sensitivity of information**

Much of the information that filters through an organisation is confidential or commercially sensitive, for example personnel records, client information, and future business planning. How this is handled with regards to Intranets is a matter of discretion, some organisations use restricted areas while others treat their Intranet as an open system on which nothing of a sensitive or confidential nature should be stored. How exactly sensitive information is managed is not in itself that important, but ensuring consistency of approach is.

**Quality Building Block 3: Legality of information**

Intranets are potential minefields for intellectual property, data protection and information legislation. For an Intranet to remain legal and avoid exposing the organisation to liability, an Intranet content management strategy must include procedures for controlling and implementing information law.

Generally this takes the form of at least an explicit statement of intent to avoid breaching information law, but such a statement on its own does not mitigate the threat. For an organisation to ensure compliance with information law, processes must be in place to ensure not only that this message is disseminated and reinforced, but also to check that compliance is actually occurring.

**Quality Building Block 4: Suitability of information**

Some information which concords with the business objectives of the organisation and the strategic aim of its Intranet may nevertheless be unsuitable for inclusion due to reasons of taste, offensiveness, or for other reasons judged by the organisation. This is dependent on the culture of the organisation itself, city financial institutions are likely to be less flexible than new media businesses for example, but catch-all clauses can be useful in handling issues which are not explicitly defined elsewhere.

**Reliability Building Block 1: Accuracy of information**

Information contained on an Intranet should be reliably accurate, yet factual accuracy of information is one of the most difficult aspects to ascertain. A relaxed approach would be simple to pass the responsibility for accuracy to the content creators, but when inaccurate information can have potentially damaging consequences this is not always good enough. Checks on accuracy of information can be built into content management procedures where appropriate.

**Reliability Building Block 2: Currency and timeliness of information**

Much information that is relevant is time-dependent. Guidelines are revised, statistics are updated, bills are replaced by acts etc. Furthermore, some information is useful for a limited time period, for example news releases. Ideally all information on an organisation’s Intranet will be not only current, but also available the moment it is published. In reality this is impractical.

The strategy for dealing with currency and timeliness should therefore cover not only processes for ensuring such, but also principals on which priorities for updating and publishing information can be decided.

**Reliability Building Block 3: Redundancy of information**

Redundant information can only be defined with reference to the needs of the organisation and its members. For example, exchange rates for
currency traders become redundant moment by moment, but remain essential for Accountants indefinitely. Unfortunately, redundant information has a habit of hiding in out of the way places on Intranets, making its identification difficult.

Reliability Building Block 4: Attribution of information

All information ultimately derives from a source, either internal or external. External sources should always be attributed, and it is often useful for internal sources to also be attributed. Principals must be established to outline this process.

Organisation Building Block 1: Most appropriate form of information

Deciding on the most appropriate form for any piece of information consists of two different aspects: first whether the information is actually best suited to an Intranet application, and if it is, deciding the most appropriate format for that information.

Not all information is suited to Intranets. The most obvious example is sensitive information, because control of information once it is placed on an Intranet is difficult to maintain. However this is not the only example. Staff newsletters, for example, are probably more suited to paper because paper better matches the way that people use that information, (reading on the bus or over lunch etc), and because people are more likely to read something that is physically given to them.

If any given piece of information is more suited to an Intranet, its electronic format must be decided. Most Intranets use a variety of formats, from HTML through word processors to Adobe Acrobat and various database formats. Each format will have its own advantages and disadvantages. HTML is best used for static information, Adobe is a secure format, word processor formats will allow users to alter the contents for their own use. The best format for any piece of information is dependent on the use to which it will be put, but principals should be established in the content management strategy.

Organisation Building Block 2: Duplication of information

Duplication can lead to problems of conflicting information and procedures should be in place to avoid this, whether this is based on the principal of single sources and multiple applications, (the database model) or rigid demarcation of ownership and responsibilities.

Organisation Building Block 3: Navigation structure and logic

Principals of Intranet navigation should be consistently applied. This may mean imposing restrictions on content creators over the way in which they organise their material, or forcing a navigation bar across all sites. Alternatively it may simple mean ensuring that the user can always return to their starting point.

Organisation Building Block 4: Underlying structure and logic of information

Generating an underlying structure to an Intranet can aid search engine functionality, knowledge organisation tools such as indices and thesauri, update scheduling and targeting the dissemination of information (pushed content). Generating an underlying structure may be as simple as creating a universal index or thesaurus, or may involve comprehensive metatagging of information. Generally speaking, the more comprehensively a structure is imposed, the better, but this must be balanced against the investment necessary to achieve this.

Organisation Building Block 5: Referencing/links/indexing/design

These four aspects are at the heart of the organisation of information on individual sites. While primarily the responsibility of the individual content creator, it is important that some principals are established, however rigidly applied. Inconsistent referencing, naming of links and indexing will make an Intranet difficult to use.

Organisation Building Block 6: Ownership of information

Each element of the Intranet has an author who has created that element and taken on responsibility for updating it. As the Intranet grows, the diversity of information resources will also grow. It is essential for the implementation of content management procedures that it is always clear precisely who is responsible for a given element of
information, and procedures for ensuring this should be established.

Stage 3: Implementation - the resource/process dichotomy

These building blocks describe the elements that should be present, to a greater or lesser degree, within a content management strategy. However, turning these elements into a usable set of procedures and tools is more complex.

Content management consists of the marriage of resources and processes. Resources are those tools we might use to manage content, such as metatags, databases, and style guides. Processes are the formal application of those tools and of management principals. This dichotomy between resources and processes is artificial, the two interact, but it is useful to make the distinction.

Stage one and two of creating an Intranet content management strategy involved filtering the organisation’s objectives through Intranet strategic aims and moulding these into fourteen building blocks that outline the issues involved. The final stage consists of turning these building blocks into a set of content management resources and processes.

Precisely how this is done is dependent on the management style of the organisation (as outlined by Gupta and Wachter
dependently), the IT architecture, the management structure and culture of the organisation, and many other factors. The principals however remain the same. For discussion purposes it is useful to think about managing the single unit of information, the Intranet page or database record, although in practice information is managed on Intranets at its most appropriate level.

Content management resources

Content management resources are those tools that help us to manage Intranet content. Some of our building blocks respond better to the use of resources than others. Typical resources may include:

- Centralised databases, for example staff databases, or database information retrieval thesauri etc.
- Style guides, defining the look and feel of sites, vocabulary, or other aspects of Intranet design.
- Metatags & Metatagging engines, providing the underlying structure of the Intranet.
- Search engines & indices.

It is best to illustrate the implementation of content management resources by taking examples from the building blocks above through its various stages. Let us examine briefly redundancy of information, an ongoing problem in Intranet management.

Ideally, any redundant page of information should be identified as soon as it goes out of date. In practice, this is almost impossible to implement. Perhaps the most effective way to trap redundant information is to allocate every page with a review, and rigorously enforce these periodic reviews. There are various approaches to implementing this, for example using metatags to mark each individual page with review information, or developing a centralised register or schedule of reviews. Alternatively, we might simply use the file information to ascertain which pages have not been updated during a given period, and forgo entirely the scheduling of updates.

Whatever approach is taken, we are creating resources to manage out Intranet, and different resources will be needed for different building blocks or combinations of building blocks. Integrating these resources is essential. For example, periodic reviews can be used not only to check for redundant information but also relevance, sensitivity, legality, suitability, accuracy and so on. We might design out web crawler to not only index the Intranet for the search engine, but also report on broken links. We might use a style guide to manage the structure and organisation of information with a controlled vocabulary, and re-enforce this controlled vocabulary in the classification scheme used for metatagging, in a universal index or thesaurus.

Whatever combination of content management resources is chosen, it is essential that they be tied into systematic processes to ensure ongoing and sustained management and development.

Content management processes

Content management processes are the application of content management resources in the systematic management of an Intranet. The processes must be
aligned with the workflow of the Intranet. The lifecycle of an Intranet page is set out below in Figure 2.

At each stage of this cycle content management processes must take place. For example, if we take the application of our periodic reviews, processes must first be in place to assess a new page to establish a review frequency, and later to identify that page at the time of the review. Similarly, if we take the issue of information law, at every stage processes must be in place to insure compliance. We may decide that after the initial development, the publication of information must be approved, and that the periodic reviews be used to catch infringements during the continued development stage.

Although many of the resources and processes can be automated, we can for example establish regular searches to identified pages needing review and store this information to be actioned later, the implementation of content management processes usually come down to somebody taking responsibility for day to day content management, to ensure the consistent application of resources and processes.

What is important in the development of a set of resources and processes is that the issues highlighted in each of the content management building blocks are controlled at each stage of the development process for every unit of information that appears on an Intranet. It is of little use, for example, to depend entirely on an authorisation procedure to ensure quality and consistency of Intranet content, as content is liable to change after it has been authorised, and because content will become redundant, be replaced, etc. It is no use relying on training, or style guides to control content, as those creating content will interpret training and style guides differently. Content management must be implemented as an ongoing dialogue between those creating the content and those managing the Intranet as a whole, a continuing process of communication and collaboration. Only when the management of the Intranet has reached this state, will it become a truly managed resource.

Intranets: the managed resource

The complete process for building a content management strategy as set out in this article is summarised overleaf in Figure 3.

However, the managed Intranet will always remain in a state of flux between development and review. Intranets should be fluid, changing information resources.

Information management techniques have failed to keep pace with information technology developments over recent years, to the extent that the capability to deliver large volumes of information became available long before the processes to manage that delivery effectively. As a consequence

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**Figure 2 – The page life-cycle**
the management of these delivery methods has often been driven from an information technology stance simply because the information technologists have found the driving seat vacant. But managing information resources is not fundamentally about controlling the technology that underpins those resources.

Intranet Management is a combination of managing the people who create content and managing the content they create. The most important thing to remember is that Intranet management is not really about the servers and the wires and the software and databases. The effectiveness of Intranets is ultimately dependent on motivating individuals to produce and maintain quality content.

Reference


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