



Department of  
Human Services

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**Intranet Information Architecture  
Best Practice Analysis**

**Information Architecture Strategy Project**

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**December 2008**

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## Acronyms and Glossary

Term	Definition
	Information Architecture
WMAS	Web Management Architecture and Standards Project
Desktop Research	An informal research activity involving the accessing of information from published resources and non-published sources.

# 1. Executive Summary

This document records findings from the intranet best practice analysis activity conducted by the IA Strategy project team in the Web Domain Group, Department of Human Services. The best practices outlined in this document will be used as a reference point for the project team to help ensure the work produced by the IA Strategy project meets recognised best practices in the intranet sector.

While this document was produced with the DHS intranet in mind, it could serve as a useful reference for other government departments and associated bodies.

A summary of the best practices identified in this document is below:

## Internet versus intranet design

Summary	Section
It is best practice to design and manage intranets and internets differently because they have different purposes, audiences and information.	4.1

## Methodology best practices

Summary	Section
A usability evaluation study of a current intranet should be conducted prior to changing an intranet in preparation for future benchmarking.	4.2.1
A user-centred approach should be adopted to ensure the intranet is easy and efficient to use for all users.	4.2.2
A continued program of user testing should be planned to ensure ongoing intranet success and quality.	4.2.3

## Design best practices

Summary	Section
One unified intranet is preferable to several intranet sites.	4.3.1
Intranet homepages should be carefully balanced between business and user needs.	4.3.2
It should be easy for users to access the intranet when they are not at their regular computer.	4.3.3
Generally it is best to avoid users having to log-in to an intranet (except when security or personalisation are important).	4.3.4
Intranets should be structured in a user-friendly way to help users find information quickly and easily.	4.3.5
Intranet personalisation should be considered with caution (one situation where personalisation may be helpful is when an organisation is trying to move from several intranets to one).	4.3.6
Similarly, intranet customisation should be approached with caution. Of the myriad customisation features possible, link customisation is the more beneficial one.	4.3.6
Forms on an intranet should be located in one, central place and extensively cross-linked with related intranet content. Users should be able to find forms by searching and by browsing by topic or function.	4.3.7
If videos are used, these should be short (less than 3 minutes) and should display the date, length, a description, captioning (for accessibility compliance) and information about the presenter and links to references made in the video.	4.3.8
An intranet should list all of the organisation's job vacancies (internal and external) and ideally allow intranet users to apply online.	4.3.9

News and events are often popular intranet content. The intranet should list news on its homepage	4.3.10
The employee directory is very often the most popular intranet feature. This is not necessarily true for organisations which provide an employee directory search within another system such as MS Outlook or Lotus Notes.	4.3.11
An effective intranet search is essential to an intranet. There is a strong relationship between intranet search effectiveness and content quality.	4.3.12
An intranet “killer app” (an application that fulfils a general need at the organisation) can help drive users to an intranet. An employee directory is the most common intranet killer app.	4.3.13

## Governance and Management Best Practices

Summary	Section
A successful intranet needs the appropriate staff and resources so they can research, develop and produce.	4.4.1
The group the intranet reports to is important in helping reflect the intranet’s role in an organisation.	4.4.2
Intranet team members should include people with a broad range of skills such as development, IT, usability, design, writing, editing and management skills.	4.4.3
Upper-level management should communicate the intranet’s goals and key themes, and then give the intranet team the flexibility they need to create an intranet that achieves them.	4.4.5
It is important to sufficiently promote an intranet to help ensure its success. Promoting the intranet can help employees learn more about the site and use it more effectively	4.4.6

## 2. Introduction

### 2.1 Purpose of Document

The purpose of this document is to record findings from the intranet best practice analysis activity conducted by the IA Strategy project team in September – October 2008.

This document is not an analysis of the “as is” intranet environment at DHS. Also, this document is not a discussion on how the best practices outlined in this document should be applied to the DHS setting. Throughout the IA Strategy project, and in particular during design phases of the project, the best practices outlined in this document will be used as a reference point. This will help to ensure the work produced by the IA Strategy project meets recognised best practices in the intranet sector.

The IA Strategy project team conducted this best practice analysis activity to build on the preliminary best practice analysis work undertaken for the WMAS project (see the *Web Governance Model Implementation Plan* document).

### 2.2 Approach

Desktop research was conducted to produce the best practices outlined in this document. Due to time limitations, the project team selected to focus time and research efforts on the work of experts who are highly respected in the intranet sector such as:

- Jakob Nielsen (User Advocate and principal of the Nielsen Norman Group)
- Louis Rosenfeld (independent information architecture consultant, and founder and publisher of Rosenfeld Media, a publishing house focused on user experience books)
- Gerry McGovern (widely regarded as the number one worldwide authority on managing web content as a business asset) and
- James Robertson (Managing Director of Step Two Designs).

A list of research sources consulted can be found in appendix 6.

In addition, Stamford has drawn on extensive previous experience creating and redeveloping some of the largest intranets in the country. Stamford has led the intranet redesign process for such organisations as ANZ, the Australian Communication and Media Authority, the Australian Taxation Office, Vanguard Financial Services, Centrelink, La Trobe University, Monash University, Melbourne Water, the Federal Department of Treasury and Air Services Australia among others.

### 2.3 Composition

This document includes the following sections:

1. **Executive summary** – provides a summary of the best practices outlined in this document.
2. **Introduction** (this section) – provides an overview to the document.
3. **Background** – provides a background to the IA Strategy project.
4. **Intranet best practice principles** – this section details the intranet best practice principles identified through the best practice analysis.
5. **Appendix** – supporting information for this document.

### 2.4 Intended Audience

The intended audience for this document is the Web Domain Group and any other interested parties.

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## 3. Background

### 3.1 What is the IA Strategy Project?

The focus of the Information Architecture (IA) Strategy Project is, in conjunction with the deliverables from the Web Management Architecture and Standards Project, to transform DHS's web service delivery model.

This project complements all the activities that have either taken place or are currently underway through achieving the following:

- Development of a thematic DHS website architecture for the entire DHS web presence (including Internet and Intranet) through stakeholder consultation and analysis, investigation of best practice, and analysis of other government initiatives.
- In consultation with stakeholders, development of high level and detailed Information Architectures which meet the needs of users, as well as an appropriate IA Maintenance Strategy and Style Guide which will ensure that these needs are continually maintained.
- An understanding of user requirements for interactive tools such as e-Forms and search capability.
- Validation of the new Information Architecture by undertaking user walkthroughs and other iterative design activities including the development of mock-ups and visual designs.

## 4. Intranet Best Practice Principles

This section details the intranet best practice principles identified through the best practice analysis. It consists of:

- **Intranet versus internet design** – identifies the different factors that impact the design and management of an intranet versus an internet site.
- **Methodology best practices** – outlines best practices in the process used to design intranets.
- **Design best practices** – outlines best practices in the design of intranets
- **Governance and management** – outlines best practices in the ongoing governance and management of intranets.

Because the majority of the IA strategy project scope is focused on the design of DHS' future intranet, the design best practices section of this document is the most thorough and comprehensive section.

### 4.1 Internet versus intranet design

There are more differences than similarities between an organisation's intranet and internet website. These have a considerable impact on the design and structure of the sites, as well as the tools and processes used to maintain them.

While both internet and intranet sites are both browser delivered systems, there are unique factors to take into consideration when designing<sup>1</sup>

- **Users differ.** An organisation's internet site is used by external users who will know much less about the organisation. Intranet users are staff who tend to be more familiar with the organisation, its structure, and special jargon and conditions than external users.
- **The tasks differ.** Intranet users use the intranet for everyday work; an internet site is mainly used to support external users' needs.
- **The type of information differs.** An intranet may have many guidelines, procedures, reports, HR information, and other detailed information, whereas an internet site will have content written for external clients and users.
- **The amount of information differs.** Typically, an intranet has between ten and a hundred times as many pages as the same company's public website. The difference is due to the extensive amount of work-in-progress that is documented on the intranet and the fact that many projects and departments never publish anything publicly even though they have many internal documents.
- **Bandwidth and cross-platform needs differ.** Intranets often run over an internal network which is faster than most internet users' web access, so it can be feasible to more use bandwidth-intensive content on intranet pages. Also, it is sometimes possible to control what computers and software versions are supported on an intranet, meaning that designs need to be less cross-platform compatible (again allowing for more advanced page content).

James Robertson from Step Two Designs has compiled the following table<sup>2</sup> to summarise the differences in the design and management of an organisation's intranet and internet sites:

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<sup>1</sup> <http://www.useit.com/alertbox/9709b.html>

<sup>2</sup> [http://www.steptwo.com.au/papers/kmc\\_intranetvsweb](http://www.steptwo.com.au/papers/kmc_intranetvsweb)

Aspect	Corporate website	Intranet
Business goals	Communicate information; support marketing; sell products	Broad goals, including: communicate information accurately, improve staff efficiency
Audience	External users: wide range of skills and experience; limited understanding of organisation	Internal users: good understanding of organisation; wide range of information needs
Familiarity	Infrequent users: not familiar with site or organisation	Frequent users: familiar with site and organisation
Efficiency	Secondary issue for the site, unless frequently used by visitors	Primary goal of the site: to improve staff efficiency
Browsers & platforms	Many and varied	Consistent (SOE: standard operating environment)
Size	Small to medium	Medium to extremely large
Content & structure	Narrow, structured around key products and services	Broad, varied information types and content
Content updates	Weekly or monthly	Daily
Presentation	Appearance very important for promotion and sales	Consistency more important than appearance
Authoring models	Often centralised	Typically decentralised
Metadata	Support the needs of internet search engines	Support the needs of staff and site management
Integration with other systems	Limited, often only e-commerce systems	Extensive, core part of site functionality
Legal liability	Liable for every word published	Reduced legal exposure
Accessibility & usability	Very important	Very important

In terms of user-interface design, the interaction design, branding and identity, and search best practices detailed in the separate document, *Information Architecture and e-government Best Practice Analysis* supplement the best practices outlined in this document.

## 4.2 Methodology Best Practices

### 4.2.1 Conduct an evaluation study

Evaluating or benchmarking an existing intranet involves conducting usability tests, field studies and other user-centred activities to provide the intranet redesign team with:

1. An understanding of the current intranet's strengths and weaknesses
2. A set of data that the future intranet success can be compared to

Jakob Nielsen recommends conducting an evaluation study of an organisation's current intranet for the above reasons. He warns<sup>3</sup> "if you don't collect information about the intranet's existing version, how will you really know if the new version is better (or worse), and by how much."

Nielsen offers a set of tasks on which to evaluate an existing intranet using usability testing:

- Find information about an employee

<sup>3</sup> *Understanding and Studying Users (Test Data, User Behavior, and Methodology)*, volume 1, page 17

- Starting from the desktop, get to the intranet, and log in if necessary
- Find specific info, such as stock price, fax number, or directions
- Find the head of a group (org chart or substitute)
- Change home (personal) information or benefits information
- Find a specific past news item
- Look up a policy (on sick leave, vacation, or other)
- Find a job posting at a specific location
- Make a request (e.g. for tech support)
- Find and sign up for a training course
- Find info about a group
- Check out the latest news
- Find information about an employee benefit
- Find out about new hires, promotions, or retirements
- Learn about corporate goals, sales, or other objectives
- Find information about a different office location
- Look for a desired purchase in the internal classified listings
- Find information about a specific project within the company

For each of the above tasks, Nielsen provides time benchmarks to allow intranet teams to judge the usability of their current intranet against Nielsen's studies of intranet usability.

#### 4.2.2 Take a user-centred approach

The central premise of a user-centred approach is that the best websites (including intranets) result from understanding the needs of the people who will use them.

A user-centred approach to designing websites is a key recommendation from all eminent IA professionals such as Jakob Nielsen<sup>4</sup> and Louis Rosenfeld<sup>5</sup> along with government advisory bodies such as AGIMO.

*"A [website] should be easy and efficient to use for all users, regardless of their level of IT literacy. To meet this goal, agencies may consider following a user-centred design approach."<sup>6</sup>*

Please refer to the separate document, *Information Architecture and e-government Best Practice Analysis* for more information about taking a user-centred approach.

#### 4.2.3 Continued program of user testing

Regular intranet "health checks" should be conducted with the involvement of intranet users. The frequency of the checks depends on factors such as the *number of changes implemented* and the *size or potential impact of the change required*. At a minimum, user testing should be conducted every 12 months, however intermittent testing may be required prior to larger changes. User testing could involve, for example, scenario-based tests with users (i.e. ask users to find specific pieces of content or to complete a task on the intranet) or closed card sorting (i.e. take a representative set of content from the intranet and ask users to sort the content into the current IA categories). The results would then be used to direct the realignment of the intranet.

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<sup>4</sup> Jakob Nielsen PhD is co-founder of the Nielsen Norman Group and a world renowned usability expert. His biography may be found here <http://www.useit.com/jakob/>

<sup>5</sup> Louis Rosenfeld is an independent and internationally recognised information architect. His biography may be found here <http://louisrosenfeld.com/biography/>

<sup>6</sup> <http://www.finance.gov.au/e-government/better-practice-and-collaboration/better-practice-checklists/intranet.html>

## 4.3 Design Best Practices

### 4.3.1 One unified intranet

Experts in the intranet sector agree that creating one unified intranet for an organisation is always preferable to several intranet sites. Jakob Nielsen says “*I know of a frighteningly large number of companies with multiple intranet homepages and multiple intranet styles: Step 1 is to get rid of that in favour of a unified intranet.*”<sup>7</sup> One unified intranet helps to avoid duplication of content, provides a consistent experience for users, and makes it possible for users to find what they are looking for within one site.

### 4.3.2 Homepage strategy

The homepage is a very important piece of real estate in an intranet. Intranet homepages can become cluttered and political battlegrounds as areas within an organisation argue and clash over who and what should be displayed on the homepage.

A cluttered homepage will deter users and discourage exploration by users. Intranet teams must carefully manage the intranet homepage, trying to balance business needs with user needs.

Jakob Nielsen offers a strategy to help ensure an intranet homepage is the best it can be:

- Establish guidelines about what kind of information should be on the homepage, how long it should be there, and what happens to it when it’s removed.
- Strive to maintain an uncluttered look on the homepage. Relentlessly cut items.
- Use the homepage to convey the most important new information
- Regularly remove older promotions and add new items.
- Limit the homepage to two scrolling pages or less.
- Categorise related types of information
- Limit the main site navigation to the top, left and (if necessary) right sides of the page. Use the homepage’s content/body area for news and other current information.
- Use graphics to convey or support important messages, no just to fill blank spaces on the homepage
- Create homepage links to all of the intranet’s main areas. Include key site features on the homepage, such as search, the employee directory, and company news.

### 4.3.3 Make it easy for users to access the intranet

In many organisations, staff can log into any computer within the organisation. It should be easy for staff to get to the intranet regardless of which computer they are using. Placing a shortcut link to the intranet on the desktop of all computers is helpful. Similarly setting the homepage of internet browsers to the intranet is effective. This is the current policy at DHS.

Jakob Nielsen recommends choosing an intranet address that is short and easy to remember and spell. Nielsen has observed that “*when URLs are memorable, logical, or easy to guess, users are more successful in navigating to the intranet*”. Allow users to access the intranet using a variety of addresses, such as simply typing “intranet” into the address bar. An example of an easy to remember URL is “internal.amazon.com”

### 4.3.4 Log-in and password

It is generally more user-friendly to allow users to access the intranet without having to log-in. However, in some cases there are benefits for having users log-in to the intranet:

- Security reasons e.g. to protect information
- The intranet can identify users, so users can benefit from personalisation features

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<sup>7</sup> <http://www.useit.com/alertbox/9709b.html>

However, requiring users to log-in to an intranet can be problematic because:

- Users forget their username and password
- Users call the organisation's IT helpdesk for assistance in logging-in
- Users may not understand the benefits of logging in

If log-in is required for an intranet, Nielsen offers the following guidelines:

- Only require the user to sign in once to access the entire intranet (and any systems accessed the intranet). Single sign on always provides the best user experience.
- Use the same username and password log-in as the user's organisational network log-in. Synchronise the user's network log-in to their intranet log-in.
- Once a user is logged-in, display their logged-in status. Allow users to log-out.

The current DHS workspace portal supports single sign on and personalisation.

### 4.3.5 Site structure

Ensuring an intranet is structured in a user-friendly way will help ensure intranet users are able to find information quickly and easily. A report by IDC<sup>8</sup> states that "an enterprise with 1,000 knowledge workers wastes \$48,000 per week – \$2.5 million per year – due to an inability to locate and retrieve information."

To design a site structure that is intuitive, the same best practices apply to designing an internet site structure as they do for an intranet structure. Please refer to the separate document, *Information Architecture and e-government Best Practice Analysis* for more information about site structure best practices.

### 4.3.6 Personalisation and customisation

Personalisation allows an organisation to assign an individual to a particular group which is then served up intranet content specifically targeted to that group. For example, a group of managers may receive intranet content reminding them of the due date for the annual performance review or notices about training courses specific to managers.

Many software vendors promote the benefits of the personalisation and customisation features their product contains. Jakob Nielsen warns<sup>9</sup> "if you can't do [personalisation] well or don't know enough about users, it is better to hold off until you can collect more information". Similarly, Gerry McGovern writes<sup>10</sup> "it's about getting the basics right. You don't need personalization to have a high quality staff directory, and that's what most intranets badly need right now."

There are some situations where personalisation may be a beneficial option for an intranet<sup>11</sup>:

- To provide access to confidential or personal information
- To provide the ability for users to enter or edit information that is confidential, personal, or necessary for doing business
- To provide information that only a specific team or type of person, such as managers can or should use.
- To provide information that differs for employees in different regions or offices, such as information about benefits, policies, or procedures.

Nielsen also suggests that "personalisation can be helpful if an organisation is trying to move from having numerous separate sites to providing a centralised intranet...A move towards personalisation could help streamline these disparate sites while still providing the necessary information to each employee"<sup>12</sup>.

<sup>8</sup> [http://intranetblog.blogware.com/blog/\\_archives/2005/9/8/1207102.html](http://intranetblog.blogware.com/blog/_archives/2005/9/8/1207102.html)

<sup>9</sup> *Address, Access, Homepage, Personalization, and Promotion, volume 2, page 65*

<sup>10</sup> <http://www.gerrymcgovern.com/nt/2007/nt-2007-09-10-intranet-personalization.htm>

<sup>11</sup> *Address, Access, Homepage, Personalization, and Promotion, volume 2, page 65*

<sup>12</sup> *Address, Access, Homepage, Personalization, and Promotion, volume 2, page 76*

However, the overriding guidance is “proceed with caution”. Nielsen suggests<sup>13</sup> basic personalisation, such as:

- Pre-populating known user information in forms or processes
- Pushing personal information to users, such as available leave days
- Providing news or information specific to the user’s location, department or role
- Hiding links that users don’t have permission to access
- Letting users manage their own personal information, such as home address and phone number.

Alternatively, customisation allows users, rather than IT or the intranet team, to set their own preferences. For example, a user may be able to customise which tools or applications appear on their view of intranet homepage, create a list of favourite links on the intranet, change a colour scheme or control the page layout.

Nielsen states that “although content customisation can be helpful for employees, many won’t bother to change the intranet’s default settings. For employees to use customisation, it must be immediately apparent, obviously beneficial, and easy to implement.”<sup>14</sup> Of the myriad customisation features in existence, link customisation is one that can be very helpful and beneficial for users<sup>15</sup>. This allows users to create a set of shortcuts to either information on the intranet or to external sites.

#### 4.3.7 Forms

Intranet forms include both online forms (forms that can be completed and submitted online) and downloadable forms (forms that can be downloaded from the intranet, completed then submitted independently of the intranet).

All online form best practice guidelines that apply to websites also apply to intranets. Please refer to the separate document, *Information Architecture and e-government Best Practice Analysis* for more information about online form best practices.

Nielsen recommends putting all forms in a central area on the intranet<sup>16</sup>. Forms should be cross-linked to the form’s main topic. For example, an annual leave form should be cross-linked with an HR area because users may look for the form by topic.

In the central area, forms should be listed by topic or function, not alphabetical order. A search function should also allow users to search for a form. Also forms should be pre-populated where the intranet user has been identified earlier (i.e. via a log-in).

For downloadable forms, Nielsen suggests indicating clearly if a PDF form is editable. “The problem...is that users don’t realise these pages are editable”<sup>17</sup>. Nielsen suggests a message should be placed at the top of the PDF form and near the editable area on the form indicating it is editable.

#### 4.3.8 Video

In recent years, video has started making its way onto intranets. The benefits of providing video on an intranet include<sup>18</sup>:

- It’s more personal than the written word,
- It shows emotion,
- It shows movement,
- It’s more lively than text.

There are possible drawbacks to using video on an intranet. These include<sup>19</sup>:

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<sup>13</sup> *Address, Access, Homepage, Personalization, and Promotion, volume 2, page 85*

<sup>14</sup> *Address, Access, Homepage, Personalization, and Promotion, volume 2, page 65*

<sup>15</sup> *Address, Access, Homepage, Personalization, and Promotion, volume 2, page 77*

<sup>16</sup> *Forms, Procedures, and Policies, volume 3, page 16*

<sup>17</sup> *Forms, Procedures, and Policies, volume 3, page 50*

<sup>18</sup> *Communications (Including News and Newsletters), volume 4, page 47*

<sup>19</sup> *Communications (Including News and Newsletters), volume 4, page 47*

- Greater server space may be required,
- Greater bandwidth may be required,
- Lack of computer power to display the video properly,
- Sound disturbances around the office,
- Time and expense of producing video.

When using video on an intranet, Sam Marshall<sup>20</sup> says “what seems to work best are very short, uncluttered messages.” Nielsen recommends a running time of less than 3 mins<sup>21</sup>.

Nielsen also recommends including the following information<sup>22</sup> alongside the video so users can determine if video content is relevant to them:

- The video’s length,
- The date of the video,
- A detailed description of the content,
- Information about the presenter,
- Links to references made within in the video and links to related intranet content.

Nielsen also recommends creating an archive area to house past videos<sup>23</sup>.

Delivery of video content on an intranet should be governed by intranet standards and guidelines.

#### 4.3.9 Internal job advertising

Providing a list of internal job vacancies on an organisation’s intranet helps make it easy for staff to find suitable internal positions and encourages internal movements within the organisation. Some organisations list employment opportunities on their public websites only. However, posting job vacancies on an intranet helps to better support current staff who seek internal opportunities.

Nielsen recommends listing all jobs i.e. those available to current employees and those also open to external candidates and the difference between the two should be clear to users.<sup>24</sup> Listed jobs should be organised by division or by location rather than in alphabetical order. Nielsen recommends<sup>25</sup> including the following details for each job listing:

- Job title
- Level
- Hiring manager
- Location
- Salary range, if acceptable
- Description
- Cross link job ads with relevant intranet content

The internal jobs section on an intranet should provide search functionality to allow users to find a job by keyword.

Ideally, users should be able to apply for an internal job wholly online via the intranet<sup>26</sup>. The application should be simple and should allow users to attach a resume.

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<sup>20</sup> [http://www.intranetlife.com/intranet\\_benchmarking\\_for/2007/10/intranet-video.html](http://www.intranetlife.com/intranet_benchmarking_for/2007/10/intranet-video.html)

<sup>21</sup> *Communications (Including News and Newsletters)*, volume 4, page 48

<sup>22</sup> *Communications (Including News and Newsletters)*, volume 4, page 53

<sup>23</sup> *Communications (Including News and Newsletters)*, volume 4, page 56

<sup>24</sup> *Forms, Procedures, and Policies*, volume 3, page 98

<sup>25</sup> *Forms, Procedures, and Policies*, volume 3, page 110

<sup>26</sup> *Forms, Procedures, and Policies*, volume 3, page 120

### 4.3.10 News and events

Organisational news and events information on an intranet can often be the “killer app” that elevates an intranet to be an invaluable resource for staff. An intranet offers employees a centralised place to stay abreast of company news, policies, deadlines, and other information. Intranet news can also include information about individual, group and team projects. This helps staff know more about their company and the work being done there.

Nielsen strongly recommends including news items on the intranet homepage<sup>27</sup>. Including news on the homepage ensures users see timely, important information when they visit the intranet. Different categories of news can be included on the homepage (for example, organisational-wide news, events news, staff news) – each category should be clearly labelled and defined within the homepage to avoid user confusion over the purpose, importance, and type of each category. It may be important to separate some news categories. For example, news about organisational performance or official policies might not sit well with information about social events or internal staff news. Thus, “official” news (e.g. news from HR or corporate communications) is often distinguished from more informal news.

Furthermore, in addition to news on the intranet homepage, the intranet should provide:

- all news in one main news area on the intranet
- a centralised area to communicate info about staff promotions, new hires and departures
- a centralised area for events from all areas of the organisation.

When displaying news items on an intranet, Nielsen recommends:

- a categorised and searchable list of news
- a clear heading that links to the news item
- an abstract to describe the news item
- the date the item was posted
- cross linking news items to related intranet content
- a news archive (categorised and searchable).

Once a news item is no longer displayed on the homepage and within the main news area, the item should be moved to an archive area. All news items should be archived and accessible for 3 years after the published date<sup>28</sup>. The news archive area should provide search functionality and also sorting functionality to help users locate an archived news item.

Nielsen suggests including links to the three most recent press releases<sup>29</sup>. This helps to ensure staff know at least as much about the organisation as the outside world does and that they hear company changes, accomplishments or announcements from the organisation first.

Nielsen also suggests customising the news presented to the user’s job, location, and any other variables that would help offer the best experience for the user<sup>30</sup>.

Providing “outside” news on an organisation’s intranet, such as headlines from national news websites or weather information, should be carefully considered. In most cases, Nielsen advises against this. He says “there are enough newspapers and news sites that cover general news well, and users know how to find them”<sup>31</sup>. One exception is when employees do not have web access.

Nielsen advises organisations to “consider allowing users to write, add and edit news items”<sup>32</sup>. This can be a significant factor in keeping news fresh and varied, and to empower many content providers. Moderation, or a more detailed workflow, can be designed to ensure news items are written well and adhere to the organisation’s style guide.

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<sup>27</sup> *Communications (Including News and Newsletters)*, volume 4, page 13

<sup>28</sup> *Communications (Including News and Newsletters)*, volume 4, page 37

<sup>29</sup> *Communications (Including News and Newsletters)*, volume 4, page 28

<sup>30</sup> *Communications (Including News and Newsletters)*, volume 4, page 13

<sup>31</sup> *Communications (Including News and Newsletters)*, volume 4, page 28

<sup>32</sup> *Communications (Including News and Newsletters)*, volume 4, page 36

### 4.3.11 Employee directory

The intranet is an ideal place to host information about teams, projects, and people<sup>33</sup>. “Staff need the names of people to go to for information and services. They need to know which departments to turn to for various tasks. They need information on the company’s various offices and who to contact for simple things, like finding a hotel in the area. They might be thinking about changing jobs within the organisation, and need a little information about a certain team. They need to know about their industry and – closer to home – about their company’s core projects and products. They need to know who’s joined, retired, and been promoted. They need to know about events they should attend. Most commonly, people need phone numbers for co-workers<sup>34</sup>. For these reasons, the employee directory on an intranet is very often the “killer app” that staff use frequently.

An employee directory contains the names and details of staff and teams within an organisation. Nielsen suggests including the following details for each employee profile<sup>35</sup>:

- Name
- Title
- Email address
- Phone number
- Manager
- Division/team
- Direct reports (such as an administrative assistant)
- A photograph (if appropriate for the organisation)
- Nickname or preferred name (to help with searching for an individual, for example “John” can also be known as “Jack”)
- Presence awareness (“in” or “out” of the office/desk). Nielsen recommends allowing staff to enter absences for other staff. This allows for unexpected absences to be recorded in the directory.

The same details should be shown for every employee profile in the employee directory. Where applicable, details in an employee’s profile must be linked to related content. For example, a manager’s name should link to that manager’s employee profile; division/team information should be linked to any information about that group available on the intranet.

Nielsen advises organisations to “consider adding information about employees’ areas of expertise and details about their job responsibilities, projects, and clients so employees can search for each other based on knowledge and skills.”<sup>36</sup> Including knowledge and skills information in employee profiles can significantly assist knowledge management in an organisation. Some organisations allow employees to add information about their knowledge or expertise areas to their profile. However, as with all personalisation functionality, staff may not embrace this freedom.

#### Employee directory search

An employee directory search should be included on every page on the intranet, and ideally this should be placed in the horizontal menu bar<sup>37</sup>. Over the past few years there has been much written about how to provide both an intranet wide search and a staff directory search on the intranet.

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<sup>33</sup> *Corporate Information, Teams, Departments, and People, volume 5, page 11*

<sup>34</sup> *Corporate Information, Teams, Departments, and People, volume 5, page 11*

<sup>35</sup> *Corporate Information, Teams, Departments, and People, volume 5, page 51*

<sup>36</sup> *Corporate Information, Teams, Departments, and People, volume 5, page 55*

<sup>37</sup> *Corporate Information, Teams, Departments, and People, volume 5, page 64*

Nielsen<sup>38</sup>, Step Two, and Gerry McGovern all recommend providing two separate search fields: one for the intranet wide search and another for the staff directory. Specifically, Nielsen recommends two separate stacked searches, clearly labelled<sup>39</sup>. Some intranets provide a single search fields with two radio buttons to allow users to search the intranet or staff directory. However, Nielsen's usability study noted that when the radio button default is on the staff directory "users frequently forgot to switch to an intranet search when looking for information on the site...In general, web users are not accustomed to having to select the type of search they want to conduct"<sup>40</sup>.

Providing an "advanced search" option for an employee directory search that allows users to search for staff using partial details will help users to search when they have only limited information about who they need to find. For example, users may need to search for staff within a particular area of the organisation, or are unsure how to spell an individual's name correctly. Nielsen suggests<sup>41</sup> allowing an advanced search option that allows users to search by:

- First name
- Last name
- Initials
- Nickname or preferred name
- Title
- Division/business area

The search results page from an employee directory should display the name, location, title, email address (displayed as a link), and telephone number for each employee returned in the search results<sup>42</sup>. This will allow users to identify the person they are looking for without having to click through to an additional page. Repetitive or redundant employee information should be eliminated from the search results page.

In search results pages, name matches should be listed first. For an example, a search for "smith" should show individuals with the name "smith" followed by individuals in the "Smithville" location or those with a "smith.edu" email address.

#### 4.3.12 Intranet search

The user experience for intranet search differs significantly from an internet search. In contrast to many websites, nearly all intranet sessions come from repeat users who have existing knowledge of the intranet's search quality. Intranet search is one of the most important aspects of an intranet, yet it is often ineffective. "Most intranet search delivers lamentably poor results. Time and time again, I hear staff plead: "Why can't we just get Google?"<sup>43</sup>. While the type of search technology used is important, it is the intranet content that so often restricts the effectiveness of an intranet search. Gerry McGovern states that "too many intranets are being filled with garbage-poor quality, badly written, badly structured, second-hand content. This content is "put up" by an army of low-skilled put-it-uppers. It doesn't matter what sort of fancy search technology you have - it's garbage in, garbage out."

To ensure an effective intranet search content quality is critical. Content should be written well by trained individuals, marked-up (coded) semantically and contain quality metadata. There is a strong relationship between search performance and content quality.

While a user interface design won't fix a poor intranet search, it is vital to ensure a good intranet search is as effective as possible. Nielsen recommends that a single intranet search input field is included in the top right of every intranet page<sup>44</sup> and a button labelled "search" be placed to the right of the input field.

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<sup>38</sup> <http://www.useit.com/alertbox/20030224.html>

<sup>39</sup> *Corporate Information, Teams, Departments, and People, volume 5, page 66*

<sup>40</sup> *Corporate Information, Teams, Departments, and People, volume 5, page 67*

<sup>41</sup> *Corporate Information, Teams, Departments, and People, volume 5, page 75*

<sup>42</sup> *Corporate Information, Teams, Departments, and People, volume 5, page 82*

<sup>43</sup> <http://www.gerrymcgovern.com/nt/2006/nt-2006-12-04-intranet-search.htm>

<sup>44</sup> *Corporate Information, Teams, Departments, and People, volume 5, page 19*

Nielsen suggests organisations use scoped search with caution. A scoped search requires users to choose an area to search within before they invoke a search. Benefits of a scoped search can include faster return of search results and fewer results returned. However, Nielsen states that “users have a difficult time just conducting [a scoped] search, sometimes failing to even realise that it’s scoped”<sup>45</sup>. Suggested strategies are:

- avoid using scoped search if possible, especially if the search is fast and the results are limited
- if scoped search must be used, always allow users to choose the scoping. Do not automatically scope the search based on the user’s current intranet location.

### Intranet search results

Intranet users “expect the interfaces and experiences to be similar” for internet and intranet search results.

Please refer to the separate document, *Information Architecture and e-government Best Practice Analysis* for more information about displaying search results.

There are some best practices specifically related to intranet search results:

- Last modified information is good to have, since it lets users determine whether they’re looking at the latest version.
- Carefully consider what content to include in search results as all intranet content may not be relevant for a general intranet search. For example, IT request tickets should not be indexed and included in a general intranet search, but rather a ticket-specific search.

### 4.3.13 “Killer apps”

An intranet “killer app” is an application that drives people to use an intranet. A killer app might be a small, seemingly trivial application (like a world clock), or a large, complex application (like a procurement system). However simple or complex, it is an application that fulfils a general need at the organisation. Identifying an intranet killer app is vital to the success of an intranet. In his “*Killer Apps – Features That Drive People to Use the Intranet*” report, Jakob Nielsen states that “identifying your killer app gives you very powerful information. You can use the knowledge to make and keep the killer app the best that it can be”.

A staff directory is often an intranet killer app. Forms (such as timesheets, leave and expense forms), organisation news and events, and bulletins boards are other common killer apps. An intranet killer app must always be visible, easy to find, and quick and easy to use.

Nielsen has identified some common themes among killer apps<sup>46</sup>:

- **Visible and easy to find.** Most killer apps are accessible from their intranet’s homepage.
- **Mission-critical content at employees’ fingertips.** The biggest factor driving a killer app’s popularity is its ability to give employees critical information with just a few easy mouse clicks or keyboard strokes.
- **Employee directories.** By far, the most common killer app is an employee directory and directory search. Employee directories are crucial for bringing co-workers together, particularly at the point of need.
- **Building community.** Some killer apps (e.g. company news, forums, and classified boards) directly develop an organisation’s internal community.
- **Replacing email.** Intranet killer apps prove to be a more reliable, up-to-date, and faster method of disseminating information than emails or physical distribution.

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<sup>45</sup> *Corporate Information, Teams, Departments, and People*, volume 5, page 29

<sup>46</sup> *Killer Apps (features that drive people to the intranet)*, volume 10, page 19

- **Creating an element of fun.** Some killer apps introduce an element of fun. For example, using a tongue-in-cheek tone, an amusing name for the employee directory (the City of Casey has named its award-winning intranet “Boris”), uploading photographs, and quick polls to test employee’s knowledge of a particular company area. Although small, they spice up an intranet, thereby increasing employee interest and enjoyment in using the intranet. It is important to note that fundamentally a killer app needs to be useful and helpful for staff. Creating an element of fun should not be reason itself for implementing a particular killer app.
- **Content contributions.** Many killer apps allow employees and administrators to create and contribute content. By giving people tools to create and manage content, people have a greater sense of ownership and accountability over that content.
- **Integrating several information sources into one place.** The success of some killer apps is due to their function of bringing several information sources into one interface.

An example of the use of “killer apps” that have led to intranets winning awards are, a “Partner Dashboard” tool as part of the Fuller Landau intranet which was developed to enhance their internal time and billing system which encapsulates all the financial information kept for each client (billable hours, etc).<sup>47</sup> This innovation turned the intranet into a valuable business tool which encouraged the staff to visit every day.

Another example is the “Project Finder” for the Urbis Australia intranet. The Project Finder provides a rich mechanism for uncovering past projects, through the use of faceted search, and rich linking between resources. Project Finder was developed with the aims of providing an extremely flexible and easy way for staff to access, explore and apply Urbis’ collective work history, make it easy to apply the identified relevant work history to business development activities to help in winning more work and to leverage existing systems, data and capabilities.<sup>48</sup> This is an example of both providing mission critical content and integrating several information sources in one place.

#### 4.3.14 Enterprise portal and intranet integration

There is an ongoing trend towards organisations consolidating internal information systems into one enterprise portal. Recently the Department of Justice have consolidated a number of intranet sites into a portal. The integration will allow relevant information to be combined with services and line-of-business systems. For instance, when on a “fleet” page, the vehicle booking system is co-located on the page via a portlet. The Department of Education is currently embarking on a large strategy to consolidate a number of internal information systems (including an existing intranet, collaboration space, email system and an electronic document system) into one system.

In a recent report by Gartner, it is suggested that “rationalizing the portal infrastructure, where possible, can help cut costs and enable portal integration efforts to focus on providing functionality that will deliver business value”.

In his report “Building Intranet Portals – a report from the trenches”, Jakob Nielsen offers the following advice about portals:

- People issues are the biggest cost in portal implementation
- Involving users early eases acceptance problems
- Using portal products may mean a trade-off between speed and flexibility
- Many users don’t bother to customise pages for themselves and are happy to accept default settings
- If you have a lot of legacy applications to bring into a single sign-on infrastructure, a practical approach is to start with the ones that are used most frequently.

<sup>47</sup> *Intranet Innovations 2008*, Step Two Designs, page 21

<sup>48</sup> *Intranet Innovations 2008*, Step Two Designs, page 83

In the future, Gartner expect "portals to be replaced by the *portal fabric*", where portals adapt to users' preferred interaction patterns rather than forcing users to change their behaviors based on the specific portal. *Mashups* are also popular, because they make it easier to create applications and provide the benefits of more opportunistic applications. These will be important technologies to consider as organizations develop their portals.

## 4.4 Governance and Management Best Practices

DHS has projects in place or planned to address web governance, standards and management. Therefore this section of the document presents general intranet governance and management best practices.

### 4.4.1 Ensure adequate resourcing

It is crucial to the ongoing success of an intranet, that intranet teams are treated and funded at the level of other vital business tools and projects. A successful intranet needs the appropriate staff and resources so they can research, develop and produce.

In his "Managing the Intranet and Teams" report, Jakob Nielsen's research has calculated that the average size for a core intranet team is five people. As a percentage of an organisation's total employees, the average proportion of people with responsibilities for the intranet is 0.27% (for an organisation the size of DHS - approximately 12,500 staff - this equates to 33 staff). Some of these team members had other job responsibilities as well; team members often worked only part-time on their intranet. Nielsen asserts that "this is a small number given that intranets are a majority productivity and communication tool for organisations".

### 4.4.2 Intranet team sponsorship

The group the intranet reports to can make a statement and help reflect the intranet's role in an organisation. For example, when a team resides within Knowledge Management and Human Resources, the emphasis is on the intranet as a tool for managing information. When the intranet team is grouped with other web teams, it emphasises the intranet as a medium of information delivery.

### 4.4.3 Intranet team skills

Including people with development, IT, usability, design, writing, editing and management skills within the intranet team will help to ensure the intranet can grow and respond to the needs of an organisation while retaining quality. Within intranet teams, individuals often fulfil several roles. For instance, one designer might take on the user interface as well as the design, while other individuals might be responsible for both content management and site development.

### 4.4.4 Upper-level management involvement

Nielsen has found<sup>49</sup> that on many occasions, intranet designers said that people above them in the organisation, such as vice presidents, told them to add certain elements to the intranet. Sometimes, this meant dedicating a large part of the homepage to a particular activity, or giving more space and weight to certain group's intranet section. Often, these changes didn't fit well with the rest of the design and metaphors, but the designers were nonetheless compelled to make the changes.

Upper-level managers probably have good goals in mind, but they are usually not designers and are rarely involved in the overall design process. Management should communicate the intranet's goals and key themes, and then give designers the flexibility they need to derive a simple interface that communicates them.

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<sup>49</sup> *Managing the Intranet and Teams, volume 9, page 24*

#### 4.4.5 Promote the intranet

Like any product, it is important to sufficiently promote an intranet to help ensure its success. Promoting the intranet can help employees learn more about the site and use it more effectively. It's essential to let employees know when improvements have been made, or new features added, or when the team is working on a redesign.

Nielsen suggestions for promoting an intranet include:

- **Have the intranet included in new staff orientation.** Often new employees have no formal introduction to the intranet. Of course, a good intranet should not require training in order to use it. The goals of introducing new employees to the intranet is to tell them what's on the intranet, so they're encouraged to explore it. The aim is not to teach them how to use specific tools, but instead to give them a quick introduction to key areas of the intranet. Keep the introduction brief; new employees are always overwhelmed with paperwork and learning about their new environment.
- **Conduct a "treasure hunt" on the intranet.** To help employees' exploration of the intranet, some organisations conduct an intranet "treasure hunt". This involves asking users to look for pieces of information, such as tools, policy information, or the company's mission or values. This introduces the content to users and also makes them explore news areas of the intranet and might help them understand the site structure and content more clearly. Sometime this is run as a type of competition with a prize or some other recognition awarded to a winner.
- **Communicate large, impending intranet changes.** Even very good intranet changes can be confusing and frustrating to users when they have already learned how to use a different design. People tend to be resistant to change, particularly if they've created workarounds to help them work with the previous site. Warn staff when major changes are coming. Sites can offer previews of the changes before they are live. Once the changes are implemented, allow the intranet team time to commit to answering feedback and queries for a period after the implementation.

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## 5. Appendix

### 5.1 Research conducted

Below is a list of online and offline resources consulted in the creation of this document.

- *Understanding and Studying Users (Test Data, User Behavior, and Methodology), volume 1*  
Intranet Usability Guidelines  
Jakob Nielsen, published 2007
- *Address, Access, Homepage, Personalization, and Promotion, volume 2*  
Intranet Usability Guidelines  
Jakob Nielsen, published 2007
- *Forms, Procedures, and Policies, volume 3*  
Intranet Usability Guidelines  
Jakob Nielsen, published 2007
- *Communications (Including News and Newsletters), volume 4*  
Intranet Usability Guidelines  
Jakob Nielsen, published 2007
- *Corporate Information, Teams, Departments, and People, volume 5*  
Intranet Usability Guidelines  
Jakob Nielsen, published 2007
- *Searching the Intranet and the Employee Directory, volume 6*  
Intranet Usability Guidelines  
Jakob Nielsen, published 2007
- *Navigation, Layout, and Text, volume 7*  
Intranet Usability Guidelines  
Jakob Nielsen, published 2007
- *Content Management and International Intranets, volume 8*  
Intranet Usability Guidelines  
Jakob Nielsen, published 2007
- *Managing the Intranet and Teams, volume 9*  
Intranet Usability Guidelines  
Jakob Nielsen, published 2007
- *Killer Apps (features that drive people to the intranet), volume 10*  
Intranet Usability Guidelines  
Jakob Nielsen, published 2007
- *Intranets: what staff really want*  
Gerry McGovern Consulting, published July 2007
- *The Good to Great Matrix: Key factors for Intranet Success*  
Toby Ward, published March 2008
- *The Difference Between Intranet and Internet Design*  
Jakob Nieslon, published September 1997  
<http://www.useit.com/alertbox/9709b.html>
- *Worlds apart: intranets and websites*  
James Robertson, published March 2003  
[http://www.steptwo.com.au/papers/kmc\\_intranetvsweb](http://www.steptwo.com.au/papers/kmc_intranetvsweb)
- *Better Practice Checklist - 14. Designing and Managing an Intranet*  
Australian Government Management Office, published May 2004  
<http://www.finance.gov.au/e-government/better-practice-and-collaboration/better-practice-checklists/intranet.html>

- *Intranet vs Internet Search*  
Toby Ward, published September 2005  
<http://intranetblog.blogware.com/blog/archives/2005/9/8/1207102.html>
- *Intranet personalization: does it work?*  
Gerry McGovern, published September 2007  
<http://www.gerrymcgovern.com/nt/2007/nt-2007-09-10-intranet-personalization.htm>
- *Intranet Video*  
Sam Marshall, published October 2007  
[http://www.intranetlife.com/intranet\\_benchmarking\\_for/2007/10/intranet-video.html](http://www.intranetlife.com/intranet_benchmarking_for/2007/10/intranet-video.html)
- *Employee Directory Search: Resolving Conflicting Usability Guidelines*  
Jakob Nielsen, published February 2003  
<http://www.useit.com/alertbox/20030224.html>
- *Why intranet search fails*  
Gerry McGovern, published December 2006  
<http://www.gerrymcgovern.com/nt/2006/nt-2006-12-04-intranet-search.htm>
- *Intranet Innovations 2008 – Intranet Innovation Awards*  
*Step Two Designs*
- *Key Issues for Enterprise Portals*  
David Gootzit, published 2008  
Gartner
- *Key Issues for Portals, Content Management and Collaboration Best Practices Projects*  
Kenneth Chin, David Gootzit, Jeffrey Mann, published 2008  
Gartner