INTRANET TECHNOLOGY: AN EFFECTIVE TOOL FOR A CONTROLLED AND WEB BASED EDUCATIONAL ENVIRONMENT THAT FACILITATES LEARNING.

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Abstract

Intranet or corporate information portals can have tremendous impacts on modern organizations. Today's Intranet are not just sources for publishing and posting internal documents and corporate policies, but instead are sources for knowledge management, work group collaboration, and on-line access to a multitude of other applications that support end-user tasks. Despite these impacts, there is a scarcity of research exploring Intranet adoption and implementation. In this paper, the researchers propose a framework that identifies several contextual antecedents of Intranet adoption and implementation. This paper explains the benefits that Intranet can bring to tertiary institutions and a review of some key issues that are needed to be considered when planning to deploy the technology.

Introduction

Contrary to popular belief, Intranet is not simply a misspelling of "Internet." "Intra" means "internal" or "within," so an Intranet is an internal or private network that can only be accessed within the confines of a company, university, or organization. "Inter" means "between or among," hence the difference between the Internet and an Intranet. Up until the last few years, most corporations used local networks composed of expensive proprietary hardware and software for their internal communications.

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Now, using simple Internet technology, Intranet has made internal communication much easier and less expensive. Intranet uses a Transmission Control Protocol/Internet Protocol (TCP/IP) connection and support Web browsing, just like a typical Internet connection does (Leon and Leon, 1999). The difference is that Web sites served within the Intranet can only be accessed by computers connected through the local network.

In institutions, Intranet can facilitate so many services. It helps dissemination of stored information as well as remote information. Through Intranet, institutions can discharge the required information users (Head of departments, Deans, Directors etc) in less time, with high effectiveness (Griffiths, 2000).

Intranet

An Intranet is a network connecting an affiliated set of client computers using standard Internet protocols (TCP/IP, Hypertext Transfer Protocol) or as an IP-based network of nodes behind a firewall or behind several firewalls, connected by secure network. It is a private network, accessible only to an organization's staff. Generally a wide range of information and services from the organization's internal Information Technology systems are available from this that would not be available from the outside, and one company-wide Intranet can constitute an important focal point of internal communication and collaboration, and provide a single starting point to access internal and external resources. Intranet began to appear in a range of larger organizations from 1994. The launch of a free web server from Microsoft in 1996 helped make the technology accessible to a wider market.

History of intranet

Intranets have actually been around for quite some time. When it was first introduced, Intranet was dismissed by critics as the latest in a seemingly endless parade of technological fad and buzzwords. That soon changed when businesses started to realize just how important a tool an Intranet can be. Several people claimed to have originated the term that describe the development of an internal client/server solution based on web technology.

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Dr. Steve Telleen at Amdahl was using the term Intranet as early as 1994 in a paper he wrote on Intra Net methodology which was placed on Amdahl's internal intranet and was placed on Almdahl's external Internet site. The first commercially printed appearance of the term is found in Stephen Lawton's article on Intranet in Digital News and review in April 1995. In it he discusses fortune 1000 companies posting web pages and installing telnet and File Transfer Protocol servers. The pioneers were Boeing, Schlumberger Ltd, Weyerhaeuser Corp., Sun Microsystems and Digital Equipment Corp. The advantages were listed as low cost of setup, ease of writing Hypertext Markup Language and access to various kinds of documents online such as employee manuals, research material and individual homepages.

In accordance to sources, the birth of the Intranet fell on a 1994 – 1996, that was true prehistory from an IT systems point of view. Intranet history is bound up with the development of Internet – the global network. The idea of World Wide Web, proposed in 1989 by Tim Berners-Lee and others, which aim was to enable the connection and access to many various sources, became the prototype for the first internal networks. The goal of Intranet invention was to increase employees' productivity through the easier access to documents, their faster circulation and more effective communication. Although, access to information was always a crucial matter, in fact, Intranet offered lots more functionality, i.e.: e-mail, group work support, audio-video communication, texts or personal data searching.

Why deploy intranet?

According to National Centre for Technology in Education (NCTE, 2008), there are many reasons and advantages to deploying Intranet in an organization. Those of particular relevance to schools are listed below;

➢ Faster access speed than Internet

➢ Objectionable content on the Internet is bypassed

➢ Allows teachers and students to develop content management and web design skills.

➢ Extranets can be setup linking multiple Intranets together, enabling other school to benefit from and contribute resources.

➢ External access to the Internet can be limited to authorized individuals via a firewall

➢ Relatively inexpensive to build and manage.

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Importance of intranet

According to Guha and Adhikari 1998, an Intranet is important because it simplifies the internal communication within a business increasing productivity by allowing staffers to access an internal database easily. It also allows management and employees to communicate easily and share information across the organization. An Intranet simplifies the follow-up process after meetings. An Intranet is vital for employees collaborating on a single document at different locations as they can easily access the document on the Intranet and update it in real time. A company that locates its policies and other information on a central database such as an Intranet allows employee to access such information easily in order to remain focused on other productive tasks. It is easy to automate tasks such as invoicing and stock control using an intranet. An Intranet enables a business to manage the available knowledge within an organization and allows workers to network using social tools; staffers can quickly identify colleagues with similar interests and skills, which may lead to future collaborations. As Intranet grow in complexity, the importance and challenges of setting up an Intranet governance structure grows in line -- but the benefits will be seen in the long run.

When we build any information system, be it a highly specific line of business system, a high throughput transactional system, a document management system or the Intranet we should always consider all of the major elements -- People, Process and Technology. Although there may well be Intranet out there that have failed the organization due to really bad technology, they are probably few and far between compared to those that fail due to people or process issues. An element of managing your Intranet that overlaps the people and process sides of the triangle is governance. Governance means many things to many people, but let's agree that we are basically talking about who is in charge, who can make decisions on what needs to be done, and on who can set policy and operational procedure (McGrath & Anthony, 1997 and Hinrich, 1997)).

Intranet application

An Intranet application is a software data application used primarily on the internal network of an organization or institution. Most commonly these types of applications are developed using web Internet technology making them accessible through web browsers such as Internet   Explorer.
The advantages to utilizing an Intranet web application over other forms of application software are many (Vishwanath, 1991 and Zurier, 2003).

> ➢ No additional costly software or hardware requirements
> ➢ Runs on a variety of OS environments

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➢ Only requires a web browser to access (IE, Netscape, Opera, Mozilla) and a web server (IIS, Apache) all of which you already own and in most cases is installed by default

➢ Does not require Internet access

➢ Modifications and maintenance are simple and instant

➢ Built with very common development tools which means finding someone to support it long term will not be difficult and costly

➢ Easy and quick to develop

➢ Common web look and feel

➢ Design and layout are highly customizable

➢ Excellent for mobile development as it can be made available anywhere, anytime with the proper security

Intranet web applications provide a lightweight, easy to maintain and upgrade alternative to many of the legacy applications you may be running in your office. They may also provide that common office interface your employees need, with proper security, to access all the data across the company
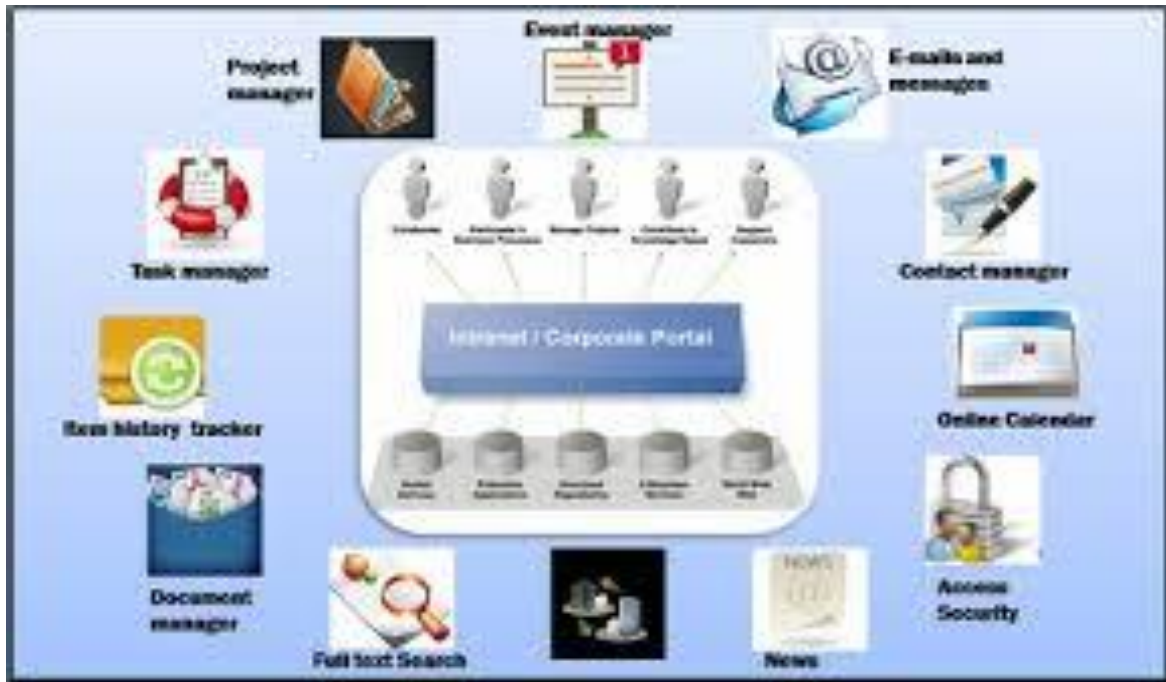

Fig. 1 Intranet Applications

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Fig.2 Sample Intranet Template

Fig. 3 Intranet Technology

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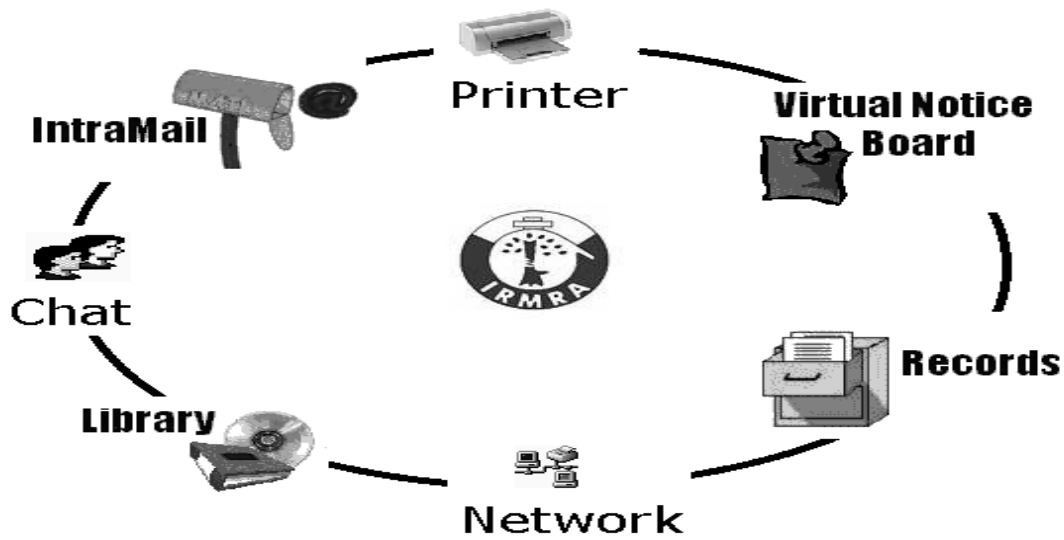
Future of intranet

Corporate Intranet will take on increasing importance as more and more businesses turn to Web-based applications to manage core business systems like SAP and PeopleSoft. Companies are learning that on-demand Web services are cheaper to maintain and easier to use than hosting software on their own systems. All of these Web-based applications can be bundled into the corporate Intranet where they can be accessed securely with one network password. Intranet trends follow closely on the heels of the latest Internet trends. The biggest Internet buzzword right now is Web 2.0. Web 2.0 is all about social media and user-generated content as opposed to the static, read-only nature of Web 1.0. Many of the most trafficked Web sites are fueled by Web 2.0 principles. It explains the explosion of blogs, the pre-eminence of Wikipedia and the tremendous popularity of online social networking sites like MySpace, Facebook and LinkedIn.

Corporate Intranets are getting an upgrade now that Net generation students are entering the workplace. The Net Generation grew up in a world steeped in communications technology. Many of them don't remember life before they had a MySpace account, and they'd be lost without their cell phones. Net Generation employees expect their employers to think and communicate the same way they do. E-mail is just a start. They want to have their own company blogs and subscribe to RSS (Really Simple Simplification) feeds from the blogs of their bosses and coworkers. They want to help build a company Wiki and hook up with friends on a company-wide social network.

Recommendation

Many organizations or institutions decide to hire a firm to run its Intranet rather than do so themselves. This cuts down on the number of internal problems and potentials disasters and gives management peace of mind to know that trained professionals are handling this often delicate situation. If this route is taken, it is important for management of an organization or institution to keep some employees dedicated to Intranet issues in case the relationship with the outside firm does not end up working out.

Once the Intranet is set up, it is important to keep its content current in order to keep employees using it in the manner for which it was intended. Regular updates regarding school news, notices, students' achievements, lecturers notes, published multimedia resources, research materials, e-mails capabilities, discussion forums which facilitates collaborative project work, peer mentoring, store or host large files which need to be accessed by students and staff etc are ways to keep it from growing obsolete before its time (Huang, Bih-Huang & Yang, 2004).

A full fledged Intranet or even a test version can often be set up quickly and easily once management becomes familiar with how the Intranet works; the possibilities for success are limitless.

Conclusion

The most impressive contribution an Intranet will make to your organization is its communication, coordination and collaboration benefits. The Intranet has certainly revolutionized the information management processes in an organization. Intranet, which has distinct advantage over LAN, has helped in faster data collection and dissemination. It is indeed a challenge to institutions and organisations not only to accept and assimilate this new technology, but also to spice it up with the classical knowledge to further improve the entire information management processes.   An Intranet is a learning organization, capable of integrating people, processes, procedures and principles to form an intellectually creative culture dedicated to implementing total organizational effectiveness. Intranets are relatively cheap and easy to develop because they use the existing technology of the Internet. The value of an Intranet is that it can integrate in one central source a combination of internal, external, formal and informal information. This is an important consideration in the corporate sector where informal information sources are started so highly. Positive communication flows are encouraged and interaction between colleagues and project teams is seen as a valuable way of creating a shared knowledge base for the organization or institution. There is a suggestion however that because Intranets are productive layer in knowledge economy engineered organizations' they are less likely to be really successful in strictly hierarchical organizational structures.

For information services staff the Intranet offers a wonderful range of technologies on which they can develop their skills as Information Management. Information Professionals are becoming webmaster and Intranet coordinators, combining technical expertise with information management ability.

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