

INTRANETS: CATALYSTS FOR IMPROVED ORGANIZATIONAL COMMUNICATION

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ABSTRACT

With increasing frequency, organizations are implementing intranets to improve their internal communication, increase productivity and reduce operating expenses. This paper defines the need for improved internal communication, outlines the history of intranets, explores their benefits, notes the risks and solutions, and offers implementation insights to which an organization can refer.

INTRODUCTION: COMMUNICATION AND PERCEPTION

According to the Professionals in Human Resources Association (2002), “Communication continues to be the primary weakness in most organizations,” (p. 3). It is therefore in the best interest of organizations to identify, implement and integrate systems that improve organizational communication.

In a related recent study, Pruyn, Smidts and van Riel (2001) found organizations that communicate effectively are perceived more positively by their employees. This positive perception nurtures confident, involved and compliant employees. What’s more, “an open climate in which active participation is appreciated will increase feelings of being part of an in-group...may create feelings of self-worth...strongly affects self-esteem, commitment to a group and cooperative behavior,” (Pruyn, et al., 2001, p. 9).

Acknowledging that employee attitudes affect an organization’s success, Pruyn et al. (2001) suggest that:

If employee identification affects business performance, an attractive communication climate can contribute significantly to the long-term success of a company. Managers should therefore pay serious attention to internal communication climate by providing each employee with adequate information and the opportunities to speak out, get involved, be listened to, and actively participate. (p. 10)

TECHNOLOGY: A PROVEN SOLUTION

One proven way an organization can improve its internal communication, magnify the strength of its workforce and increase its odds of success is through the implementation and integration of technology. As noted in Landes (2001), organizations “that perform the best...link everyone into a real-time, interactive network for sharing information and knowledge,” (p. 1).

Despite the potentially high costs of information technology (IT) implementation, a 2002 survey of 142 Fortune 500 executives by the Center for Research on Information Technology and Organizations (CRITO) found “the multidimensional payoffs from IT investment to be better than average in perceived value,” (p. 2). The study also revealed that, “business

executives view information technologies as a way to enhance business value and to redesign and transform business processes,” (p.1).

Specifically, they would be the most likely to invest IT resources into “process, planning and support,” (p. 2). Included in this first of seven categories (of which intranets are a component) are the goals of improving organizational communication, integrating the entire enterprise and enhancing flexibility.

INTRANETS: THE OBVIOUS ANSWER

Translating Internet technology into private networks, intranets enable employers and employees to “obtain and share work-related documents, share knowledge, collaborate on designs, access e-learning and learn about company news,” (Dunne and Horgan, 2001, p. 1). Blending technology with humanity, intranets can benefit an entire organization from the washroom to the boardroom. According to Abraham and Seal (2001):

An intranet facilitates the communication between individuals who have to accomplish a task together...it makes it easier for people...to...use...information technology to carry out their work. (p. 4)

Although only in use since the mid-1990s, intranets were actually derived from the technology behind the Internet and its predecessor – ARPANET (Advanced Research Projects Agency Network). Launched in 1969 by the U.S. Department of Defense, ARPANET was intended to serve as a single, decentralized communications network immune to a nuclear attack (Smithsonian, 2002). Fueled by Cold War fervor, ARPANET grew quickly.

In 1983, ARPANET’s technical foundation was upgraded to support a connected set of multiple networks using the TCP/IP protocol (Hardy, 1998) – the foundation for today’s Internet. By 1990, continued Internet development rendered ARPANET obsolete and it was dissolved by the Department of Defense. However, the Internet flourished.

Initially, the Internet was limited to use by military and academia. Early tools included file transfer, email and Usenet news (Smithsonian, 2002). However, after commercial organizations were granted access in the early 1990s, its evolution accelerated exponentially (as did interest in its pragmatic potential). With the introduction of hypertext transfer protocol (HTTP) and hypertext markup language (HTML) in conjunction with the birth of Web browsers (collectively the Internet’s World Wide Web component), the Internet became relevant to business (Abraham and Seal, 2001). Enhanced multimedia capabilities, robust e-commerce components, improved stability, and easier user interfaces are some of the many recent improvements.

It is precisely because of the Internet’s continued functional and technological improvements that a growing number of organizations have considered the Web as a catalyst for improving their internal communications. According to Abraham and Seal (2001), this is a practical choice:

An intranet, with a Web-based front-end, provides multi-level support in the internal communication of an organization...a means for easy dissemination of organizational information...a forum for exchanging data and information among various units via electronic media, and...a repository of information generated by various parts of the organization. (p. 2)

As the Internet’s functional and technological abilities have grown, so has the number of organizations interested in integrating the technology into their operations. Simple to use, easy to

install and impressively cost-effective, Internet technology is a powerful communications solution for organizations large and small (Sprout, 1995; Abraham and Seal, 2001).

The future of intranet use is very promising. Surmacz (2002a) reports that in 2002, “62 percent of Web development focused on internal systems (content management, publishing tools, infrastructure)...while customer-facing initiatives will make up the remaining 38 percent,” (p. 1). This focus on internal information systems – of which intranets are a prime component – is not surprising considering the myriad benefits they offer.

TANGIBLE BENEFITS: PRACTICAL RESULTS

Intranets excel as pragmatic tools because they provide a flexible, accessible and scalable environment in which employees can easily collaborate. And, despite the high estimated annual expense of operating an intranet – \$1.3 million for a company with up to 1,000 employees to \$51 million for companies of up to 100,000 employees (Nielsen, 2001) – they can help decrease the operational costs of an organization. Cortese (1996) explains, “one of an intranet’s most obvious virtues is its ability to slash the need for paper...documents can be converted to electronic form...and constantly updated for almost nothing,” (p. 1-2).

Intranets also increase performance. In discussing the results from a survey of business leaders, Michael Reene (Surmacz, 2002b), chairman and CEO of an Atlanta Internet firm notes, “upward of 80 percent of people...said...their productivity was enhanced...because of the intranet,” (p. 1).

Ford Motor Company launched its intranet in May 2001 to “cut costs and increase efficiency,” (Kaplan, 2001, p. 2). Connecting more than 175,000 employees in 950 worldwide locations, Ford’s intranet provides access to human resources forms and information, company news, personalized employee data, and more. According to Kaplan (2001), “The portal has saved Ford millions of dollars and thousands of man-hours by putting applications and documents at employee’s fingertips,” (p. 3).

Likewise, six months after the launch of its “@HP” intranet – which links nearly 90,000 employees in 150 countries – Hewlett-Packard saved “\$50 million...on the company’s initial \$20 million investment,” (Duffy, 2001, p. 3). As a result of the new intranet, HP was able to discontinue benefits and payroll paperwork, streamline administrative processes, eliminate call centers, consolidate websites, and reduce printing, fax machine, copier and server costs (Duffy, 2001, p. 3). The “@HP” intranet clearly deserves credit for an increase in organizational productivity and a decrease in operational expenses.

Intranets also offer organizations centralized and secure data storage options – a system that is “much more efficient...controlled and...secure,” (Surmacz, 2002b, p. 2). Restricting access to sensitive data by unauthorized people while increasing accessibility to mission-critical materials by authorized individuals, an intranet reduces the vulnerability of proprietary information. Intranets can also minimize strain on data storage resources – both a time and cost savings.

INTANGIBLE BENEFITS: EMOTIONAL ADVANTAGES

There is also a strong psychological factor for embracing intranets. As Hardy (1998) noted when referencing the theories of Canadian political economist Harold Adams Innis, “changes in communication technology have often accompanied great social change,” (p. 5). Beyond bottom

line benefits, intranets offer many emotional advantages. When built around the needs of its users, an intranet becomes a way of life for employees who might become more loyal to their employer as a result (Surmacz, 2002b).

Wal-Mart Stores, Inc. has benefited from this dynamic. With more than 1.3 million associates and 4,300 worldwide facilities that generated \$218 billion in its 2001-2002 fiscal year, Wal-Mart is the world's largest retailer (Wal-Mart Stores, Inc., 2002). To unify its diverse workforce Wal-Mart has invested heavily in its intranet. However, beyond the pragmatic reasons, Wal-Mart is committed to the emotional needs of its employees. As noted in Surmacz (2002b):

Wal-Mart has a local space for store employees where they can put a picture of their child, their soccer team or brand new car. It's specifically designed to give store employees the opportunity to bond with each other and make a connection.
(p. 2)

On a related note, camaraderie helped Hewlett-Packard implement a payroll reduction in June 2001. In conjunction with an announcement posted on "@HP," an online tool enabled employees to volunteer while displaying the number of their colleagues who had done the same. Eventually, more than 90 percent of HP's staff agreed to the salary cut. In Duffy (2001), Kathy Dolan, director of "@HP," explained that, "the portal played a central role in making the program work," (p. 1).

An intranet can also give an organization a competitive edge by connecting its employees with their collective intellectual capital – an increasingly valuable asset. Research by DeVol and Kotkin (2001) demonstrates that:

Knowledge and the innovation capacities of human capital are...the key source of competitive advantage...is...intellectual capital...Today, the knowledge, skills, experience and innovation potential of talented individuals has greater value than...capital itself. (p. v – vi)

Intranets will increasingly help organizations create and deliver intellectual capital. Surmacz (2000) predicts that, "by 2003, intellectual capital – delivered through the leverage of knowledge management and information management – will be the primary way in which businesses measure their value," (p. 1).

The architects of Ford's intranet understood this and designed their intranet accordingly. "We wanted to help people increase their business acumen by being able to read about company performance...because that will help them make more informed decisions," Martin Davis of Ford explained (Kaplan, 2001, p. 2).

The most compelling argument about the benefits of intranets is that their impact increases with greater integration into an organization's operations. Reflecting on the highly flexible and expandable nature of intranets, Dunne and Horgan (2001) claim that, "the benefits, especially in areas like knowledge sharing, collaboration and productivity, grow exponentially as more employees take advantage of the resources that intranets offer," (p. 2).

This creates what could be called a *circle of success*: organizations implement intranets to achieve pragmatic goals and to realize tangible benefits. However, as a result of the interactive nature of the technology, an intranet also yields intangible benefits (which personalize the organization's goals for each employee). As a result, employees then perceive themselves to be a part of a team and work more diligently to achieve the organization's goals (which they have

come to consider their own). This increased productivity will inevitably lead to greater efficiency and, ultimately, profit for an organization (not to mention lower attrition and higher morale).

REAL RISKS, SECURE SOLUTIONS

Intranets are vulnerable to internal and external threats (intentional or accidental). Cohn (2003) notes “as networks have grown and connected to the Internet, the spectre of the hacker has haunted managers responsible for both delivering information within the enterprise...protecting it from unauthorized outsiders,” (p.1).

However, while external intrusion remains a significant obstacle, Lin (2003) asserts that, “over 80 percent of all computer related fraud is committed by internal users,” (p. 1). Although disgruntled employees represent a significant risk, many employees might accidentally damage or destroy sensitive data (“Intranet Security,” 1996).

The effects of these risks can be significant. In survey statistics presented by Sun Microsystems (1999) it was revealed that, “78% of the companies...reported insider abuse, 65% reported laptop theft, 44% reported unauthorized access, 18% reported theft of proprietary information.” (p. 3). The report estimated total loss of \$136 million to organizations affected by computer crime – with \$50.5 million attributed to unauthorized access alone.

However, there are numerous secure solutions. Firewalls, data encryption, secure socket layers and public key infrastructures are a few of the many options. But, before a single solution is implemented, an organization should develop a comprehensive, centralized network policy including, “overall network security planning, site security policy, approach to security policy and risk analysis,” (Lin, p. 1).

Sun (1999) suggests a nine-step development method. The process includes identifying assets (hardware, software, people and documentation); prioritizing all hardware and software; defining known risks; writing an acceptable use policy; identifying necessary safeguards (logging and auditing systems/incident response programs); creating an action plan; and communicating the policy to all potential users. A security plan focused on access control, privacy, authentication, authorization, integrity and management is also encouraged.

Interestingly, although intranets can be complex technical systems, the most effective defense against potential threats is natural instinct and simple strategy. Despite continuing advancements in technology, the human factor almost always plays a pivotal role in the development, use and protection of intranets.

IMPLEMENTATION INSIGHTS

The potential success of an intranet can be assessed in three segments: support (from management and employees), structure (of the development team and architecture of the intranet), and sensibility (the relevance of an intranet’s content to its audience and the feasibility of integrating the intranet into their daily operations).

According to Duffy (2001), “The most critical support for an intranet...has to come from the top,” (p. 5). If executives do not embrace an intranet and make resources available, the project will founder. However, this does not mean that intranets should only be designed for upper management. Rather, companies should, “realize that they’re designing for the users,” (Nielsen, 2002, p. 1).

Structurally, responsibility for the development of an intranet should be shared between the IT department (to manage the technical needs) and departmental representatives (to create content and handle workflow) (Surmacz, 2002b). Nielsen (2002) further suggests development teams should be small, but made up of experts in web design, employee communication and web technology.

Architecturally, a company should begin with a plan that, “includes a value analysis of the site’s offerings, specifies the strategic business objectives and describes the content...spell[s] out where data will be housed, how the site will be marketed...and what training will be required,” (Duffy, 2001, p. 3). Search functionality, metrics (tools with which usage patterns can be tracked) and site maps are also important elements to consider (Duffy, 2001).

Content on an intranet must also be relevant to users. Abraham and Seal (2001) encourage companies to install “tasks...all employees must use...in such a way that using the intranet will be necessary to carry out the task,” (p. 3). Duffy (2001) further recommends that access to the content and services available on an intranet be prevented by other means, thereby making it an invaluable interactive tool.

FINAL THOUGHTS: LOOKING AHEAD

Intranets will undoubtedly play an increasingly important role in organizations of every shape, size, purpose and location in the coming years. Offering interactivity, accessibility, availability, expediency, relevancy and community, an intranet can be a powerful asset in the communication arsenal of an organization (Landes, 2001). Further, the potential decrease in operating costs and increase in productivity makes an intranet highly economically viable. Even if the ongoing development and maintenance costs of an intranet partially negate the potential savings, the opportunity for improved internal communications makes the investment entirely worthwhile. Furthermore, if designed carefully and creatively, an intranet can greatly enable an organization to become a leader in its market and ultimately position itself for success on a much larger scale.

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