



Finding ROI

Measuring Intranet Investments

A Prescient Whitepaper

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GLOSSARY:

RETURN ON INVESTMENT (ROI)

A measurement, expressed as a percentage, of the total value of a given investment divided by the cost of the investment. Example: a \$100 investment is worth \$133 one year later, yielding a one-year ROI of 33.3%.

INTRANET

A private network, similar to the Internet and using the same protocols and technology, that is contained within an enterprise. It may consist of many inter-linked local area networks (LANs), desktop computers, websites and portals, and email system(s).

CORPORATE PORTAL

A primary website on the enterprise intranet. A web-based gateway to most, if not all, tools and information on the enterprise intranet. The portal can be a 'catch all' for all of the intranet, or a business unit or function specific portal (i.e. Sales or HR portal).

EXECUTIVE SUMMARY

As with any critical business system, an intranet or portal must deliver measurable performance and remain accountable to the investment. If the site's value is not being measured, then it risks failing the needs and demands of employees and management.

When asked how executives determine whether an intranet or portal is delivering value, most people typically point to reducing costs and improving productivity.

Of course, IT budgets are increasingly tied to company-wide business and strategic initiatives. The cost justification for any expenditure, including IT must have a clear bottom line that answers the question, "What's the payback?"

In recent years, business challenges and subsequent solutions/ applications have been the driving force behind intranet investments. They will continue to play this role in the future.

Executives will make investments in intranets and portals (see definition in the adjacent glossary) if such investments spur growth, cut the cost of operations, and/or help enhance the customer experience (retaining and building the customer base).

The challenging economic climate means that more and more organizations will allocate dollars to IT systems and applications that can demonstrate a measured solution and ROI to a business problem or provide enhanced service and growth.

ROI ANALYSIS:

AGGRESSIVE STUDIES:

ROI: > 1000% > payback in 8-24 weeks

CONSERVATIVE STUDIES:

ROI: 23% to 88% > payback in 1-2 years

Measuring the precise value of an intranet or portal is likely impossible. It is, at best, an imperfect science. However, more and more organizations are measuring the ROI of their intranet investment.

While only a handful of technology companies measured intranet ROI a few years ago, there are encouraging signs of change. A study,

conducted by Prescient Digital Media Ltd., found that 6% of organizations undertake ongoing, specific measurement of the ROI of their intranet, while occasional measurement is undertaken by 26% of the respondent organizations.

While extensive ROI measurement has not yet become mandatory at a majority of organizations with intranets, ROI is considered a priority by 76% of the survey respondents.

How important is the ROI of your intranet or portal to your organization?	Unimportant	6	
	Somewhat unimportant	6	
	Neither important nor unimportant	6	
	Somewhat important	36	
	Very important	40	
	Don't know	5	
	Total	100%	

ROI STUDY:

Of the respondents to the Prescient Digital Media ROI survey that undertake 'rough estimates' of their organization's intranet, answers varied from \$0 to \$20 million. The average annual ROI of respondent intranets fell just shy of \$1 million (\$979,775.58).

While less than 20% of organizations have measured specific benefits, a majority of organizations have at the very least made a 'rough estimate' or guess of the value of their ROI.

Rather than attempt to measure the intranet or portal's entire value, those companies that are successfully gauging value are measuring specific benefits. This paper lists intranet benefits in 10 key categories – including hard costs, increased revenue, etc. – with two supporting categories: content management and procurement.

The precision, scope of work and execution required to build and maintain a successful intranet or portal is massive – from governance to content management, and from technology to business processes. At the heart of a successful intranet is the strength of the underlying plan. Failure to develop an integrated plan that accounts for an organization's structure, stakeholder and user requirements will almost certainly ensure failure and, with it, a loss of significant time, money and jobs.

Finally, while appraising the ROI of an intranet or portal is critical for most executives, there exists a great deal of untapped, intangible value that is perhaps even more critical than the measured dollars and cents. When properly deployed, intranets improve communication, collaboration and employee satisfaction, which in turn can improve productivity. All benefits are clearly important to any organization, but not always a measurable ROI.

INTRODUCTION

The following 'white paper' is intended to stimulate thought and discussion for measuring the return on intranet and corporate portal investment.

It also documents different benchmarks and success stories of leading enterprises that successfully measure such value.

Intranets and corporate portals are widely valued for: streamlining business processes and driving operational efficiencies; enhancing communications and collaboration between employees, management, customers, and partners; and significantly reducing the cost of internal business functions; and increasing company sales (revenue). However, intranets and corporate portals can be extremely complex systems and, therefore, at times, expensive endeavors.

Despite the expense, many organizations understand the implicit and/or explicit value and are willing to make notable intranet investments. A study, published in 2002 by the UK Department of Trade and Industry, revealed intranet and extranet adoption at about 60% of North American, UK, German and Swedish companies. A 2001 META Group study of Global 2000 companies found an adoption rate of 85% for implemented or developing intranets. It is not only large multi-nationals that understand the benefits and potential rewards of a well-funded, high-value intranet. According to Modalis Research, more than 70% of all small and medium-sized businesses, including government agencies and not-for-profit organizations, believe that having an intranet is important and either have an intranet or plan to deploy one (2001 study).

A META Group study revealed that 80% of surveyed companies realize a positive ROI with an average annual return of 38%.

An IDC survey found that an average intranet investment of about US\$1 million at six leading companies returned benefits of US\$5 million per company.

(Source: IDC SURVEY: HR Intranets, Corporate Leadership Council, June 1999; META SURVEY: Microsoft.com)

CASE STUDY:

Cisco System's intranet portal, Cisco Connection Online, is the source of much pride and significant ROI for the California-based technology giant. While Cisco clearly understands the inherent value of the intranet, it also carefully tracks and measures specific ROI benefits including purchasing, expense reporting, printing and distribution, and more. Cisco estimates that the total ROI savings for its entire intranet in fiscal 2003 surpassed \$2.1 billion.

The growing popularity of portals, perhaps the hottest intranet system or application today, was highlighted in a report by Gartner, which estimates the enterprise portal market as a whole grew at a rate of 16.5 percent and now tops \$1.1 billion. In fact, IBM estimates that the portal market topped \$1.4 billion in 2008 (with IBM leading this market segment with about 1/3 of all sales). However, despite the investment, very few organizations measure the value of the investment.

While early intranet deployments benefited communications, sales and marketing, and human resources, other corporate areas including operations, manufacturing, customer service, engineering, finance, and IS/IT are also reaping the rewards. However, while implicitly understanding an intranet's value is second nature for many leading organizations, measuring the value remains a significant challenge.

CASE STUDY:

Rogers Communications is a major telecommunications company with over 100 locations across Canada. With its national reach and need to remain competitive, Rogers implemented a new corporate-wide HR portal. Prior to doing so Rogers engaged in a thorough assessment of its internal environment as a precursor to developing a strategic plan.




The ensuing plan included detailed functional recommendations, the information structure detailing the portal's navigation, creative design, content recommendations, and a business case indicating current and future ROI.

Before the implementation of the new corporate-wide HR portal, Rogers faced efficiency and practical issues such as multiple intranet sites in each operating company, content that was not maintained or badly maintained, and duplication of information on various sites.

The plan saw the creation of a new enterprise HR portal, HR Xpress. The new portal attracted greater use and an increased awareness of other intranet sites for an estimated \$100,000 in annual administrative savings.

(Source: Wendy Chiu, Rogers Communications, Federated Press, September 2002)



Once planned, executed and launched, an Internet, intranet or extranet site cannot rest on its laurels. The pace of technology, customer and employee demands, and competitive pressure require that an intranet achieve and exceed expectations and continually show measured value.

As with any critical business system, the intranet must be delivering measurable performance and remain accountable to the investment. If you are not measuring your site's value, then you risk failing the needs and demands of customers, employees and management.

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ROI DILEMMA

Appraising the value of corporate intranet and portal investments is, at best, an imperfect science. In fact, most analysts contend that precise ROI measurement is not possible due to an intranet's expansive and far-reaching nature. However, while measuring the precise ROI may not be achievable, there are means by which many organizations can and do quantify both potential and existing ROI.

While 76% of respondent organizations believe ROI to be important or very important, only 6% of organizations undertake ongoing, specific measurement of the ROI of their intranet.

Generally speaking, intranet ROI can be lumped into one of three broad categories:

1. Hard savings that result from the cost avoidance of printing or distributing documents
2. Latent, soft savings from enhanced access to information, communication, collaboration, and decision-making, among other things
3. Increased revenue as a result of an intranet implementation

The principal challenge for appraising intranet ROI is that it is often easier to assess the ROI of specific applications deployed on an intranet than measure the ROI of infrastructure and/or the portal itself. In fact, most demonstrable ROI case studies highlight application ROI – such as employee self-service and e-procurement – rather than the ROI of the entire intranet or portal. Hence the chicken-or-egg dilemma: you cannot aggregate and deploy high-value web applications without the underlying infrastructure, but it is difficult to justify the infrastructure investment without the greatly desired ROI from such high-value applications.

To what extent is your organization measuring the ROI of your intranet or portal?	Not at all	23	
	Only guesswork	24	
	Considering measuring	18	
	Occasional measuring	24	
	Ongoing significant measuring	6	
	Don't know	4	
	Total	100%	

Undoubtedly, this challenge is one of the key factors why so many organizations value ROI, but few are measuring it. Prescient's Intranet ROI study found that while 76% of respondent organizations believe ROI to be important or very important, only 6% of organizations undertake ongoing, specific measurement of the ROI of their intranet. Occasional

measurement is done by only 24% of organizations and 51% either do no measurement (or guess).

Finally, while most ROI is thought to come from specific applications, it is important not to lose sight of the role the intranet home page and information architecture in delivering this application ROI. It is helpful to think of the intranet as the “shopping mall” to the application “stores”. Why do stores like the Gap, Target, Nordstrom’s, etc. locate in malls? Malls exist because they attract a lot of shoppers and therefore retailers like the Gap are willing to pay a lot of rent to realize the sales and ROI that come from those shoppers. If the shopping mall doesn’t exist, a lot of retailers lose out. The stores don’t get the sales, and they don’t get the ROI.

The intranet benefits applications as the mall benefits stores; intranets drive traffic to applications which reap the big ROI.

CASE STUDY:

A European hospital intranet had 8,000 different guideline documents (e.g. relating to medical procedures, etc.) – with no search engine. Traditionally, users (doctors and other professionals) had to navigate a folder structure. A discussion with the hospital’s risk manager revealed that the hospital spent \$5 million in insurance. But, if they could put in a search engine to help doctors find medical guidelines within 30 seconds, they could reduce their insurance substantially.

The hospital spent \$100,000 on the search engine, and received full pay-back within 3 months, and saved \$1 million in insurance as a result.

(Source: Martin White, Intranet Focus, 2009)

INHERENT VALUE

It is the less tangible, inherent intranet benefits that are the most difficult to measure, and potentially the most valuable.

The implicitly understood and inherent worth of a corporate intranet is often likened to the value of a telephone system. As with the phone system, most organizations, if asked, could ascribe an inherent, latent value to the intranet. Has your organization ever been asked to measure the ROI of its phone system? Not likely. Most people and organizations inherently know and understand the value of the phone and don’t require

a detailed ROI balance sheet. Most organizations and executives know full well that the telephone is a mission-critical instrument for most, if not all, organizations. In many ways, intranets are like telephone systems – they assist us in accomplishing mission-critical work all the time. Yet, much of their value is latent, with unseen savings that are inherently or implicitly understood.

Likening a robust intranet or corporate portal to a telephone system will help to illustrate your case, but it likely won't persuade your CFO or accountant to open the vault. To do that, you need to provide tangible, measured intranet ROI.

There are three general approaches for measuring intranet ROI:

1. Ascribe the intranet a value equal to the investment, dollar in equals dollar out
2. Ascribe a non-monetary value to the intranet as a collaborative communication and knowledge management asset
3. Measure and appraise specific benefits from implementing an intranet and/or corporate portal

The first two approaches are rather obvious, but should not be ignored by any organization. However the third approach – measuring specific benefits – is the most precise and tangible means for quantifying intranet ROI. To this end, the ROI measurement of specific intranet benefits is the focus of this paper.

CASE STUDY:

In 2000, brash Oracle CEO Larry Ellison made waves when he announced Oracle would save US\$1 billion in operation efficiencies through their internal e-business initiatives.

Oracle's 2000 savings include \$200 million from consolidated IT; \$550 million in improved customer relationship management (CRM); \$150 million in e-procurement savings; and \$100 million in savings from employee self-service tools (particularly HR tools).

In 2001, Oracle forecasted an expected savings of \$2 billion with the majority coming from improved CRM.

(Source: Bill Bergen, President, Oracle Canada, "Business Without Boundaries," May 29, 2001)

BENEFITS

There are many ways to organize and segment the measurable benefits from intranet investments. While this paper opened by dividing ROI into three general categories – hard savings, soft benefits (savings) and increased revenue – these are general in nature and do not provide a framework for actual measurement.

For the purpose of understanding ROI measurement from a macro perspective, these generic categorizations suffice. To fully understand the full potential of an intranet for an organization seeking a more explicit approach, we can undertake an even more detailed means of segmenting ROI.

A glimpse into the expected and measurable ROI benefits at a standard organization was highlighted in a survey conducted by Darwinmag.com in 2001. Darwin asked 138 business executives to rank the top five goals or expectations from their Information Technology investments.

Looking back on past year, executives ranked their expectations as:

1. Empower employees with access to information
2. Create/increase competitive advantage
3. Improve customer service
4. Reduce cost of doing business
5. Improve efficiency

However, looking forward to the upcoming year, the rankings changed and the original top expectation did not even make the list:

1. Create/Increase competitive advantage
2. Reduce cost of doing business
3. Improve efficiency
4. Improve customer service
5. Generate more revenue

Verizon's intranet portal, Ventana, supports the telecommunications company's wholesale operations centers. Six thousand users – including internal call centre staff, service reps, and senior management – use the portal for message boards, information on methods and procedures, tariff and regulatory information, and maintenance data.

The portal also delivers more efficient communications. Prior to the portal, reports were sent out to 900 users three times a day by email. Now each report is posted on the portal, eliminating 15 million emails per year – and the attached documents to each.

(Source: Goodwin & Nielsen, Building Intranet Portals: A Report From the Trenches, April 2003)

To meet these expectations and to plan to deliver specific ROI, and to measure this value, a more detailed approach is required. To offer a general framework for examining and measuring the potential ROI in organizations, Prescient segments intranet benefits into 10 broad categories.

Specific examples and case studies for each of the areas above are offered in the following pages.

Intranet Benefits

1. **Hard Costs**
2. **Sales**
3. **Productivity**
4. **Competitiveness**
5. **Application Access**
6. **Infrastructure**
7. **Collaboration**
8. **Time To Market**
9. **Customer Service**
10. **Human Resources**

CASE STUDY:

Mitre Corp., a not-for-profit technology company that services several US federal agencies, has measured staff productivity in a number of critical areas:

Time Submission: By moving manual timecard submission and tracking to the intranet, employees save an estimated 1 minute per day.

- **Expenses:** By reconciling expenses on the intranet, each employee saves about 2 minutes per day
- **Content Management:** With advanced content management allowing for greater ease of converting and publishing documents, employees save an estimated average of 5 minutes per day
- **Help Desk:** By moving help information online, help desk staff save an average of 8 minutes per call
- **Job Pricing:** By automating key price information, job pricers save about 1 hour per pricing job

By multiplying the time savings by the salaries of employees (using a conservative estimate of three-quarters of employees), Mitre estimates that their intranet affords \$12.8 million in improved staff productivity.

(Source: Debby Young, CIO Web Business Magazine, May 1, 2000)

1. HARD COSTS

Hard cost savings and avoidance – from paper reduction and reduced information distribution, to labor reductions – are the most commonly reported ROI benefits, and perhaps the easiest to find and calculate.

BENEFITS:

- Reduced paper printing and circulation
- Software downloads rather than manual installation
- Headcount reduction and savings resulting from automated functions
- Reduced or eliminated processing errors

2. SALES

Many successful sales organizations rely on sales software and web applications to improve their sales success. Online sales tools allow sales representatives to access greater volumes and media-rich (multimedia) information faster than previously possible – driving increases in sales. Intranet sales tools vary from applications that allow the sales force to enter and access customer data, track sales leads, forecast sales and profit margins, schedule joint meetings and more.

BENEFITS:

- Better customer service leading to more sales
- Reduced time to market for promotions
- Increased collaboration amongst sales people
- Enhanced collaboration between reps and customers
- Migration of sales brochures to the web

CASE STUDY:

PR agency Ketchum deployed a portal to increase sales for the company. Using an independent research firm, META Group, it was estimated that the Ketchum intranet could lead to revenue growth between 0.5% (conservative estimate) and 5% (liberal estimate).

Using 2000 revenues of \$167 million as a baseline and a compound annual growth rate of 10%, Ketchum could increase its sales by \$18,350,640 (using moderate estimates) over 3 years.

(Source: META Group, myKGN: A Return-on-Investment Study, June 19, 2001)



CASE STUDY:

The SodhexoUSA intranet (see Best practices case study: Sodexo USA) features a highly innovative, and valuable sales generating tool. SuperSleuth is an intranet application that encourages employees to submit sales leads and prospective clients via the intranet. Successful leads submitted via the SuperSleuth intranet page generate cash rewards of up to \$1000 for the person making the submission. Sodexo says it has contributed to a 100% increase in sales leads in the past year and led to US\$90 million dollars in managed volume (net client sales including sales by client).

SuperSleuth is an intranet based tool that would be no means receive that volume of leads nor generate the dollars it does without the intranet to drive those leads. The intranet home page promotes the tool and generates the traffic that reaps the reward.

4. COMPETITIVENESS

“An organization will only be competitive if it can learn faster than its competitors,” is a favorite saying of renowned tech writer and speaker Don Tapscott. It’s no secret that intranets are becoming the cornerstones of knowledge management (KM) and learning at leading Fortune 500 companies. With faster access to greater volumes and more accurate information and knowledge, users are driving organizations to learn and respond more quickly in the marketplace.

BENEFITS:

- Just-in-time access (access when needed)
- Improved access to internal and competitive data
- Improved information sharing (KM)
- Opportunities for new business

By moving all HR policy and benefits information online, the Bank of Montreal (BMO) has accrued many savings from the elimination of paper, fax, copying postage, courier costs, etc.

Notwithstanding these hard costs savings, BMO measures the savings from reduced processing or “finding” time by HR personnel (to find and pass on information) at approximately \$700,000 per year.

(Source: Sally Grande, BMO, “The Journey from HR Intranet to “e-HR”, June 28, 2001)

5. APPLICATION ACCESS

Productivity is also determined by the technology employed by the user, including hardware, platform, and browser. By aggregating application access under the corporate portal, all users will be able to benefit with access to previously unused or seldom used tools. Access speed is also greatly increased as users access applications regardless of their location, which also improves employee productivity.

BENEFITS:

- Centralized access to multiple applications and platforms
- Desktop access by all employees, from anywhere
- Home access enables employees to work remotely
- Multiple, cross-platform integration is reduced

6. INFRASTRUCTURE

Mainframe, legacy and proprietary systems and applications are expensive to buy, maintain and staff. Utilizing Internet technology as the foundation for the corporate intranet can save organizations a great deal of money – in both capital and maintenance costs.

BENEFITS:

- Reduction of server and client operating costs
- Special training for web applications users is eliminated or greatly reduced
- Systems integration is less complex and costly
- Application development is less complex and costly

Employee productivity surveys have revealed that employees in an average corporate environment can spend between 30 – 60% of their productive time just searching for information to do their job. To reduce their knowledge deficit Shell International invested US\$6 million in a KM solution to facilitate improved information and knowledge exchange amongst its 10,000 employees. A review of operations concluded that the KM solution is generating annual benefits of at least \$300 million – or an annual ROI of 5000%.

(Source: ““KM ROI””, Ideas Magazine, May, 2001)

Legacy electronic data interchange (EDI) systems (usually custom-built and proprietary systems that conduct electronic transactions between one or more business partners) are notorious for being user unfriendly and very expensive. Many analysts and organizations alike agree that switching from EDI to an Internet model can result in savings of up to 95%.

CASE STUDY:

An winning intranet has many successful qualities and features. The QAS intranet is a winner at many levels – rich with tools and demonstrable, measured value.

QAS is a World leader in address management and data accuracy solutions. Based on data secured from national postal authorities and other leading sources, QAS captures, cleans and enhances the integrity of name and address data. QAS has a geographically diverse set of 400 employees with offices around the globe in the U.K. (headquarters), U.S.A., Canada, Singapore, Australia, and across Europe.

A winner of a coveted 2005 Information Management Award for Knowledge Management, the QAS intranet, iQ, has many winning attributes including:

1. A well defined plan
2. Robust and flexible technology
3. Rich applications
4. Measured benefits & ROI

Measured benefits

While awards are nice to receive, the QAS intranet has received more than just kudos – it is delivering measured results and value for the business. Some of the benefits include:

1. Measured return on investment (ROI)
2. Improved line management decision making (e.g. holiday and purchase forms)
3. Increased sales opportunities fomented by better sales collaboration and cross-selling
4. Improved employee communications and collaboration
5. Enhanced levels of customer service

Costs savings achieved:

1. Online Expenses – saved four person days per month.
2. Finance savings - online workflow has reduced administrative processing time from two weeks to one day
3. Purchase Ordering - saved four person days per month and an ROI savings of US\$20,000 per year
4. Sales Proposal Builder – streamlined proposal and sales process saves almost US \$25,000 per year
5. Intranet Use - 115% increase in usage of the intranet (infers a yet to be measured productivity gain)

BENCHMARK:

Toronto-based Ipsos Reid conducted a survey of organizations with Knowledge Management (KM) systems to measure the impact on process savings.

When asked if the organization had measured the ROI of KM processes, 84% said no. Of those that had measured the ROI, 5% said they had with an average (mean) ROI of 41% while 7% had a measured dollar savings of CDN\$41,278.

(Source: "KM ROI", Ideas Magazine, May 2001)

7. COLLABORATION

Metcalfe's Law states that the number of possible cross-connections in a network grows as the square (exponentially) of the number of computers in the network increases. In short, as the number of connections between computers and users increases, the value of the network increases at an exponential rate. The same value could be ascribed to the connected users of an intranet: the value of an organization will exponentially increase as more connections and collaboration points are made between intranet users.

BENEFITS:

- Reduces time and space constraints
- Support for virtual teams in multiple locations
- Knowledge Management – enhanced communications and information sharing
- Online training (e-learning)

CASE STUDY:

Toronto-based Ontario Power Generation (OPG) employs 15,000 people and operates 80 power-generating stations in Ontario. In early 2001, OPG began implementing a new electronic document management system (EDMS) serving its corporate group of 3,000 employees. Initial benefits will include email simplification which will dramatically cut-down on the number of document copies – sometimes up to 5,000 – being sent as an email attachment. While this annual benefit has been estimated in the six-figure range, it also aims to cut in half the amount of 'information search time' – sometimes up to 50-60% of an employee's time – producing a potential savings of CDN\$45 million per year on an initial EDMS investment of CDN\$1 million.

(Source: "KM ROI", Ideas Magazine, May 2001)

8. TIME TO MARKET

An effective intranet enables an organization to attract more customers and market share by responding faster to market demands.

BENEFITS:

- Faster development of products and services
- Reduced supply chain cycle with suppliers, partners, customers, etc.
- Real-time information sharing
- Reduced inventory requirements
- Reduced working capital requirements
- Faster invoicing and purchasing

Cadence Design Systems used to conduct regular, remote training sessions, two to four times per year for more than 400 of its employees. Each session cost \$260,000. For the same price, Cadence began conducting the training via web conferencing – dramatically improving the quality of skills training and greatly reducing the huge travel expenses.

(Source: Placeware.com)

9. CUSTOMER SERVICE

To web-enable customer service functions is to arm both internal customer service reps and external customers with more immediate information. Through the use of email, FAQs and service policies, organizations can dramatically improve the information flow and reduce the cost of customer service.

BENEFITS:

- Fewer employees required to service customers
- Availability of support and reference information
- Customer and employee access to subject matter experts via email, etc.
- Availability of 24 hour, 7 day per week support
- More accurate and consistent information (internal information matches external information)
- Centrally-managed information repositories

Use of KnowledgeSpace, Arthur Andersen's proprietary Knowledge Management intranet, has exceeded 90%, and the usage rate within the Business Consulting Division is 95%. In addition, call volume to the existing global service hotline has dropped by 50% since the implementation of KnowledgeSpace – reducing customer service costs considerably.

(Source: Knowledge-Management Intranets, Corporate Executive Board, 2000)

CASE STUDY:

The answer to any question at Cisco Systems is “Check the Website” (intranet or Internet). By webifying most of its customer service functions – questions, answers and tools – through their intranet and Internet sites, Cisco is able to resolve 70% of help desk calls online. As a result, Cisco has accrued savings of US\$86 million saved through electronic downloads and \$107 million through online configuration and documentation while increasing customer satisfaction by 25%.

(Source: Cisco Systems)

10. HUMAN RESOURCES

While the business culture, personal compensation and the opportunity for advancement are all critical motivators of employees, many employees will also cite the ‘right tools to do the job’ as a prime motivating factor. By arming employees with the right tools and technology to perform their work, employee satisfaction and retention rates will be greater while improving productivity and saving money.

BENEFITS:

- Higher employee retention
- Reduced training expenses
- Reduced knowledge loss and resulting competitive threat
- Improved productivity and reduced ‘downtime’ due to employee desertions

Mitre Corp. estimates that it saves US \$860,000 a year in clerical staff overhead by using online, automated property tracking, in lieu of physical audits, (600 clerks across the company at US\$9 per hour for four weeks). Additionally, Mitre calculates that the intranet enabled it to retain 15 teleworkers that would have otherwise left the company, saving Mitre about US\$300,000 in recruiting costs during 1998 (about US\$20,000 per employee).

(Source: Debby Young, CIO Web Business Magazine, May 1, 2000)

BENCHMARK:

To enhance existing training programs and to find cost savings Compaq introduced online training in mid-1995. Today Compaq's Learning Utility is a single interface and search and retrieval tool to access to all training courses and information resources at the global computer company. The Utility supports both novice and expert users and provides access to proprietary, vendor and local content and is divided into three categories: Licensed Courseware (from market vendors such as SmartForce and business specific companies such as Microsoft, Cisco, etc.), Compaq Specific Courseware (Compaq product specific courses, etc.) and Documentation (downloads of hardware/software manuals, sales advisory guides, etc.). In total Compaq's Learning Utility offers over 3000 courses and over 5000 documents.

In 2000, total learning downloads (and courses taken) equaled 342,412 with the average download cost reduced from \$9.59 in 1999 to \$7.78 in 2000. Excluding travel costs that would have been saved by employees having to previously travel to attend training, the Utility achieved total annual savings surpassing US\$13 million in 2000.

(Source: Jim Melanson, Director, Compaq, "Workforce Planning & e-Learning", February 28, 2001)

CASE STUDY:

The government of Alberta's corporate intranet, AGENT, serves 24 government departments and 24,000 employees. In August of 2000, AGENT began to rollout a number of HR self-service tools for employees as part of a three year plan. Online self-service includes accessing, updating and managing personal information for compensation, benefits, absence tracking, personal contact information (including emergency contacts), and time benefits including flextime. Planned tools to be phased in include expense claims, updating information on dependents, online training, full benefit selection and full time tracking. AGENT's self-service program has a three-year budget of CDN\$4.8 million with a budgeted return on investment of CDN\$1.3 million per year.

(Source: Marsha Capell, IMGIS, Government of Alberta, "Developing an Eight Stage Approach to Implementing Employee Self-Service ", June 27, 2001)

A BALANCE

While precisely measuring the ROI of an intranet's far-reaching benefits would be difficult for even the best accountants and auditors, measuring just a few of the surface benefits can sway even miserly CFOs to open the coffers. As demonstrated by the many examples, benchmarks and case studies highlighted in this white paper, many successful intranet organizations do achieve and measure significant 'hard' and 'soft' intranet ROI. This ROI is often more than enough to justify the intranet or portal's existence and frequently achieves a higher level of appreciation as a value added, mission-critical business necessity.

Generating significant return on investment is not reserved solely for large organizations; small and medium-sized organizations also extract measured value from their intranets and portals. For example, the American Medical Association in Chicago has only 1,400 employees, yet has deployed 50 to 60 intranet applications. Despite its small size, the AMA estimates that the return on investment for its HR self-service tools had hit 40% by early 1999. (Source: Intranet Leap Of Faith, CIO.com, May 1999)

INTRANET 2.0

Like Web 2.0, Intranet 2.0 represents the evolving collection of social media tools that are revolutionizing the intranet, and the way organizations and employees connect and collaborate. Specifically, Intranet 2.0 tools like blogs, wikis and social networking sites promote collaboration, people connection, and ongoing dialogues that augment, but not replace the traditional top-down communications model.

Evolving to Intranet 2.0

Intranet 1.0		Intranet 2.0
Corporate news	▶	Submit News
Executives speech	▶	Executive blog
Taxonomy	▶	Folksonomy
Quick poll	▶	Discussion forums
Annual employee broadcast	▶	Regular podcast
CMS	▶	Wikis
Directories (A-Z)	▶	Tagging
Sticky content	▶	RSS

CASE STUDY:

T. Rowe Price adds 1,500 workers to work in its call center for each tax season (for approximately 3 months). Training these workers is large, involved exercise, but imperfect.

Price's corporate trainers got smart and transferred the entire training program to a wiki. Price encouraged new employees to take notes during the sessions and then add notes, comments and recommendations to the wiki. As a result, the company estimates that it saves one to two minutes per call at \$20 per minute (the net result is in the millions of dollars).

CASE STUDY:

Sabre, the company that runs most of the world's airline flight reservation systems among many other systems, is an impressive example of the power of Intranet 2.0. With about 9,000 employees, they are a medium-sized company that have embraced Intranet 2.0 with spectacular results. Building from scratch, Sabre launched their own intranet social networking site for employees (built on Ruby on Rails) called SabreTown.

SabreTown has all the features of most social networking sites:

- Employee profiles with lots of details
- Shared photos
- Blogs
- User commenting
- Network connections & feeds
- Enterprise question & answer functionality

On Sabre Town, users can post a question to the entire organization, and the site's inference or relevance engine will automatically send the question to the 15 most relevant employees (based on what they've entered in their profile, blog postings and other Q&As that have been previously posted). The results have been spectacular: 60% of questions are answered within one hour; each question receives an average of 9 responses. The system has already led to more than \$500,000 in immediate, direct savings for the company, with much greater benefits not yet measured.

SabreTown's success is summarized in one spectacular metric: 65% of all Sabre employees became active SabreTown members in the first 3 months! More than 90% of employees are active today.

Forrester estimates the enterprise Web 2.0 (Intranet 2.0) collaboration market will hit \$1.8 billion by 2013.

According to Forrester, social networking tools and internal wikis will have the greatest impact on workplace collaboration (see [Forrester Projects Which Enterprise Web 2.0 Collaboration Technologies Will Grow, Which Will Decline](#)). Technologies such as forums and RSS have a future in the enterprise but are currently underused, while podcasts have a limited future as an enterprise tool to increase productivity and enhance collaboration.

Whether you're ready or not, your organization can no longer ignore Intranet 2.0. Employees are reading blogs on the web, contributing to wikis, listening to podcasts, and networking via Facebook, MySpace, Orkut, or others. Moreover, they're probably talking about your organization, and you're not part of the conversation.

Before they implemented their own employee social networking site, MyBT, BT (British Telecom) discovered that 4,000 employees had voluntarily joined a BT Facebook community in their own time. Employees were connecting online, in their own time, talking about BT, and BT wasn't part of the conversation.

“Many believe that trying to stop social media tools seeping onto intranets is a futile activity anyway, so it is better to introduce them on your terms

CASE STUDY:

BlueShirt Nation (BSN) is a secure and private social networking site for more than 100,000 Best Buy employees. Established by Best Buy as a means of engaging employees for ideas for innovation and improving the business, the online community encourages discussion about whatever they want to talk about (e.g. pets, sports, etc.).

“In general, they talk about how to make Best Buy a better place,” says founder and sponsor Gary Koelling. “Improve on the things we don't do well, share the things that we do do well, talk about and express the culture that we have, talk about customers- both good and bad.”

Some control was sacrificed to help increase the engagement which among other things encouraged employees to participate in a video contest that promoted their 401k retirement campaign. Employees were encouraged to upload their own videos to the site as part of the contest (see a sample at [Best Buy Using Social Media for Employee Engagement](#)). Out of 140,000 Best Buy employees (almost all young), BSN helped increase the number of employees signing up for 401(k) accounts by 30%, and no doubt has contributed to a significant increase in employee retention in a tight staffing market.

in a managed way,” says BT's social media chief Richard Dennison, who quite candidly shares this though and BT's work on his [blog Inside out](#).

While BT's management was reluctant to introduce these tools to employees, they really had little choice: employees were already using them and BT was in danger of being left out, and left behind. Adds Dennison: “If you don't think about what value you can deliver in an enterprise 2.0 environment, you are going to become irrelevant!!”

Intranet 2.0 has indeed exploded at BT. In addition to social networking, BT employees blog, podcast, collaborate in discussion forums, and they wiki too. In fact, the wikis are so popular and successful that there are

more than 750,000 employee wikis – and the vast, vast majority of them are dedicated to business topics that help BT compete in the global workplace.

According to Prescient Digital Media's study on Intranet 2.0 (with more than 430 participating), these numbers are very average indeed (though much, much lower in medium size, and small organizations) and echoed by many recent studies: most organizations have not introduced Intranet 2.0 tools, but want to.

CASE STUDY:

At Placemaking, the entire intranet is built on a wiki platform (Intranet case study: Intrawest Placemaking). A Placemaking project manager using the intranet (wiki) created a page about a method of finishing concrete floors that creates an appearance better than tile at a substantially lower cost – saving the company \$500,000 and reducing the project timeline.

Other project managers in Florida and Nevada posted comments to the page, asking further questions and adding comments. In response, Hartigan posted photos of the finished job and addressed their comments. The other construction managers planned on using this valuable knowledge in future projects, potentially saving the company millions of dollars.

Many, many others of course have blazed that trail and so while some organizations struggle with the 'how', IT and communications managers need only look to the trailblazers like BT, IBM, and many others that have shared their successes.

RECOMMENDATIONS FOR ADOPTION:

Adopting an intranet wiki or blog however should not be done without the requisite planning and change management. Here are a number of suggestions for proceeding:

1. Listen - Understand and monitor the social web to see what is being said about you, and ask your customers / employees what they want.
2. Monitor - Ensure you're aware of which community websites (e.g. YouTube) your audience and competitors are using
3. Benchmark - Understand the ingredients of a good blog, wiki or podcast; watch and cherry-pick from the leaders
4. Leadership – Senior management must set the tone; your executives must be leading the dialogue and controlling the message

5. Plan - Planning is an essential requisite for success; develop a plan that is based on a thorough assessment and contains key performance indicators (KPIs)
6. Governance – very tool needs an owner and a policy (terms of use)
7. Technology - choose your vendors carefully based on business requirements & needs
8. Refresh – keep your content and tools relevant and fresh, and ensure they cross-promote your latest products and services
9. Measure - Document the link between social media and the business and develop a set of performance metrics with baselines that are regularly measured
10. Engage – gather constant feedback and act quickly on necessary changes

Finally, consider an Intranet 2.0 undertaking as “evolution not revolution” – there’s no need to solve the world on your first attempt; test and pilot solutions and enhance as necessary before trying to conquer the world.

For the latest case studies and trends in Intranet 2.0, please visit: <http://intranetblog.blogware.com/blog/Intranet20>

ENTERPRISE INFORMATION PORTALS

A portal is a door or gateway of importance. Your custom-built or content management driven intranet home page may be a portal. However, the enterprise portal solution (sometimes referred to as the Enterprise Information Portal (EIP)) is a multifaceted piece of software that has some distinguishing features from an average intranet home page. The enterprise intranet portal solution has three distinguishing characteristics:

- advanced user personalization capabilities;
- security (authorization and authentication); and,
- enterprise application integration (EAI, the software and processes that link together or integrate an organizations many applications (e.g. ERP, CRM, HR applications)).

Silver bullets that solve all your problems are rare in life; and nearly non-existent in the intranet world. Far from being a silver bullet, enterprise intranet portals are extraordinarily and exceedingly powerful, but are also complex, pricey and pose many, many challenges for large organizations.

There are few enterprise applications that, when implemented properly are more complex than the enterprise intranet portal. Enterprise resource planning (ERP), business intelligence (BI), and customer relationship management (CRM) are all complex and costly endeavors, but the optimal enterprise intranet portal (EIP) has a bigger scale and scope that involves and engages all employees and can (should) include composite application integration of all of the above.

While many organizations are hoping for a 'silver bullet' solution to their intranet challenges, patience and caution is advised. Hundreds of intranet portal solutions proliferate the market with few leaders and few (if any) products capable of delivering the appropriate solution for all of an organization's requirements. *Caveat emptor* warns the Gartner Group, "extreme due diligence should be performed before buying a portal product."

PORTAL APPLICATIONS

Now, if those concepts are not complex enough to understand for non-techies, the typical EIP delivers a lot more bells and whistles than the above distinguishing characteristics. Some solutions like the powerful Oracle Portal or IBM WebSphere Portal come with hundreds of portlets, many, many bundled applications, and a bevy of plug-in suites and additional solutions with some big and complex tools unto their own including:

- Search
- Content management
- Document management
- Records management
- Digital asset management
- Business process management

- Web 2.0 tools (blogs, wikis, etc.)
- Collaboration suites (e.g. team pages)
- Analytics and reporting
- Development platforms, toolkits and ‘factories’

Although the EIP solution may sound ideal, rarely does a ‘silver bullet’ solution exist. These and other powerful enterprise portal products from Sun, Vignette, SAP, and the ubiquitous Microsoft SharePoint (MOSS 2007), have massive horse-power capable of solving complicated business requirements. The catch: it comes at a price, and an opportunity cost.

For starters, most of the above functionality, often referred to as utility applications, are ‘thin’ versions of stand-alone products. The robustness

The Plumtree-powered corporate portal at Ford, my.ford.com, is expected to deliver significant savings on many fronts by organizing “scattered intranet sites into a framework that everybody can use, anywhere, and broadens the audience for applications previously limited to specialists...” For example, Ford estimates that online training delivered via the portal will drive down training costs to an average of \$.21 per class, down from \$300-\$2,500 per class –producing millions in annual savings.

(Source: Plumtree Software, “The Plumtree Corporate Portal at Ford Motor Company)

of most portal search engines and content management systems (CMS), for example, are far less than the individual versions. Often, many organizations don’t use the search engines that come with a portal, they plug in Google, Autonomy or Endeca which are almost always far more powerful than their portal brethren.

PORTAL AND CMS

In addition to offering bundled applications like those listed above, many of the portal vendors sell separate content management systems – and vice versa. A traditional CMS vendor, Vignette has also become a leading portal vendor. CMS vendors Day, Interwoven (now part of Autonomy), and others also have portals.

While the CMS vendors roll-out portal products, the portal vendors now sell content management

systems – not only included in the portal solution, but also as separate products. Oracle not only has a portal product, Oracle Portal, but a 2nd portal product called WebCenter (which integrated components of a former portal solution from BEA, called AquaLogic), and it sells two different CMS packages including the CMS formerly known as Stellent. IBM Websphere Portal has different CMS options, but also recently bought and now sells FileNet which has separate CMS and document management products. To complicate things further, FileNet OEMs the Day content management system, and IBM and Interwoven have a long

standing partnership that allows for easy integration of the TeamSite CMS into WebSphere portal (Interwoven is now owned by Autonomy). It is indeed a confusing marketplace.

“The distinction between portal and CMS is not that meaningful... users shouldn’t have to buy separate products,” says portal analyst Matthew Brown of Forrester Research. “If I’m a user, I should be able to construct a page and I should be able to run static content or incorporate a portlet or gadget. There is so much that overlaps between the two.”

But there’s a good reason to have separate stand-alone products – for some organizations – while others require an integrated solution. “Portals and CMSs still peacefully coexist,” adds Brown, who intimates the need for separate products, all the while having the option for integrated solutions. It all depends on the requirements of the buyer.

Microsoft is leading the challenge for a single, integrated solution. No longer does MS offer a separate CMS and portal product, the new SharePoint Server 2007 combines the two.

Driving the growth in the EIP market is the hunt for ROI. While a portal solution can deliver many benefits, Prescient Digital Media categories portal ROI into into seven principal areas:

1. Competitive/market advantage
2. Increased employee productivity
3. Increased effectiveness
4. Decreased cost of information
5. Increased collaboration
6. Universal access to enterprise resources
7. Unified, dynamic view of enterprise data and information

If properly executed, the benefits of an EIP are many. From a user perspective, it provides more intuitive and personalized, single source access to corporate information and tools, thereby creating a more relevant and productive user experience. For IT, the portal provides a single view of an organization’s platforms and systems with built-in integration tools that make their jobs easier. However, Prescient warns that there are two principal challenges that are not easily overcome:

ROI PORTAL EXAMPLE

“WebSphere Portal and Portlet Factory are helping us compete by reducing the cost of delivering value-added services both to clients and a dispersed workforce.

Personalized portal views and dashboards have improved collaboration with clients, increased our productivity and contributed to an outstanding satisfaction rate. An accounts payable application developed for our portal alone has saved UNICCO nearly \$140,000 in 2006 by eliminating paper invoice searches,” said William Jenkins, senior director of information technology for UNICCO Service

(Source: IBM)

1. Ensuring organizational processes sync with the portal functionality (or vice versa)
2. Integrating multiple technologies into a portal can be extremely complex, time-consuming, and expensive

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(Source: Plumtree Software, “The Plumtree Corporate Portal at Ford Motor Company)

To protect and extend its leadership position in a highly volatile market, Plumtree (now a part of Oracle by way of BEA) was quite aggressive in measuring and touting the ROI potential of implementing a portal solution. In its paper entitled, “A Framework For Assessing the Return on Investment Potential for a Corporate Portal Deployment,” Plumtree estimated the possible one-year ROI of a full portal deployment at a hypothetical 5,000-person company at US\$3.2 million (under ideal circumstances). However, Plumtree is realistic in their approach and cautions that “quantifying costs and benefits is a necessary exercise, but not a science. Because our example was so generic, this number itself is not meaningful, but the process for calculating that number is. A host of variables in each business will produce different results.”

For more on portal solutions and EIP, please visit: <http://intranetblog.blogware.com/blog/Portal>

KNOWLEDGE MANAGEMENT (KM)

Companies experience a variety of challenges in managing and recouping the benefits from the knowledge of their employees.

Individuals throughout the organization are acquiring and creating enormous volumes of valuable information in the marketplace, the company, and best practices in the course of their work every day. Little of this vital information is being converted into an organizational knowledge asset, used for training and reference, or leveraged to increase the organizational value and improve the execution of its business strategy.

Middle managers spend more than a quarter of their time searching for information necessary to their jobs, and when they do find it, it is often wrong, according to results of an Accenture study (“Managers Say the Majority of Information Obtained for Their Work Is Useless”, January 2007).

The proliferation of different information sources within organizations was revealed by the survey as the most important reason why managing information is proving difficult.

Among the key findings:

- **WASTED TIME:**
 - Managers spend up to two hours a day searching for information
 - 42% said they accidentally use the wrong information at least once a week
 - 57% of respondents said that having to go to numerous sources to compile information is a difficult aspect of managing information for their jobs
- **NO VALUE:**
 - More than 50% of the information managers obtain has no value to them
 - 53% said that less than half of the information they receive is valuable
- **POOR MANAGEMENT:**
 - Only half of all managers believe their companies do a good

GLOSSARY

KNOWLEDGE MANAGEMENT (KM) is the way and means that organizations create, store and access (reuse) knowledge to accomplish enterprise goals.

KM requires:

- Organizational processes and rules (taxonomy)
- Innovative and participatory individuals
- The appropriate technology to support knowledge sharing

- job in governing information distribution or have established adequate processes
- 59% said that as a consequence of poor information distribution, they miss information that might be valuable to their jobs almost every day

Effective KM should help a company or organization do one or more of the following:

1. Foster innovation by encouraging the free flow of ideas
2. Improve customer service by improving customer response time
3. Boost revenues by getting products and services to market faster
4. Enhance employee retention rates by recognizing and rewarding employees who share knowledge
5. Streamline operations and reduce costs by eliminating redundant or unnecessary processes

ServiceWare is a leading provider of Web-based knowledge management solutions for customer service and support.

ServiceWare estimates that an average call center of 110 agents could reduce costs by US\$2 million over a three year period – representing a 20% cost savings – using the company’s web-based KM system to help improve customer service.

(Source: The Insider’s Guide To Knowledge Management, Tom Tobin, January 2003)

Although it is difficult to measure exactly, there is a significant cost associated with interrupting peers and taking them away from productive work. Studies of help desk operations report it costs about \$15 - \$20 on average to provide help and guidance by telephone, and about \$5 to do it by email.

Informal learning conducted person-to-person will continue to be a key role in an organization. However, many organizations are striving to reduce this person-to-person reliance by 25% or more through online support.

The need to sell the KM concept to employees can be a challenge. After all, in many cases employees are being asked to surrender their knowledge and experience – the very traits that make them valuable as individuals.

The best KM efforts are as transparent to employees’ workflow as possible. Ideally, participating in a KM program should be its own reward. If KM doesn’t make life easier for employees, it will fail.

While technology can support KM, it’s not the starting point for a successful KM program. KM decisions and programs must be based on people (employees), and grounded in the knowledge they hold for achieving business objectives. The ‘how’ (technology) should only be used to support a knowledge management program, not drive it.

BENCHMARK:

Ameriking is the largest owner-operator of Burger King restaurants in the United States. Always seeking to foster innovation and continually look for ways to improve performance, Ameriking implemented the Plumtree corporate portal to connect 250 core managers in 12 states – and is being extended to all 376 restaurants in the chain.



In the Ameriking portal, Akinet, management are provided with a forum to share ideas and experience for the purpose of identifying a set of internal best practices.

According to independent research firm Delphi Group, Ameriking's US\$411,000 portal investment could return a value of 355 percent over three years (or \$1,025,000).

Delphi categorizes the benefits derived from the portal into four major areas:

Improved information access: \$783,750

- Over 70,000 documents are now available to field management saving support staff 60 minutes per week by using the portal

Decreased print & distribution costs: \$343,759

- 80% of previously printed accounting reports are now available in AKinet saving \$20k per month

Centralized purchasing savings: \$317,760

- Greater volume discounts result from aggregated purchases; Automated accounting processes increase savings

Decreased communication costs: \$64,800

- Field managers no longer place 3 calls to process new employee forms
- 30% reduction in field staff phone and fax expenses

Source: A Delphi Group White Paper, Ameriking's Akinet, March 2002

KNOWLEDGE MANAGEMENT– PR FIRM EXAMPLE

Ketchum, one of the world's largest public relations firms, offers professional services across six practices areas through 1,500 employees in 23 offices around the world.

A Meta Group White Paper describes myKGN (my Ketchum Global Network), as a next-generation intranet and extranet- shared by employees, partners and clients worldwide.

To improve teamwork and sharing, Ketchum developed secure eRooms, to help teams work together on projects to ensure the creation of timely, trusted content. Rather than trading document revisions in an endless email loop, users now review and revise documents in real time.

Before myKGN, most employees would labor for several hours attempting to locate expertise. Now, the average is 30 minutes. This helps Ketchum Account Reps in preparing complex RFPs and increases their chance of winning business.

This Knowledge Management focus extends further by providing Ketchum Account Reps with:

- News wire subscriptions to keep account reps up-to-date on client activities.
- A document library enabling employees to perform full-text searches ranging from new business pitches, to past client deliverables, to press releases.

CASE STUDY:

Halliburton is one of the world's largest providers of products and services to the oil and gas industries and winner of the 2003 Extended Enterprise Innovator Award for developing an extensive collaborative portal that relies on integrated ERP functions to serve customers, suppliers and employees.

In its first year, the portal influenced \$120 million in sales, according to customer surveys; improved corporate efficiencies to the tune of about \$500,000 by enabling better access to technical documents; and led to reduced payment cycles.

(Source: Beth Schultz,
Network World,
February 17, 2003)

KNOWLEDGE MANAGEMENT- LAW FIRM EXAMPLE

When Pittsburgh law firm Eckert Seamans Cherin & Mellott wanted to go national without opening any additional offices, the 44-year-old firm's executives needed two things: a network of partners and a network connecting them. The firm was planning to serve as a national co-coordinator for thousands of product-liability claims against a major client. But new ideas were needed when it was deemed impossible to set up a physical presence in 50 states, Puerto Rico and the Virgin Islands.

Dozens of local law firms were recruited to act as 'local counsel' on behalf of Eckert Seamans to handle claims in their own states. The network connecting them all is the Eckert Seamans extranet, which contains all related documents, including briefs, transcripts, interviews, research, medical and scientific information, and correspondence.

This provides clients with a consistent nationwide defense by making sure that all the lawyers are literally on the same page. In addition, it saves time and money by providing those geographically dispersed partners with research to strengthen the cases in their states. And the extranet lets the firm's 215 lawyers co-ordinate cases like never before.

The system didn't come cheap. It is estimated that Eckert Seamans has invested US \$1.3 million so far, including construction costs to create a separate technology centre.

Eckert Seamans is concerned about security breaches – and not just from hackers. The firm must protect against possible security breaches involving the very partners for whom it established the intranet – those local-counsel firms. They are working together for now, but they are still competitors relying on a combination of firewalls, multiple passwords, and encryption to make sure those faraway lawyers get access only to the appropriate cases and only for the length of their contracts.

BENCHMARK:

Software producer Hyperion built an extensive intranet called GlobalSource in 1996. But by 2002, the company was primed to create an enterprise portal specifically for Hyperion's sales and marketing staff.

As traveling sales people have limited time in their hotel rooms at night, it was important to spare them the hassles of switching from database to database, application to application. The new portal called My Global Source, was put together with multiple portal vendors.

Currently, 2,000 Hyperion employees use the enterprise portal, and the company is in the process of adding a version for outside distributors. And that opens new issues – primarily security-related.

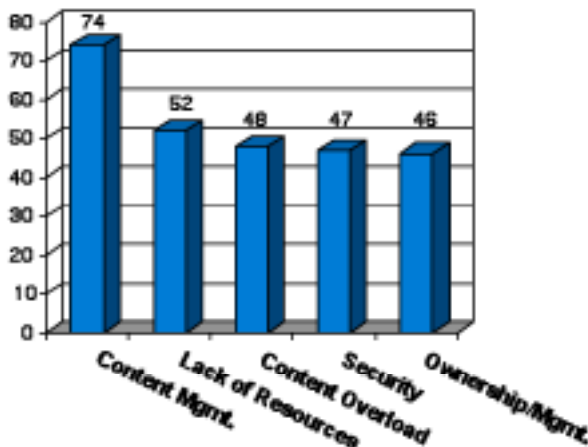
(Source: Darwin Magazine, Executive Guides, Knowledge Management www.darwinmag.com, 2003)

WEB CONTENT MANAGEMENT (WCM)

At the risk of oversimplifying, content management is the process by which content is created, managed, and published to your website or portal. Specifically, advanced content management uses a technology solution (software) to simplify and speed the web content publishing and management process.

In the beginning, all HTML and web content was hard-coded by a techie. Today, content owners who don't know a single line of code skillfully publish live to the intranet, in minutes. Publishing that once took hours, can take seconds with the right rules and templates.

Not surprisingly, an intranet study published by Melcrum Research showed that the number one issue facing intranet managers is content management. The number three issue was content overload.



(Source: "Survey data: Management of the intranet and issues companies face" – Melcrum Research Report, *Managing and Developing Intranets for Business Value*.)

Of course, one of the biggest drivers behind content management is the push for efficiency and cost savings. Specific drivers and principles of content management include:

GLOSSARY:

WEB CONTENT MANAGEMENT (WCM) is sometimes referred to as a subset of KM. WCM is the process by which content is created, managed, and published to your website or portal.

Advanced content management uses a technology solution (software) to simplify and speed the web content publishing and management process.

Sales of web content management software was estimated to reach nearly US\$1 billion by 2010, and will grow at an annual rate of 15% through 2012 (representing 25% of the total ECM market).

- Create and publish content in a timely manner
- Organize content to support work processes
- Delineate roles and responsibilities for managing content
- Develop policies to guide content processes
- Create personalized ‘workspaces’
- Use one tool to publish information across different sites
- Reduce site creation, maintenance, and deployment costs
- Reduce the cost of publishing content

The last point, ‘reduce the cost’, is perhaps the most important driver, and certainly the most saleable one if you’re attempting to justify an investment in an expensive content management solution.

CASE STUDY:

MERANT has calculated the estimated savings of implementing its CMS tool, called PVCS Content Manager, at a typical 2,500-person company. Factoring in estimates for content creation (headcount), maintenance, deployment (publishing), and enhancement costs, MERANT estimates the annual savings at US\$2.1 million.

MERANT is quick to point out, however, that in addition to the traditional hard cost savings there are “numerous” soft benefits, which are more difficult to measure for ROI, but perhaps more valuable in the long run.

(Source: MERANT, “Assessing ROI for Content Management Systems”, 2001)

Content management ROI benefits include:

- Print/paper savings
- Mail/delivery savings
- Publishing time savings
- Employee productivity savings
- Reduced IT reliance
- Reduced meetings/sign-off/preparation
- Reduced site development/maintenance

There are scores of content management system (CMS) vendors from the Cadillac vendors such as Interwoven (Autonomy), Vignette, and Oracle, to more reasonably priced solutions from Red Dot and The Level.

Prescient Digital Media worked with one CMS vendor, Anzer IT (formerly TiCORP) to analyze and estimate the potential ROI value of implementing its PowerCentral content management platform in a typical work environment. To understand the cost breakdown of publishing online, a typical scenario of publishing five static HTML pages is documented with cost estimates below.

Under the traditional publishing model, assuming an average content/communications manager costs approximately \$45 per hour (\$50,000 per year, with \$25,000 in support/administrative costs), and a technical manager costs approximately \$69 per hour (\$65,000 per year, with \$32,500 in support/administrative costs), the average cost to publish five pages will cost approximately \$500 (required time multiplied by hourly costs).

Traditional HTML publishing often requires a technical programmer to hard-code each HTML page by scratch – often at a rate of one hour per HTML page. By empowering content owners to publish and manage their own content, many organizations are removing or retasking expensive technical support and programming from the process – saving tens-of-thousands of dollars per year, or possibly more.

Time/Cost Required by Content/Communications Manager –
TRADITIONAL PUBLISHING:

TRADITIONAL PUBLISHING	TIME (min)	COST (\$) (\$45/hr)
Preparation/instructions	30	22.50
Meetings/discussion	20	15.00
Review changes	20	15.00
Alterations and ensuing discussion	10	7.50
Review changes and approve	10	7.50
Ensure successful upload	10	7.50
<i>TOTAL TIME/COST</i>	<i>100</i>	<i>\$75</i>

Time/Cost Required by Content/Communications Manager –
CONTENT MANAGEMENT PUBLISHING:

CMS PUBLISHING*	TIME (min)	COST (\$) (\$45/hr)
Application open and log-in	5	3.75
Copy, paste and format text	5	3.75
Review and edit	5	3.75
Approve and post live	5	3.75
Ensure successful upload	5	3.75
<i>TOTAL TIME/COST</i>	<i>25</i>	<i>\$18.75</i>

*Using the TiCORP PowerCentral product, requiring no technical support

Time/Cost Required by Programmer/Technical Manager
TRADITIONAL PUBLISHING:

TRADITIONAL PUBLISHING	TIME (min)	COST (\$) (\$65/hr)
Meetings/discussion	30	32.50
Program content (1 hour per page)	300	325.00
Additional revisions	50	54.17
Upload to site	15	16.25
Ensure successful upload	10	10.83
<i>TOTAL TIME/COST</i>	<i>405</i>	<i>\$438.75</i>

Time/Cost Required by Programmer/Technical Manager
CONTENT MANAGEMENT PUBLISHING:

CMS PUBLISHING*	TIME (min)	COST (\$) (\$65/hr)
Application open and log-in	0	0
Copy, paste and format text	0	0
Review and edit	0	0
Approve and post live	0	0
Ensure successful upload	0	0
<i>TOTAL TIME/COST</i>	<i>0</i>	<i>\$0</i>

*Using the TiCORP PowerCentral product, requiring no technical support

Using the PowerCentral CMS, the time required to publish five pages of static content drops dramatically – the programmer/ technical manager is eliminated from the process as the content manager can now publish directly to the site. As a result, the cost of publishing five pages drops from approximately \$500 to approximately \$19 – an impressive savings of 96%.

If the same estimates hold true for the standard CMS (not necessarily the case), a \$100,000 content management solution (costs vary depending on the solution) would realize a 100% ROI after approximately 1000 pages, or 20 weeks in an organization that publishes 10 pages per business day.

It goes without saying that there are many other factors that would affect the ROI (for example, rarely would it take 5 minutes to cut and paste copy into a simple template – seconds would suffice) – from training costs to support costs (either could increase or decrease). Nonetheless, the above example and accompanying tables provide a quick snapshot of the potential value an effective CMS can deliver if planned and implemented properly.

CASE STUDY:

Before implementing its CMS, investment bank Credit Suisse First Boston (CSFB) had five methods of publishing content to distribution servers and three methods for intranet applications. Using a customized version of Interwoven's OpenDeploy, CSFB reduced network utilization costs 88% in one year. CSFB uses the CMS to publish press releases, research reports, white papers and other materials to multiple servers on different platforms.

(Source: Eugene Grygo, InfoWorld)

For more on WCM, ECM, and CMS solutions, visit: <http://intranetblog.blogware.com/blog/ContentManagementCMS>

HUMAN RESOURCES

Thoughtful implementation of HR self-service/portal solutions can lead to hard-dollar cost savings and soft, employee productivity savings.

A comprehensive ROI study that also incorporates the ability to turn soft benefits into tangible savings may capture management's commitment to a HR self-service/portal implementation because these services can lead to an actual increase in the bottom line, not just cost savings.

Organizational Diagnostics is a management-consulting firm in California specializing in research in high-tech Silicon Valley companies. Over the past decade, it has conducted research on the effect of employee satisfaction on employee retention.

They conclude that for every 2% increase in employee satisfaction, there is a 1% increase in employee retention. Put another way, to the extent that you satisfy your staff with the resources and services they need, you can reduce employee replacement costs. (The ABCs of Return on Investment, PeopleSoft White Paper, June 2001)

As well, as employees stay on longer, their productivity rises and training costs fall. The combination of a higher employee job satisfaction rating, along with improved knowledge and experience, leads to better customer service.

By early 2000, Mitre Corp. had realized US\$16.6million in hard cost savings since deploying its intranet in 1996. Savings include: US\$5.6 million in HR and administration, US\$2.9 million in IS management, US\$3.6 million in financial operations, US\$2 million in technical operations and US\$2.6 million in miscellaneous savings. In total, a US\$7.2 million intranet investment has returned US\$62.1 million in reduced operating costs and improved productivity.

(Source: Debby Young, CIO Web Business Magazine, May 1, 2000)

CASE STUDY:

In January 2001, PeopleSoft began to deploy its own software, PeopleSoft 8 Human Resources Management, for HR, benefits administration, payroll, job postings and other self-service tools for 10,000 users in 26 countries. With self-service tools requiring no phone calls, fax or mail to complete tasks, employees are more productive and red-tape paper trails have virtually been eliminated. Projected over a 5-year period, PeopleSoft hopes to realize an ROI of 415%, or more than US\$8 million, with the initial investment being recouped within 1.5 years.

(Source: PeopleSoft, "The ABCs of Return on Investment," June 2001)

The results show that employees who were highly satisfied with their intranet or corporate portal also had a high level of job satisfaction. Conversely, those who were very dissatisfied with their intranet or corporate portals were much more likely to be dissatisfied with their jobs. Other research has shown that effective internal communications – often the responsibility of HR – is a driver of job satisfaction. Since the portal functions as an online communications tool, it naturally flows that a significant correlation between the effective portal and higher job satisfaction would exist.

An Atlanta IT-consulting firm considers it critical to build long-term commitments with both employees and customers. To help measure the performance of the organization, Extreme Logic encourages both employees and customers to take the annual employee survey on the combined intranet-extranet.

This system has not directly affected revenues, which topped \$30 million last year. But it has impacted the company's own showing in two top-priority areas: retaining star performers and nurturing all employees. When workers leave – whether they're hired away by competitors or fired for poor performance – the company spends as much as three times an employee's annual salary to find and train a replacement. Getting quick online feedback directly from customers lets Extreme Logic reward its stars and provide specific improvement goals for everyone else.

The approach seems to work. Mike Williams, who oversees human resources, told Inc, The Magazine for Growing Companies, that the company's turnover rate is 5% to 10% lower than the IT industry standard. In addition, according to an internal study, since the company added the performance-evaluation feature to its intranet 18 months ago, about 80% of its employees and managers feel that they were working toward the same goals, compared with 52% before the new intranet.

INTRANET – STAFFING AGENCY EXAMPLE

For TemPositions, making connections quickly is what counts. The company, one of 350 temporary-staffing agencies in New York City, has begun bidding against the big boys – including \$4.1-billion Kelly Services – for major contracts. To compete against the industry giants, TemPositions focuses on what CEO and President James Essey calls its core strength: delivering the perfect worker faster. And to do that, TemPositions relies on an intranet that, much like a dating service, instantly matches customer requests with the best available contract employees.

If, for instance, a client company needs a registered nurse with pediatric experience, the TemPositions intranet automatically emails the job offer to the best-qualified candidates. The system excludes temps who are already on assignments or unavailable because of vacation or illness. When contractors accept contracts, the intranet automatically emails them

CASE STUDY:

TransAlta Energy and its subsidiaries are in the business of electric and thermal energy supply, energy marketing and energy services in Canada, the United States, Mexico and Australia.

A research firm called Gartner Consulting, reported that TransAlta Corp. achieved a 102 per cent rate of return by implementing SAP's human resources module.

The study showed TransAlta would achieve a 10-year savings of \$31-million. Gartner calculated the ROI by evaluating explicit cost-savings or revenue-enhancing benefits associated with related business processes such as time management and organizational management.

(Source: Computing Canada, Volume 29, Issue 11, June 6, 2003, www.itbusiness.ca)

a link to their own personal job bank site, where they find assignment sheets with dates, prices, a map, and supervisor contact information. When temps reject offers or don't respond, the intranet solicits the next person in line. Corporate customers can even make their own temp requests online.

Essey told Inc (www.inc.com) the do-it-yourself convenience "cements us to the customer in a big way because once they get into the system and see all the information there, they're less likely to go to a competitor."

That's a far cry from the traditional temp-placement process, which typically requires hours of telephone tag. (Customers call the agency with a personnel request, and then agency employees dig through paper files, call candidates, and wait for return calls.) The streamlined process, in turn, has allowed the 40-year-old company to go after large, long-term contracts it couldn't even have considered before. At the time, TemPositions was competing for a contract to supply New York City schools with more than 1,000 temps in a variety of fields, including curriculum, course development and counseling. "We couldn't bid on it if we didn't have these tools," said Essey. "We'd need enough employees to fill a football-field-size call center."

TemPositions, which had about \$30 million in revenues in 2001, spent \$250,000 building its intranet in 1998, primarily on Web design and for the salaries of a chief information officer, a programmer, and a technology troubleshooter. Essey expects the intranet to reduce the company's head count – eliminating, for instance, the need for data-entry staffers. Essey said those savings are well worth the investment.

EXTRANET – HEALTH INDUSTRY EXAMPLE

Speed was the issue at Eminent Research Systems, in Minneapolis, where clogged procedural arteries were stunting the company's growth. The \$7 million, 22-employee company specializes in coordinating trials for heart and blood vessel devices such as stents. However, Eminent products typically have a market lifespan of only 18 months before being replaced by newer models.

According to Inc's Special Technology Report: Inside Story, Eminent used to send 150 to 500-page study-protocol documents to participating physicians and regulators, who marked them up and mailed them back. Sometimes the hefty hard copies made several round trips before everybody agreed on protocols – a process that typically took at least two months. The lengthy procedure caused some customers to forgo putting their devices on the market altogether, which meant less work for Eminent.

“Turnaround time is key,” said Linda Laak, vice-president and chief operating officer. “Our competition is not necessarily another company but whether or not the client will do the study at all.”

That changed in February 2001, when Eminent launched an extranet that allows doctors nationwide to collaborate on protocols electronically. The system sliced the approval process from two months to two weeks. Meanwhile, although Eminent spent \$50,000 to launch its private Web site, Laak estimates that the company saves 10 times that amount by eliminating the 'heavy lifting' of shipping, storage, and paying the salaries of two administrative people who handled all the documents. And the company can handle 10 times as many projects as before, resulting in a 40% increase in revenues

CASE STUDY:

Eminent Research Systems launched an extranet that allows doctors nationwide to collaborate on protocols electronically. The system sliced the approval process from two months to two weeks. The initial \$50,000 launch price has saved an estimated “10 times that amount by eliminating the “heavy lifting” of shipping, storage, and paying the salaries of two administrative people who handled all the documents.”

(Source: Jill Hecht Maxwell, Special Technology Report: Inside Story, www.Inc.com, April 2002)

PROCUREMENT

With the break-neck pace and changes in today's ultra competitive economy, many organizations are looking at every possible means to reduce costs and improve organizational efficiency. Some consider e-procurement to be the 'holy grail' for delivering operational efficiencies.

Today, most organizations still rely on traditional purchasing that involves complex and confusing paper-based systems requiring many 'paper pushing' employees dedicated solely to processing dozens of forms and some custom electronic applications. Processing a wide variety of paper, sometimes in combination with electronic order forms, is costly, time-consuming, prone to manual data-entry errors, and is often difficult or impossible to integrate with order delivery and payment.

Electronic procurement or e-procurement automates the costly and inefficient traditional means of purchasing products and services such as office supplies and computer equipment. E-procurement allows employees to purchase directly from their desktops from pre-determined and preferred suppliers while ensuring compliance with corporate rules and trading agreements.

CASE STUDY:

Microsoft's intranet-based e-procurement application, MS Market, allows employees to place orders for work-related products and services directly from their desktops. Products and services include business cards, office supplies, computer hardware, travel services, business shipping, catering, and vendor contracts. Integrating with SAP R/3, (MS's ERP), MS Market streamlines order processing, facilitates billing, and reduces administrative overhead.

MS Market manages more than 400,000 orders per year, at a total value of over US\$5 billion, and has reduced processing costs from US\$60 to \$5 per order—saving Microsoft US\$7.3 million per year. Since its implementation, 17 of the 19 people dedicated to processing purchasing orders have been re-allocated to more productive jobs.

(Source: Microsoft.com, 2000)

Prior to introducing an e-procurement system, Microsoft was inundated with thousands of high-volume, low-cost purchase transactions – representing 70% of Microsoft's procurement. Today, Microsoft is able to purchase and arrange the delivery of products and services at record speed, requiring fewer people and producing savings of more than 90% compared to purchasing prior to implementing e-procurement.

“Traditional purchasing is tremendously inefficient and costly,” said Tim Minahan, an e-commerce analyst at the Aberdeen Group, in a Fortune magazine interview. “Most user organizations that we surveyed were able to realize more than a 300% return on investment in Internet procurement automation within the first year of deployment.”

Even purchasing and credit card companies like Visa have begun linking with software providers to create a back-end infrastructure for e-procurement facilitation and payment.

The bottom line: e-procurement allows organizations to find significant efficiencies and savings from all operating areas and deliver those savings directly to their bottom line.

Some of the many e-procurement benefits versus traditional purchasing include:

1. Increased control over purchasing process
2. Speeding-up the purchasing process
3. Reduced inventory requirements (just-in-time inventory)
4. Reduced working capital budget
5. Increased collaboration reduces supplier bargaining time
6. Reduced invoice processing, distribution and printing costs
7. Open standard approach reduces costly reliance on proprietary standards
8. Enhanced catalog searching and distribution
9. Real-time workflow and management approval
10. Reduced processing errors and associated costs
11. Outsourced model (Application Service Provider) eliminates capital costs
12. Increased collaboration and information sharing for sales cycle (sharing sales forecasts, inventory levels, promotions, client scheduling, etc.)
13. Wider marketing reach via Internet than EDI or catalogs
14. Application development is less complex and costly than EDI

Canadian-based retailer Hudson Bay Co. is now purchasing 95% of its merchandise inventory online for its 500 retail stores representing over 70,000 employees.

By moving to an e-procurement based system, Hudson Bay has reduced its purchasing staff, increased control over buying, speeded-up the buying cycle, reduced its inventory requirements by “four or five days” and reduced its invoicing related to its restaurants alone by 70%.

(Source: Ideas Magazine, “Point, click, buy,” Issue Two, 2001)

CASE STUDY:

British Telecom (BT), one of the largest telcos on the planet, is also one of the biggest corporate buyers in Europe – procuring US\$8.8 billion in goods and services each year. BT has been transforming itself into a web-enabled, e-business for some time. Launched in the mid-1990s, BT's intranet has delivered an audited ROI of over 1000%. E-procurement has also delivered to the company's bottom line and unearthed cost and efficiency savings in its drive to become increasingly competitive in a hyper competitive market.

While it currently makes 1.3 million purchasing transactions of indirect goods each year, BT plans to purchase 95% of all its goods – including desktop computing, stationery, clothing, travel and agency staff – using e-procurement by early 2001. BT has already reduced the average purchasing transaction cost from US\$113 per transaction to \$80 per transaction, and hopes to further lower that cost to US\$8 per transaction.

(Source: Fortune, E-procurement:
The Transformation of Corporate Purchasing, 2000)

HIGH-VALUE WEB APPLICATIONS

While significant ROI can be garnered from reducing publishing costs, web-enabling human resource functions and e-procurement, more and more innovative business functions are migrating to the intranet in the form of web applications – ringing up impressive return on investment value.

In addition to some already mentioned, other popular applications found on leading intranets today include:

- Expense reporting
- E-learning (online training)
- Webcasting (streaming audio and video)
- Online travel tools (reservations, maps)
- Wireless intranet access
- Web sales tools (demos, brochures, tracking)
- Discussion groups and ichtat
- Online classifieds (buy and sell)

A recent META Group study measured quantifiable benefits in a number of areas including information distribution, development simplification, reduction of infrastructure costs, process improvement, development of supply chain connections, and new business revenue. However, the study concludes that the highest ROI came from mission-critical applications supporting specific business units.

CASE STUDY:

One of the more popular and successful intranet applications at Cisco Systems is the METRO expense reporting application. All Cisco employees must submit their personal business expenses via the intranet – which has not only saved the company millions, but also reduced the waiting time for employee reimbursement.

METRO reduced the cost of processing employee expense reports (compared to the traditional paper system) from US\$50.69 in 1996 to \$1.90 in 1999 – a whopping 96% reduction.

Total METRO savings in 1999 totaled US\$77 million. At the same time, the time required for processing each expense report dropped from an average of 21 days to only 4 days.

(Source: Cisco Systems)

ROI STUDY:

A recent META Group Study found that applications deployed on an intranet are most critical and that leading intranet companies achieve the highest ROI with applications supporting mission-critical, value-added line-of-business functions (for both internal users and external supply chain partners). META found the highest average ROI for the following applications:

Application	ROI
Publishing	27%
Order Management	39%
Collaboration	40%
Commerce	44%
Customer Service	47%
Inventory Management	53%
Database Access	68%

(Source: META Group Study, Microsoft.com)

EMPHASIS ON PLANNING

As demonstrated in the previous sections, and throughout the case studies documented herein, there are many components to a successful intranet. The rigor and execution required to build and maintain a successful intranet is massive – from governance to content management, and from technology to business processes. At the heart of a successful intranet is the strength of the plan upon which it rests.

Failure to develop an integrated plan that accounts for an organization's structure, stakeholder, and user requirements will almost certainly ensure failure and, with it, a loss of significant time, money and jobs.

An intranet manager at a major communications company recently lamented the phenomenal amount of time, money and effort exhausted in evolving their enterprise intranet portal that serves tens of thousands of employees. In one year, the intranet was redesigned three times – sucking significant funds and patience from an organization that should be using the intranet to support rather than drain the bottom-line. Of an extended team of more than a dozen people working on the intranet, only one person remains.

Prior to building its corporate portal, the Region of Peel in Southern Ontario undertook an assessment and planning process that aligned the project with the Region's strategic and corporate priorities.

The process then included meetings with employees, employee surveys and focus groups, internal content reviews for each department, the development of a content management strategy, and training for a large network of content publishers.

(Source: Region of Peel)

In spring 1996, Williams and Wilkins agreed on the need to hire a non-partisan third-party to assess their internal online environment.

Before proceeding with any planning or build, a third-party vendor conducted an assessment that included the study of current processes, and interviews with employees at all levels during a six-week period.

(Source: CIO Magazine, March 1998)

The problem here and in many cases was that executive whims shaped the intranet instead of research and requirements. Other threats include management seizing control, especially where managers of various departments vie for profile and editorial power, and intranet design and redesigns based on a myriad of product demos and vendor presentations.

“Too many intranets and portals fail or don't live up to their potential because they lack direction and often become a political football torn between rival groups and competing priorities within an organization,” says Carmine Porco, Vice-President, [Prescient Digital Media](#), a veteran consultant who has also

worked for Cisco and Deloitte Consulting. “First, you have to get your stakeholders to agree, in the form of a strategic plan and vision, on how the intranet should work and evolve. But you also need to understand what employees want and expect; and then marry the two.”

Before undertaking any intranet plan or build, an extensive needs or business requirements assessment is necessary to identify, develop, prioritize, and document goals and current practices. The assessment should include stakeholder interviews and input, as well as user research, and possibly stakeholder workshops. Armed with the acquired data and knowledge, a detailed strategic blueprint, information architecture, technology, and ROI plans – can be crafted to build a leading-edge intranet portal.

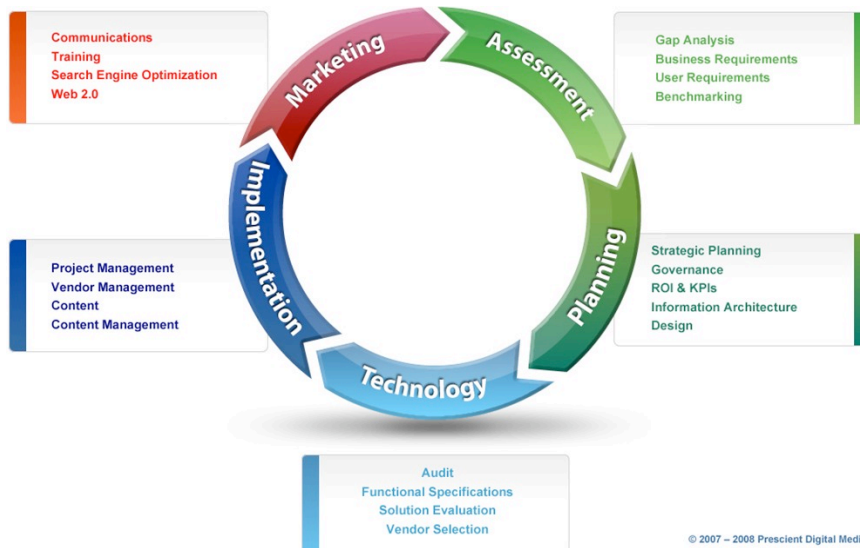
The assessment serves two important needs: it documents the needs and requirements of the user population, for the purpose of answering those needs; and it addresses the politics of intranet ownership and governance by engaging everyone who has a business stake in the intranet. In the majority of organizations, technology is not the biggest intranet challenge. The biggest challenge is politics – specifically, the political challenge of who owns or should own and manage the intranet or corporate portal. As such, it is frequently recommended that organizations consider engaging a third-party or consultant to conduct the assessment. While the cost may be prohibitive for organizations with tight budgets, a third-party may be more successful in gathering sensitive opinions and feedback, as they, unlike stakeholders, have no personal attachment or stake in neither the intranet nor a political agenda.

As the intranet is not just a single internal site, but the sum of the internal infrastructure including all sites and the enterprise email system, it makes no practical business sense for it to be wholly owned or managed by one group – be it IT, communications, HR or anyone else. The enterprise portal is no different. The intranet and the organization’s portal should serve the business needs of all users, not just the users in one area of the company. Therefore, the needs and requirements of each stakeholder and user are relevant and each needs to be engaged as part of the assessment process. This does not mean, however, that every single employee needs to be asked his or her opinion. It does mean that a representative sampling of user opinions is crucial to gathering an accurate reading on user needs and requirements.

For all intranet and portal undertakings, there are generally five major phases: assessment, planning, technology audit and specifications, design and build, and promote and launch. There are many ways to categorize and break down the project management cycle or methodology, and many sub-phases or stages for each of the five major phases listed below. However, the cycle illustrated below is a fair representation of Prescient Digital Media’s recommended intranet project management cycle.

PRESCIENT DIGITAL MEDIA'S METHODOLOGY

The first two phases, assessment followed by planning, are perhaps the two most important phases; without undertaking rigorous and thorough assessment and planning stages, the subsequent three phases will not realize their potential.



The purpose of the assessment is to identify the organization's needs and requirements. Steps in the assessment phase should include:

- Stakeholder interviews
- User surveys
- User focus groups
- Review of existing research (employee and communication surveys)
- Usability testing
- Benchmarking (best practices)

Once the needs and requirements are identified, the planning – or the answer to the expressed needs – may begin. The planning phase maps out the strategic and tactical approach to building or redesigning your intranet and/or corporate portal. Once the planning phase is complete, the end result should be an expansive strategic plan with many elements including:

- Strategic plan
- Success measures and measurement plan
- Organizational recommendations
- Functional brief and plan
- Change management plan
- Marketing and promotional plan
- Funding model
- Business case and ROI model
- Information architecture
- High-level wireframes
- Design concept
- Governance model
- Content management plan

While the technology audit and specifications phase has been separated from the assessment and planning stages here, the audit and the mapping of the required specifications are in fact assessment and planning exercises. It is not uncommon to lump this phase into the assessment and planning phases. In this critical phase, current technology (infrastructure, hardware, software, capacity, etc.) that is deployed within the organization is documented.

A gap analysis is then performed in conjunction with the technology (hardware and software) and vendor evaluations to determine what is required to deliver the functionality specified in the plan.

By committing to a formal and thorough assessment process, the uncertainty and risk of undertaking large-scale intranet endeavors, often involving multiple stakeholder and user groups inside and outside the organization, is greatly reduced or eliminated. The assessment stage also serves as an important political measure for securing stakeholder buy-in and support. Without undertaking proper assessment and planning, an organization will run the risk of not securing the needed consensus to deliver a solution that is acceptable to all – which is critical for delivering value and motivating use.

If the intranet solution is not acceptable to all groups that will use it, the solution may require re-engineering or termination – costing far more time and money than the recommended route of properly assessing and planning your intranet from the beginning. Most importantly, the assessment and planning stages provide the foundation for creating a sound and leading edge model for the building phases of your intranet.

CASE STUDY:

Toronto-based Manulife Financial is a global insurance and financial services company. With its global reach and need to remain competitive, Manulife decided to evolve its current Lotus Notes database system into one that will be a true, web-based portal.

Before undertaking any coding, design or choosing any software or technology, Manulife undertook a thorough assessment of their internal environment to serve as the foundation for developing a comprehensive strategic plan. The assessment included internal research and interviews with 35 key stakeholders at Manulife.

The final Plan serves as a strategic and functional blueprint with more than 250 pages and 50 recommendations for the development, governance, and management of the proposed portal. Included in the plan are detailed functional recommendations, the information architecture schematic detailing the portal's navigation, case studies and benchmarks of leading intranet companies, governance and content management recommendations, the portal's creative design, and a business case with a planned return on investment (ROI).

(Source: Manulife Financial)

MORE THAN MONEY

While appraising the return on investment of an organization's intranet or portal is critical for most executive leaders, there exists a great deal of untapped, intangible ROI that is perhaps even more critical than the measured dollars and cents.

David Upton, a professor at the Harvard Business School, believes that it is foolhardy to measure the value of either an intranet or Internet site merely in terms of cost savings and cost avoidance. "The Internet has the potential to lead to new business models that managers may not currently be aware of," explained Upton in a CIO Web Business Magazine article. Upton believes that the best means for measuring an intranet's value is to treat it as a financial investment.

Upton encourages organizations to experiment with technology while basing decisions on lessons learned from their experimenting. "It's like an option-value in the future," he said. "The value of investing in the Web comes from the options it will create for an organization in the future."

Mitre Corp executives agree. "Our most important gain can't be as easily measured – the quality and innovation in our solutions that become realizable when you have all this information at your fingertips," said Mitre CIO Al Grasso in an interview with CIO Web Business Magazine.

"Our high-level (priority)...is to make it easier for people to give information to others and to use information from others to solve the next problem that comes along," added Mark Maybury, Mitre's director of artificial intelligence and executive director of the IT division.

Of course, there are many other important, intangible benefits that cannot be measured (or are very difficult to measure) that deserve attention. A well-planned and deployed intranet can lift an organization's reputation in the market. Companies such as Cisco Systems, General Electric and Oracle have received millions of dollars in free publicity and media coverage related to their in-house efforts to reduce costs and increase operational efficiencies thanks to their internal and external use of Internet

Cisco Systems, Oracle and General Electric (GE) are only three high-profile technology cheerleaders that have received millions of dollars in free publicity from media outlets documenting each company's success in reducing operating costs and increasing revenue due to their investments in Internet (and intranet) technology.

GE's CEO, Jack Welch, has become a web poster boy of sorts after his legendary claim that GE will save as much as \$10 billion over the next two years.

"Every day we uncover hundreds of millions of dollars in efficiencies," said Welch.

(Source: The Industry Standard, January 22, 2001)

(and intranet) technology. While the free advertising surely enhances revenue and long-term profitability for these progressive companies, the attention also serves as a highly successful recruiting tool. People love winners, and the frequent praise and attention served by the media for these technology leaders also serve notice to potential employees making recruiting new people and retaining existing people a lot easier, and a lot less expensive.

Before rolling out the corporate intranet, knowledge was closely held within various workgroups and silos, rarely diffusing outside the immediate workspace at Massachusetts-based Mitre Corp. Since the release of the corporate intranet, employees talk openly and knowledgeably about projects they are not directly connected to. As most leading intranet companies do, Mitre measures the use and contributions to the intranet. By analyzing content usage and intranet metrics, Mitre discovered that 35% of all staff publish technical information on the intranet on a daily basis, and approximately 60% retrieve technical information several times a day. In 1995, information collections within Mitre numbered less than 100 – as of early 2000, there were more than 300. (Source: Debby Young, CIO Web Business Magazine, May 1, 2000)



The Sodexo intranet home, compliments of SodexoUSA (“Revolutionizing Employee Communication”, Angelo Ioffreda, Sodexo USA)

At Eckert Seamans Cherin & Mellott, a Pittsburgh law firm, an extranet became the key to going national without opening any additional offices. The 44-year-old firm wanted to serve as the national coordinator for thousands of product-liability claims against a major client. But the firm couldn’t possibly set up shop in all the affected jurisdictions: 50 states, Puerto Rico, and the Virgin Islands. Instead, the firm’s executive team decided it needed two things: a network of partners and a network connecting them. Those partners were ‘local counsel’ – dozens of far-flung law firms that Eckert Seamans hired to handle claims in their own states. The network that connected them was Eckert Seamans’s extranet, which contained all related documents, including briefs, transcripts, interviews, research, medical and scientific information, and correspondence.

Obviously, storing paperwork in one location helps everybody access documents faster. But Eckert Seamans argued that the extranet provided two more important benefits. First, it was an unprecedented way to provide clients with a consistent nationwide defense by making sure that all the lawyers are literally on the same page. In addition, it saved time and money by providing those far-flung partners with research to strengthen the cases in their states. And the extranet let the firm’s 215 lawyers coordinate cases in a way they couldn’t have before. “There is no way we could have managed and provided oversight to claims in Texas or California,” said the firm’s executive director, James Parks, citing the time

CASE STUDY:

In 1995, Mitre Corp.'s intranet averaged 438,000 requests per month. By 2000, the intranet averaged 8 million requests per month. Mitre's intranet has been so well received that 91% of employees felt the intranet had a positive effect on their productivity – enabling them to find information or expertise when needed.

(Source: Debby Young,
CIO Web Business Magazine, May 1, 2000)

and cost of constant travel, telephone calls, and shipping tons of hard copies cross-country.

The system, part of a complete technology overhaul, didn't come cheap: Parks estimates that Eckert Seamans had invested nearly \$1.3 million as of 2002, including construction costs to create a separate technology center. But chief operating officer Dennis L. Veraldi was philosophical about the cost. "Sophisticated, larger clients just expect that you're going to be able to do those things, that you have the capability to service them," he said. The firm did not worry much about tracking the system's return on investment. "It's part of the infrastructure, part of the overhead," Parks said. "You have to manage it the same way you manage supplies or telephones or receptionists or libraries or anything else." But he credited the technology with cutting legal-work costs by 6% to 7% annually and allowing the firm to take on more clients (source: Inc. Magazine, Special Technology Report: Inside Story, www.inc.com, April 2002)

Last but not least, the most effective intranets greatly enhance communications between all levels of employees and users within an organization – regardless of their geographic or hierarchical location. And while improved communications is difficult to measure in terms of dollars and cents, many organizations conduct annual communications surveys to measure and gauge satisfaction rates among employees. Of course, when internal communications is strong and well regarded by employees, the organization's culture is almost always positive and motivating – and every organization values a healthy and rewarding culture.

ROI STUDY:

Of the respondents to the Prescient Digital Media ROI survey that undertake 'rough estimates' of their organization's intranet, answers varied from \$0 to \$20 million. The average annual ROI of respondent intranets fell just shy of \$1 million (\$979,775.58).

While less than 20% of organizations have measured specific benefits, a majority of organizations have at the very least made a 'rough estimate' or guess of the value of their ROI.

ROI STUDY FINDINGS

Despite all the fuss and talk of measuring the ROI of intranets, a new study confirms a widely held suspicion: most organizations spend little or no time measuring intranet ROI.

A study, conducted by Prescient Digital Media Ltd., found that only 6% of organizations undertake ongoing, specific measurement of the ROI of their intranet. Occasional measurement is undertaken by only 24% of organizations and 51% either do no measurement, don't know if they do, or only guess at the ROI. 18% are considering ROI measurements.

The study drew responses from more than 240 participants – intranet managers, professionals and consultants – representing the intranets of a wide variety of organizations including KPMG, Scotiabank, Volvo, Shell, RBC Financial Group, New York Life, Hewlett Packard and others.¹

How important is the ROI of your intranet or portal to your organization?			
Unimportant	6		■
Somewhat unimportant	6		■
Neither important nor unimportant	6		■
Somewhat important	36		■
Very important	40		■
Don't know	5		■
Total	100%		

While few organizations are spending significant time accurately measuring ROI, it is important to 76% of the respondent companies.

Also, while it may rarely be specifically measured, the intranet's benefits are inherently appreciated. More than two-thirds of respondents state that the intranet has improved the productivity of the organization.

The study, conducted in the spring of 2003, was self-select (voluntary) conducted online with readers of various intranet publications including senior management (VP, CEO, COO, CIO, etc.), middle management (directors, managers, senior managers) and consultants who regularly work with their organization's intranet or with others.






Also, while it may rarely be specifically measured, the intranet's benefits are inherently appreciated. More than two-thirds of respondents state that the intranet has improved the productivity of the organization.

How does the intranet or portal impact productivity at your organization?	Greatly hinders productivity	3	
	Somewhat hinders productivity	7	■
	Neither hinders nor improves productivity	13	■
	Somewhat improves productivity	45	■
	Greatly improves productivity	23	■
	Don't know	9	■
	Total	100%	

Highly representative of the challenges facing those that manage intranets, only a bare majority (52%) of organizations surveyed said they are satisfied or very satisfied with their intranet or portal while 36% are dissatisfied.

How satisfied are you with your organization's intranet or portal?	Very dissatisfied	13	■
	Somewhat dissatisfied	23	■
	Neither satisfied nor dissatisfied	8	■
	Somewhat satisfied	38	■
	Very satisfied	14	■
	Don't know	3	■
Total	100%		

The percentage of organizations with intranet users varied with the wide range and size of organizations. 60% of organizations had 1000 users or more while 21% had fewer than 100 users. The largest group had 1,000 to 5,000 intranet users, representing 25% of the survey respondents.

How many intranet users in your organization?	Fewer than 100	21	
	100 – 1000	19	
	1000 – 5000	25	
	5000 - 10,000	15	
	10,000 +	20	
	Total	100%	

BENEFITS:

To gauge exactly what intranet benefits are valued and how they are measured, the survey segmented benefits into 12 categories:

1. Reduced hard costs: print, paper and distribution costs.
2. Improved sales: increased revenue and reduced response time.
3. Enhanced communications: better, faster employee communications.
4. Enhanced competitiveness: time-to-market, information accessibility.
5. Enhanced application access: centralized application access.
6. Enhanced infrastructure utilization: reduced infrastructure and integration costs.
7. Enhanced collaboration: better, cost-effective training and collaboration.
8. Reduced product cycle: reduced inventory and faster invoicing.
9. Improved customer service: improved information retrieval and customer self-service.
10. Enhanced human resources: reduced administrative costs and improved employee retention.
11. Enhanced procurement: reduced cost and time of purchasing goods.
12. Content management: reduced time and cost of publishing content.

“Although ROI has not been established in our current intranet we do see the potential and the need to create a more efficient intranet to be able to reduce costs and engage employees in a more direct method.”

ROI survey respondent

Unfortunately, of all the benefits measured, none of the above benefit categories is measured in more than 20% of organizations. Most organizations undertake a ‘rough estimate’ (a guess) and do not undertake precise measurements.

Leading the measured benefits parade is content management, measured

in 20% of the respondent organizations with 42% of respondents undertaking a rough estimate (a guess) of content management's ROI value. Other leading areas of measurement included communications, application access, human resources and infrastructure utilization.

Percentage of organizations measuring specific ROI benefits:

Measured ROI Benefit	Measured Estimate	Rough Estimate	No Measurement
Content management	20%	46%	42%
Communications	18%	53%	29%
Application access	17%	37%	45%
Human resources	15%	51%	34%
Infrastructure utilization	13%	37%	49%

It is interesting to note that while fewer than 20% of the organizations surveyed have undertaken measurements of specific benefits, a majority of organizations have at the very least made a 'rough estimate' or guess of the value of their ROI.

The average annual ROI of respondent intranets fell just shy of \$1 million (\$979,775.58)

Of those that measure or offer 'rough estimates' of the ROI of their organization's intranet, answers varied from \$0 to \$20 million. The average annual ROI of respondent intranets fell just shy of \$1 million (\$979,775.58).

Respondents were also asked to provide a measured (or estimated) yearly ROI of each of the 12 benefits.

Measured ROI Benefits	Average Yearly ROI
Content management	31%
Applications access	28%
Human resources	27%
Collaboration	27%
Hard costs	25%

Not surprisingly, content management is the intranet ROI champion, with an average yearly ROI of 31% among the respondent organizations. This correlates well with the perceived value of an ROI benefit. In part I of the Intranet ROI survey respondents were asked to rate the most important areas for intranet ROI measurement. Content management was cited as important or very important by 87% of the respondents – second only to competitiveness (90%).

More surprisingly is the ROI of intranet communications. According

to the survey participants, the average yearly communications ROI of respondent intranets is only 11% – the least of all ROI benefit categories. Conversely, communications ranks second in importance – tied with content management.

MEASURING THE ROIS OF INTRANETS: MISSION POSSIBLE?

There is a lot of hype surrounding ROI. Everyone and their application service provider are trumpeting the benefits of intranet applications and portals. Truth be told, measuring the ROI of an intranet appears to be more art than science. Few organizations are actually measuring an intranet's benefit in terms of dollars and cents (or pounds and pence).

There is no 'magic bullet' to appraise the dollar value of an intranet. Measuring the ROI of a corporate intranet or portal is, at best, an imperfect science. In fact, it is impossible to measure an intranet's exact dollar value. Although measuring the precise return on investment may not be possible, more organizations are, nevertheless, attempting to quantify both potential and existing ROI.

While technology stalwarts such as Cisco and Oracle have made big strides in appraising (largely for marketing purposes and bragging rights) the dollar value and performance of their existing intranets, few others have done any extensive measurement.

To better understand how organizations value and measure the ROI of their intranets, Prescient Digital Media partnered with the Katz School of Business at the University of Pittsburgh to conduct an extensive, but voluntary, study of willing organizations. The first part of a two-part survey was conducted in the spring and summer of 2002 through an online survey tool. While the study is not a scientific sample of a specific audience, the respondents were a mixture of intranet managers, consultants and readers of Intranet Journal. This diverse group of people offered unique intelligence into the minds of organizations and professionals operating corporate intranets.

Two-hundred and seventy-five (275) survey participants were asked to rank in order of importance almost 70 different intranet investment benefits organized according to 12 broad categories.

1. Hard costs
2. Sales
3. Communications
4. Competitiveness
5. Application access
6. Infrastructure utilization
7. Collaboration
8. Time to market (cycle time)
9. Customer service
10. Human resources

- 11. Procurement
- 12. Content management

The findings were somewhat surprising: softer, harder to measure benefits such as competitiveness, communications and content management (the big ‘C’s’) were rated the most important. Traditional areas of focus for ROI benefits, including procurement, sales and time to market, were rated among the lowest benefit categories.

Most important benefit categories	
1. Enhanced competitiveness	90%
2. Content management	87%
3. Enhanced communications	87%
4. Hard cost reduction	86%
5. Enhanced customer service	85%

Most important benefit categories	
1. Enhanced competitiveness	90%
2. Content management	87%
3. Enhanced communications	87%
4. Hard cost reduction	86%
5. Enhanced customer service	85%

“I’m not that surprised,” said David Yockelson, an executive vice-president and director with META Group, a technology research and analysis firm. “The value of the intranet to me is going to be more around productivity and soft costs. My expectations are more about communicating more freely, time savings, and information availability rather than sales and hard cost savings.”

When survey participants were asked to rank specific line item benefits (almost 70 in all), access to information, as well as increased sharing and accuracy of information led the benefit parade. The lowest ranking benefits related to procurement and time to market.

Most important ROI benefits	
1. Improved information sharing (customer svc.)	97%
2. Enhanced communications and information sharing (communications)	95%
3. Increased consistency of info (customer svc.)	94%
4. Increased accuracy of info (customer svc.)	93%
5. Reduced or eliminated processing	93%
6. Easier organizational publishing	92%

Least important ROI benefits	
1. Reduced capital cost by using ASP	43%
2. Reduced reliance on proprietary standards (vs. open standards)	54%
3. Reduced inventory	55%
4. Increased collaboration w/ vendors reducing time	55%
5. Wider marketing reach (Internet v. EDI & Catalogues)	58%
6. Increased control over purchasing process	63%

Again, specific benefits relate to customer service, communication and content management – access to and accuracy of information. While the results may be somewhat unexpected given the emphasis on softer benefits, the results were appreciated by some of the pundits.

Yet, as many readers and intranet managers can attest, executives want to see hard savings. While soft benefits can produce some ‘wow’ numbers, including millions of dollars attributed to time saved (improved productivity), corporate bean counters want to see cold, hard numbers.

“What is more convincing? Clearly the hard cost savings,” Yockelson said. “Nobody wants to hand out money for anything – times are tight. If you can’t justify it, it won’t happen. They’re (executives) bristling at any costs.”

CONCLUSION

The ROI of an intranet is sought after and valued at most organizations, but few are undertaking specific measurement programs to quantify the value of their intranet investments. While a majority of organizations make a rough estimate (guess) at the value of specific intranet benefits, still more are planning to measure ROI. To quantify the ROI of an intranet, organizations will have to act decisively to establish baseline measurements for future comparison while enlisting the support and efforts of other people and departments across the organization to determine specific benefits for measurement.

As with any critical business system, the intranet must deliver measurable performance and remain accountable to the investment. If you are not measuring your intranet’s value, then you risk failing the needs and demands of both employees and management.

ABOUT PRESCIENT

Prescient Digital Media is a group of senior intranet and e-business consultants based in Toronto and Vancouver who support clients across North America. We provide strategic web and intranet consulting, planning and communications services to organizations of all sizes, enabling them to compete more effectively in the digital economy.

We leverage strategic relationships, communications expertise and benchmarked best practices to plan and deliver websites that are focused on our client's key objectives and provide significant return on investment. Our consultants' expertise is focused on helping clients to take full advantage of the opportunities that exist right now while building a foundation for future success.

Prescient provides innovative methodologies and tools that facilitate the development of web-enabled solutions in a manner that is timely, cost-effective, and most importantly, closely aligned with our client's strategic business direction.

Prescient's focus includes the assessment, planning, technology selection, content and launch of intranets, websites, and web-based tools for industry leaders in a variety of sectors.

Prescient Internet and intranet services include:

- Analysis - evaluation, business requirements, user research, and benchmarking
- Planning - strategic planning, functional specifications, information architecture and design.
- Technology - platform and application evaluation, selection, and implementation
- Implementation - design, integration, content, and tools
- Marketing - communications, content management, operation, marketing, and SEO

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STRATEGIC SERVICES:

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