City of (client city)

Intranet Study

Fall, 2006

Randy Welch

Table of Contents

FINAL DRAFT

City of (client city)
Intranet Project
December 19, 2006

Randy Welch

Introduction

"Great Intranets are not great because of their sophisticated design or the level of automation they have achieved. Great Intranets are great because they help people communicate in new and useful ways. A high level of sophistication may, in fact, inhibit true communication, by limiting free input and response to all but a sophisticated few. When an Intranet achieves true greatness, it is impossible to single out individuals responsible for its success, because the energy and innovation are in conversations spread widely around the organization, and the participants all feel responsible."

Steven L. Telleen, Ph.D.

The man who wrote the above quote is the founder of an organization called iorg.com. He is generally credited with coming up with the word "intranet" to describe a collaboration project he worked on with Amdahl. This quote was taken from a book he wrote in 1996, but is just as true today. As long as the intranet is looked on as another technology project, all that will be gained from its implementation will be more technology that gets in the way of corporate progress. A decision is required at the highest levels of an organization contemplating deploying an intranet – are we seeking to create an efficient machine or an organism capable of adapting to situations and learning from its experiences?

Conventional wisdom has always held to the notion that knowledge is power - the more that you know that no one else knows, the more powerful you are. This hypothesis proved itself true for many years. As the communication of thoughts and ideas became as easy as was the communication of bits and pieces of information, this idea began to break down. People started to realize that being able to put their ideas together with someone else's ideas created something that was bigger than the sum of the original parts. From this realization came the Internet. Seeing the global impact of the Internet, corporations began to realize that they had a body of knowledge that could be leveraged by applying the same philosophy to their knowledge workers. Thus – the intranet.

What has taken so long for the intranet to become as ubiquitous as the Internet? It is easier to share information with a nameless, faceless cloud than it is to share with the person in the office next to yours. Why? The cloud is not competing with you for raises and promotions. It goes back to that "knowledge is power" concept. Getting away from the idea that hoarding information is advantageous to ones future is the challenge of the intranet. This is a paradigm shift of huge proportion. The paradigm shift is not the intranet itself, but our idea of what is good for the organization and how to manage toward that end.

While the intranet in and of itself would not be classified as a paradigm shift, it is both an enabler and a result of a series of paradigm shifts. None of these shifts are technical in nature, but all of them benefit from the technology of the intranet. Some of these shifts are:

- Culture – competitive vs. collaborative

- Structure – silos vs. symbiosis
- Drivers – individual success vs. corporate progress

The paradigm driving each of these is best evidenced by the lack of communications between organizational units, which is encouraged by the corporate management style. A shift, or rather a complete reversal of direction, in each of these areas would create a climate where an intranet would flourish. This would result in a corporate culture that would both invite and encourage an adaptive, learning environment that grows by getting smaller.

FINAL DRAFT

I. The Cultural Revolution

The Chinese cultural revolution that took place in the 1960's and 70's was a struggle for power within the Communist Party. While it was looked on with interest and even some concern by the rest of the world, it was essentially an internal struggle. At stake was the ability to control the largest nation in the world. The weapon most used in the waging of the "civil war" that ensued was information. Both factions understood that information was power and they manipulated it to their advantage. Corporations are facing the same type of revolution today. There are two sides to the issue, both of which understand that knowledge is power. The difference in the opposing cultures is that one wants to use that knowledge for personal and departmental advantage, while the other recognizes the value of access to the corporate body of knowledge for the good of the organization. While this analogy may seem overstated, those entities which have undertaken this revolution – successfully or unsuccessfully – will attest to the fact that the problem is not in the technology but in the change to the way people think.

At the center of the issue is the recognition of the concept of knowledge management. One of the best definitions of this term comes from Wikipedia which is itself an excellent example of the implementation of an intranet on an Internet platform:

> **Knowledge Management** (**KM**) refers to a range of practices and techniques used by organizations to identify, represent and distribute knowledge, know-how, expertise, intellectual capital and other forms of knowledge for leverage, reuse and transfer of knowledge and learning across the organization.

The recognition of the existence and importance of knowledge in the organization is basic to any intranet implementation. As long as it is acceptable for the organization to

operate in silos of information, it will be impossible to successfully manage the information wealth of that organization.

Once the idea of knowledge management is accepted, one must recognize the fact that there are those whose jobs it is to manage that knowledge. This recognition highlights the existence of a class of workers known as knowledge workers. Peter Drucker defined a knowledge worker as "one who works primarily with information or one who develops and uses knowledge in the workplace." In other words, they don't build widgets; they build the knowledge base of the organization. It has been estimated that, due to the explosion of information availability and importance to any corporation, this segment of the workforce now outnumbers all others by a four to one margin.

The intranet is recognition of the criticality of knowledge management to any organization, and the corresponding necessity to provide the tools and technology needed by the knowledge workers to create and collaborate on this corporate asset. The cultural paradigm shift is in the willingness of the organization to invest in and encourage the development of the tools to support this part of the infrastructure.

II. The Structural Redesign

If one accepts the idea that a there is a need for this thing called knowledge management and that there are people whose core job duties are directed at defining and managing this knowledge, the logical question would be, "Why can't I handle knowledge the way I handle everything else?" At issue with this approach is the ubiquitous nature of information today. Technology has given a large segment of the population access to data and information that would have been restricted to a privileged few not too many years ago. The idea that we can keep information "secret" in today's society is tantamount to burying one's head in the sand. The real question is not how do we keep our information in the right silos, but why do we have silos to begin with. As stewards of the public trust, we have access to a wealth of knowledge that is currently stored in the memory of our workers. It is time to tap into that storehouse and make it available to the rest of the organization. How do we do that?

The first step in becoming a knowledge based organization instead of a rules based organization is to restructure the thinking of management. The mindset for management was developed during the industrial revolution when the objective was to structure and standardize. This created the need for a top down, central management structure where decisions are made at the top and assumed to filter down through the various levels to the ones who need the information. This was not only the traditional style, but it was the best style in an industrial organization. With the tools and technologies of today, we can use a distributed model of management allowing decisions to be made at the point of contact, thus improving productivity and shortening the time between the identification of an opportunity and the realization of a solution. Distributed decision-making forms the

basis of the organic, self-adapting organization. An intranet provides the communication capability to coordinate the output of a distributed organization to support goal directed activities.

Once the management style is adapted to the realities of today's world, the structure of the rest of the organization can begin to be reshaped. The walls that are built into a central management style only inhibit the ability of an organization whose style is goal directed instead of output directed. The organism that is the corporation must be able to work without regard to company/divisional/departmental/unit definitions. True collaboration will come only when the knowledge workers can look across the organization to find the information they need to do their job. Even more importantly, the restructured organization will encourage the cross functional approach to managing this key element of any entity – the workforce and the knowledge they have accumulated over their tenure.

The last step in restructuring for the management of knowledge is the tool box. For our workers to be able to morph into the shape needed at any given time, they must have the tools necessary operate in this environment. Email and shared corporate drives are no longer adequate for this level of collaboration. There must be shared calendars, document management, and probably most important – the ability to "google" it. Stored knowledge must be accessible in terms defined by the one needing the knowledge. Artificially contrived "meta data" can be in inhibitor rather than an enabler of this type of organization. The "system" should be able to provide a "knowledge map" which directs

our workers to the source of information or people who can contribute to the development of knowledge for a particular circumstance.

III. The Driver Redirection

In the technology industry there is a set of programs in every computer that is known as the drivers. The sole function of these programs is to translate the output of a device (i.e. a keyboard or a mouse) into input that another device (i.e. a computer) can recognize. Without drivers, programs would be unable to decipher the intent of the man/machine interfaces. In and of themselves, drivers are of no benefit to the target program. It is only when they get a signal from their associated device that they are able to provide information to the target program. While they go by many other names, every process requires drivers – translators of data into information. This is especially true in the case of the intranet.

The diagram below (Figure 1) depicts the knowledge continuum, starting with raw data and culminating in truth (that which be shown to conform to fact or reality). Neil Fleming put the whole thing in perspective when he said:

- A collection of data is not information.
- A collection of information is not knowledge.
- A collection of knowledge is not wisdom.
- A collection of wisdom is not truth.

There is a process through which each stage of improvement in the quality and quantity of data morphs from data to truth. As the information travels from one stage to the next, it goes through the process that transforms the input into the output. Thus, each bubble in the diagram is a driver. Without the driver, nothing can move up the continuum. Consequently, the input remains in the repository represented by the bubbles and becomes stagnant. Without movement, there is no transformation.

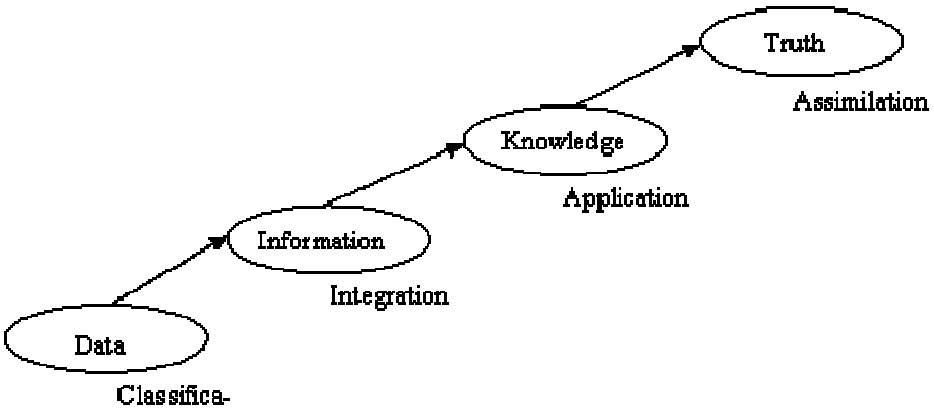

Figure 1 – Knowledge Continuum

Adapted from "Knowledge Management" – Gene Bellinger

The adaptation of the Internet for use as an internal tool for business and government has produced a second revolution in the use of the Internet protocol. The same benefits that people have found in the Internet – information availability, ease of use, wide open channels of communication – are now becoming part of the structure of the workplace in many corporations.

IV. Roadblocks

As with any technology change, there will be hurdles to overcome. Unless these roadblocks are identified and action is taken to:

- Attack and Defeat – Eliminate the roadblock via full frontal attack
- Encircle and Encapsulate – Go around the roadblock and cut off its supply line
- Ignore and Resign – Pretend the roadblock is not there and watch the project die

The most common impediments to the success of an intranet implementation are:

- Resistance to change
- Information silos
- Focus (its not technology – its people)
- Size
- Conflicting goals
- Ownership
- Lack of leadership

It is interesting to note that none of these roadblocks have anything to do with the technology itself. It is all about the organization. Unless there is a willingness to recognize and incorporate these roadblocks into the project plan, the entire effort is doomed to failure. One cannot tear down walls and destroy silos without stirring up a lot of dust. This means that full management buy-in is the key to a successful implementation.

V. Recommendations

Anytime an agency of any size undertakes to reshape the culture in which it operates, the failure rate is very high. An intranet implementation is no exception. This is not a hardware/software effort that brings in the latest in whiz-bang technology. A fully integrated intranet requires a new view into the organization. As the diagram in Figure 1 illustrates, there is a path through which data travels to profit the organization. What is not shown on that diagram is that this is truly a continuum. Just because a piece of data passes through all the steps and is assimilated into the corporate culture does not mean that it can rest. There are no repositories in an intranet because that indicates that information reaches a state of rest – it reposes. A fully assimilated "truth" becomes just another piece of data when the next project starts. In other words, the cycle never ends and nothing ever stops being investigated, evaluated and assimilated. If it stops – it should be removed.

From these observations, I submit the following recommendations:

- Recognize that this is a knowledge management project

  The success of an intranet depends on the usability of the product. One must identify those who have the knowledge and find some way to obtain and store that information. It is imperative that a knowledge map be prepared early in the process. This provides a record of the knowledge workers, where they are, and what expertise they have. This is essential to structuring a successful knowledge based intranet.

- Reorganize around knowledge management principles

  An undertaking of this magnitude will require organizational and cultural changes. Managers must recognize that, for the entity to succeed, information must be easily accessible across the organization. Management will need to plan for the people that it takes to perform the job of the care and feeding of an information organism.

- Realize that the user – all employees – have a stake in the project

  The sole purpose of an intranet is to make the users' jobs more efficient and allow them to serve our customers more effectively. Our customer is the user – theirs is the citizen. We have to listen to what they say and give them what they need.

- Gain and maintain visibility

  This will be an entity wide project and must have buy-in and on-going support from the top down. The very size of this effort demands upper management participation and advertising. The employees need to know that this is a high priority to management.

- Do not compromise on quality

  First impressions are lasting impressions. The employees will sour quickly if they are presented with a half-baked implementation and told that there is more to come. If it does not improve their ability to do their job, they will come away with a bad impression. If it makes their job harder, they will not use it – and rightly so.

- Destroy silos

  The percentage of "confidential" information retained, especially by

governmental agencies, is very small. The Freedom of Information Act makes most of what we do available to anyone who asks for it. Set up very strict guidelines as to what can be protected on the intranet. If anyone outside can get the information, there is probably someone inside who needs the information to prepare for questions.

- Tear down walls

  With the availability of high speed communication throughout the organization and beyond, the opportunities for collaboration are enormous. If the information is readily available, skills can be tapped across the organization to accomplish complex projects without having to use outside consultants. Introduce your employees to each other and use the resources you have.

- Google it

  The information on the intranet must be accessible through common search mechanisms. The data stores should be search engine optimized based on user identified and definable key words. If meta data is used, the user needs to be able to define the classifications. If the user can't find it quickly and easily – it is not there.

Do not underestimate the size and complexity of an undertaking of this magnitude. Research Cisco and Microsoft's intranet projects and see the time and effort put in. The only difference between them and the average agency looking at an intranet is the time it takes for conversion and classification of the existing data. All the preliminaries stay pretty much the same.

In conclusion, the City must decide what type of project this will be. It can be as simple as restructuring current files and directories to make it more apparent who owns the information contained in the repositories. A second option would be to use a product like the one already purchased to develop a document management system. In this scenario, the documents that a given department chooses to put on the intranet will be stored and accessed according to a set of predefined criteria. Third, the City can look at knowledge management as a way to give the employees the tools to do their jobs more effectively and better utilize the knowledge workers that are scattered throughout the organization. Finally, the decision can be made to do nothing.

While the third option is far and away the most complex and time consuming, it will provide the most benefit in the long run. The organizational and cultural shifts that would accompany this type of effort would provide those workers whose job it is to find, manage, manipulate and report on information with the tools necessary to do their jobs more effectively. Fully deployed, a knowledge management system supported by intranet technology could transform the way the City of (client city) does business.