



Internal Search: Developing a Business Case

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Introduction

Search is foundational to a wide variety of experiences. The ability to instantly find relevant information and gain insights in large amounts of data from a variety of sources is key to organizational productivity. The data that organizations accumulate contain key insights that make the organizations more productive and effective. Enterprise search is the key that unlocks insight from data.

The reasons we search remain constant: we are looking for insight, information, and answers. Today, what we search for has grown to include a rapidly increasing amount of structured and unstructured data from a multitude of sources including databases, websites, applications, and file shares.

Google has taught us how useful and powerful search can be, but it has also given employees high expectations for simplicity and ease of use, to the degree that the phrase “Google it” is now a part of our everyday language.

Historically it has been difficult to meet these expectations, but when they are met, users are more engaged and productive, creating measurable returns on the investments in search.

Effective search is crucial for today’s knowledge workers to be successful in their roles. Multiple trends are increasing the demand to implement or improve internal search:

- **User demand for information.** Over the last two decades, technology trends such as social networking, machine learning-driven personalization, natural language, and mobile computing have revolutionized our internet experiences. Both business users and consumers have grown accustomed to on-demand functionality. Users expect to find information fast, even as data volumes have skyrocketed and the pace of change has accelerated.
- **Increasing complexity in enterprise IT.** While the volume of different types of data within and outside of the enterprise is exponentially increasing, the complexity of enterprise IT environments is also dramatically increasing. At the same time, IT departments have to respond faster than ever before to issues such as security breaches, application performance degradation, and system outages. Search makes it possible to derive insight for many use cases across large and disparate IT environments.
- **Increasing supply of unstructured content.** The volume, velocity, variety, and value of unstructured content in today’s digital world are rapidly increasing. Enterprises are using a growing number of specialized systems to improve productivity within specific functions and/or business processes. This results in information being trapped in those systems and therefore unavailable to others, leading to decreased productivity, employee frustration, and duplication of efforts. It also creates a growing opportunity for internal search to identify relevant and valuable

information across an expanding variety of systems, making them available to a larger number of users.

Making a Business Case

In the past, search solutions were not keeping pace with these trends, which made it difficult to make a business case for deploying them. The two greatest impediments were the following:

- Search implementations in the last decade have included large amounts of custom code, leading to increased costs of both implementation and ongoing support and maintenance. This necessitates very large expenditures.
- Return on Investment (ROI) for internal search is measured through productivity improvements, which historically has been considered soft ROI and therefore has not been enough to justify high investment costs.

However, in recent years much has changed, specifically on three very important fronts:

1. New technologies have reduced implementation costs by eliminating customizations. These software-driven solutions provide modular products that enable phased deployments, which provides cost and implementation scalability. This low-to-no customization approach has decreased implementation costs by factors of 2-4X, and even more so if existing infrastructure is utilized. Furthermore, this software-centric approach results in low support and maintenance costs and provides continuous improvements as vendors offer additional functionality as part of their release cycles.
2. Organizations have begun to recognize and quantify ROI beyond simple productivity gains. The critical driver of this are studies that prove that employee engagement drives both top and bottom-line growth. This has spurred the ideas behind a new approach, typically referred to as Return on Value (ROV), which is described in more detail below.
3. Until recently, digital transformation investments have been customer-facing, with a focus on the integration of digital technology into all areas of a business, resulting in fundamental changes to how businesses operate and deliver value to customers. It is now recognized that customer-facing digital transformation ideas can also be extremely valuable if they are extended to be employee facing too. Key benefits are:
 - a. Empowering Employees. Providing the autonomy and tools they need to do their jobs successfully. An Altimeter group study revealed that one of the highest ranked benefits of digital transformation for organizations included a positive impact on employee morale, with “37% of respondents stating that, after increased market share, employee engagement was the next big return.”

- b. Breaking Down Barriers. Jim DuBois, Corporate Vice President and Chief Information Officer at Microsoft stated, "Knowledge and insight exist inside your infrastructure; it's just waiting to be found. By securely breaking down information barriers we'll understand and learn how everyone in the company uses their time and help maximize the impact of our workforce."

No digital transformation initiative succeeds if it doesn't include internal search, which is a fraction of the total cost, but potentially the cornerstone of its success.

ROI Overview

Generally, ROI is about reducing operational costs or improving productivity.

The ROI measurement for internal search is based on the time saved finding the information required to do one's job.

To start with, let's review a few research-based statistics around how much time is actually being *wasted* across organizations as employees struggle to find the information they need to effectively do their jobs.

According to IDC:

- 36% of a knowledge worker's day is spent looking for and consolidating information that is spread across a variety of systems.
- 61% of these workers regularly access four or more systems to find the information they need to do their jobs
- Nearly 15% need to access eleven or more systems
- Despite all of this searching, only 56% even find the information they are seeking.

Now let's try to do some basic calculations on this system by system (similar to going store by store in search of what you need) by using a simple approach to illustrate efficiency/productivity gains:

- Let's assume that each employee saves 15 minutes a day when he/she is looking for information. For a 1,000 person organization the savings equate to:
 - i. 15,000 minutes per day (250 hrs/day)
 - ii. 75,000 minutes per week (1,250 hrs/week.)
 - iii. Assuming 50 weeks per year, approximately 3,750,000 minutes per year (62,500 hrs.)
 - iv. This equates to \$3.125 million wasted per year
 - Calculation assumes an average employee cost of \$50 / hour – assuming per employee loaded costs of \$100K per year.

- v. And let us not forget the frustration this process causes employees, especially since in half of these cases they don't even find what they need. Even if they do eventually find the information they are seeking, is this the kind of employee experience we want?
 - You could easily calculate the potential impact on efficiency by using your own assumptions based on the above framework.

We could also use a more sophisticated model by using different savings for different functions. For example:

1. Sales and support teams are heavy users who average x searches per week.
2. Finance staff are light users and search much less frequently.

As simple as this seems, the reality is that measuring ROI for internal search can be difficult for several reasons:

- We don't have an accurate way to measure the amount of time our employees spend searching for information and expertise.
- We don't have a good grasp of our knowledge workers' productivity.
- Factors such as duplication of work are measured in manufacturing and other process-driven activities, but are rarely acknowledged in knowledge industries. Enterprise search can enable increased reuse of content (such as PowerPoint slides or customer presentations) by making it easier for employees to find similar documents, eliminating duplicate work efforts.
- The savings from being able to leverage existing, legacy systems (such as Lotus Notes or Documentum) versus replacing or migrating them are not accounted for.

You could also determine ROI by looking at specific business use cases for internal search. For instance:

- An organization can use search to implement an information portal that improves the overall efficiency and effectiveness of customer service. This is achieved through reduced call times and call volumes by giving self-service access to customers to solve their issues or obtain the status of an issue. Support personnel could use this same portal – likely with access to information not available to customers – to ensure that customer questions are answered correctly the first time. This same concept can apply to an IT help desk.
- Each time sales professionals call customers or prospects, they must be prepared to answer a host of questions. With a diverse set of complex products and services to sell, sales professionals often rely on many forms of dispersed knowledge assets and the expertise of their distributed colleagues for the support needed to move the sales process forward.
 - Providing sales staff with access to enterprise information can help shrink the sales cycle, improve prospects' satisfaction, and potentially differentiate account executives from competitors. This can lead to a significant return in increased product sales and overall customer satisfaction.

- R&D and engineering organizations can use search to find critical information to help innovate, reduce duplication, and get products to market more quickly.

ROV Overview

Given the challenges of measuring ROI and the inaccuracy of the methods used historically (time saved per employee times number of employees), we have to find a more accurate way to measure return on investment. Our customers have found Return on Value (ROV) a better measure to capture the return on their search investments. ROV focuses on the return that comes from having more engaged employees.

If we think about employees as customers and apply the same ideas and techniques used for customer engagement to employees, then we can have a meaningful and positive impact on them. Engaged employees are:

- Passionate about their jobs
- Committed to the organization
- Put discretionary effort into what they do every day

Internal search can act as a facilitator, so “you only look one place” (YOLOP) to find the information you need to do your job. YOLOP can address many of the productivity issues employees are facing. It makes it EASY.

Some examples to consider for ROV are:

- Increased employee satisfaction. Workers who can readily find the information they need to do their jobs are naturally happier and more productive. Company image can only improve as workers present a more positive face to the world.
- Increased customer satisfaction. Customers who interact with well-informed employees receive the information they need more quickly and have a better overall customer experience.
- Employee loyalty and commitment. Employees who feel that their employer invests in their success exhibit a higher degree of loyalty than those who don't.
- Employee engagement and contribution. When employees are productive and happy, they contribute more and make the company a better place to work.
- Decreased dependency on a few experts for information. This enables those few experts to produce more rather than answer repetitive questions.

Leadership needs to realize that by making it easier for employees to find information, they are demonstrating a commitment to support and help their employees succeed. This results in more engaged

employees, which leads to many benefits for the organization. After all, an internal search solution cannot be less important to them than the HR system!

Final Thoughts

1. The truth is that an organization's most valuable asset is the team that has come together to produce results and make the entity successful. The book "The Loyalty Effect," written by Bain & Company Director Frederick F. Reichheld, builds a powerful economic case for loyalty and concludes, "Inventories of experienced customers, employees, and investors are a company's most valuable assets. Their combined knowledge and experience comprise a firm's entire intellectual capital." It goes on to describe loyalty leaders as those who "choose human assets carefully, then find ways to extend their productive lifetimes and increase their values." Reichheld argues that human assets can increase in value and that good business leaders often focus on doing just that within their employee base to grow the value of their businesses.
2. A meaningful focus on employee productivity is one of the keys to their loyalty and commitment. Many of our customers have a focus on their employees and acknowledge that this focus is key to their long-term success and the driver for their investments in internal search.
3. Any internal digital transformation project MUST include internal search. When an organization embarks on external digital transformation, search is a critical part of the initiative, but a small percentage of the cost. Search is a critical part of internal digital transformation initiatives and is indeed a small percentage of the cost.
4. Consider the following questions: What is the dollar value of improved morale, satisfied customers, or a more systematic capture and transfer of employee knowledge? What does a company lose by delaying implementation of an engineering or R&D search portal? How about providing access to all employees through internal search?

I welcome your feedback and very much look forward to a dialogue about the ideas in this paper. Please don't hesitate to contact me at mzarrabian@bainsight.com.