



***Fast Data Technology***

# **Intelligence at Work:** Web Management for Information and Protection

*White paper*

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## **Executive Overview**

Corporations invest millions of dollars setting up fast data channels, installing computers, servers, and firewalls, to insulate company networks, and to provide safe access to the vast and ever-growing Web. They define reasonable usage policies for employees that they think are adequate to prevent the entry of inappropriate material. However, employees routinely jeopardize the whole endeavor by opening the floodgates to the wilder recesses of the Web. Moreover, employees complain of slow response time and clamor for faster service.

Employee Internet Management (EIM) has emerged as an industry to help ensure that Internet use in the workplace is a safe and productive tool. Businesses' first attempts to gather information about employee Internet use have been nothing more than creating block lists -- collections of URLs for Web sites a particular company prohibits its workers from visiting. The problem with relying solely on block lists is that the Internet is so immense and continually growing that it is impossible for companies to maintain an up-to-date and effective list of prohibited sites to achieve even this limited goal.

Block lists have traditionally focused on negative content areas of the Internet--sites containing content companies deem unobjectionable for workplace viewing such as pornography, hate, sex, drugs and weapons. However, according to recent statistics, adult-content and other inappropriate sites make up only five percent of a company's total Web-surfing, leaving an untold number of non-workplace appropriate sites for employees to visit.

Today, second-generation technology has moved beyond blocking, using intelligent analysis -- analyzing the actual content of Web sites - so companies can be better informed as to how the Web is actually being used by their employees. This information can protect companies from legal exposures as well as manage this vital business tool.

Fast Data Technology understands that Employee Internet Management and Secure Content Management have never been more critical or more challenging.

## **The Dangers**

The Internet is a powerful business tool and research resource. It also is a largely unmonitored entity that can be utilized by many for malicious purposes (computer hacking, computer bugs and viruses, etc.). Additionally, corporations risk million-dollar lawsuits due to sexual harassment cases stemming from pornographic or hate material being viewed or passed around their corporate networks.

Fast Data Technology offers FastTracker as a leading EIM solution for improving protection, ameliorating bandwidth issues, and reducing liability and legal concerns.

Inappropriate content viewing is a double burden on productivity. Employees devote time they should be working to inappropriate activities, and such unnecessary Web-surfing clogs network bandwidth, slowing down everyone's productivity. Once a problem appears and the company has taken no steps to protect itself, it then assumes a greater share of the blame and a proportionally larger legal risk may result through inaction.

Thankfully, the Internet continues to evolve as a legitimate business resource. For companies and managers, however, it is no longer just about blocking inappropriate Internet use. In terms of protection and productivity, the question management should be asking itself is, "If only five percent of my Internet traffic is to objectionable sites, then what is the other 95 percent?"

### **A Growing Industry**

According to industry analyst International Data Corp. (IDC), the EIM industry will grow at a compound annual growth rate (CAGR) of 35%, reaching \$740 million worldwide by 2005. According to Frost & Sullivan, who also predicts that companies will spend \$1 billion on Internet monitoring software by 2007.

To help maintain a safe and productive workplace, businesses should look to EIM software. While a valuable tool, the Internet does have the potential to be abused. Industry experts claim employees spend anywhere from two hours or more online everyday. How do you manage the new workplace where the computer is the ultimate employee tool?

The answer is simple -- manage employees in the virtual world the same way you manage them in the real world. Good management is good management, regardless of the medium. Your employees are your company's most valuable assets and should be treated as such. Effective employee Internet management can help businesses get a handle on how they are using the Internet and where corporate Web usage may be vulnerable. At the same time, employees get a resource to help them manage themselves.

At a recent seminar hosted by the Privacy Foundation, the majority of attendees (IT and HR professionals and lawyers) determined that any solution must first be communicated to the employees to include them as part of the solution. Anything else may jeopardize the workplace culture. Providing employers and employees with information about the time being spent online is paramount in maintaining a secure and productive enterprise.

### **The Management Challenge**

Companies run into the challenge of defining business versus personal use. For example, an employee tracking retail sales statistics may need to visit online shopping sites, while a programmer at a financial company probably lacks a valid business reason to be visiting such shopping sites. Companies implementing EIM software should look for a solution that allows them to categorize sites and individually define business versus personal use. Many people view corporate Internet monitoring at work as an invasion of privacy. What's next, hall monitors and scheduled bathroom breaks?

The truth is, PCs equipped with high speed Internet access in the workplace have revolutionized how business is done. Along with offering employees unprecedented speed and convenience, the PC workplace has created new management and security issues that require new tools and a new way of thinking.

## **Good Principles Still Hold True**

Even with the best intentions, businesses implementing EIM can run into trouble if they don't follow a few simple steps:

1. Develop an Internet use policy that matches the corporate culture. This may sound simple enough, but it's an important first step. Most businesses recognize that their employees surf the Internet for both business and personal use. Research conducted by eMarketer suggests that the average worker will spend nearly 2.5 hours online during a day, 12 hours online a week and 50 hours online a month. Out of that time, 31 percent is for non-work-related surfing. The best place to begin is with a grounded understanding of the company's culture that will help define a policy that both management and employees support.
2. Communicate policies to employees. Similar to other HR policies and procedures, communication is key. If employees know what the corporate policy is and understand it, management's job becomes much easier. Likewise, employees can focus on using the Internet productively at work, rather than worrying about getting caught by managers.
3. Engage the employee in the solution. Most companies acknowledge that employees spend time doing personal things at work, online and off. After all, many employees are working longer hours -- the traditional 9-to-5 schedule is becoming a practice of the past. As a result, many employers don't mind if employees conduct some online banking, arrange travel plans or even shop online. Work with employees to determine what's acceptable Internet use at work. Businesses will find that if employees are still allowed to do personal business at work without the fear of repercussions, productive use of the Internet can increase.
4. Provide access to Internet usage reports to both management and employees. Most EIM systems provide usage reports, but usually only to management. To engage employees effectively, look for an EIM system that provides the same information to employees. Such self-monitoring and peer evaluation will free management to focus only on problem cases.
5. Periodically review and discuss proper Internet use with employees. Policies may need tweaking occasionally. Be sure to communicate changes to employees so that there is no gray area.

By keeping a sharp eye on the corporate network and understanding how employees use the Internet at work, businesses can help improve security and productivity without compromising individual privacy. It's a delicate, but very manageable balance.

## **The Productivity Canard**

Some EIM providers promise increases in employee productivity as they limit where employees may surf on the Web. This may sound too good to be true, and it usually is. After all, if an employee wants to slack off, there is no need of a Web connection. It can be done by reading a newspaper, gossiping at the water fountain, or taking long lunches. Good management cannot be replaced by software. However, good software can gather information to help management make better decisions.

## **The Needs of Management**

We see management is having two primary needs. The first is to protect the corporate environment. The second is to inform management and employees.

Protection can be provided in several forms. At the lowest level, access to certain kinds of sites can be blocked. This helps to prevent the entry of such materials into the workplace. The next level protects the company from legal exposures and liabilities created when inappropriate materials infiltrate corporate networks. Protection should also be provided to employees since it is quite easy to enter web sites that could unknowingly jeopardize their Web privileges and even their continued employment.

Information is the second need. Management needs to know how employees are using the Web. This is more than mere blocking of sites. The information tells managers where employees are surfing, how long they surf at given sites, and how much bandwidth is being consumed by the surfing.

Employees themselves need to know this information. The Web is a seductive environment where a few minutes of surfing can soon become hours of idleness. And it is much too easy to wander into inappropriate sites. If employees can get reports on how their surfing is categorized and at times blocked, how much time they are spending, and what their surfing consumes of the communal bandwidth, they are apt to control themselves.

FastTracker is a product of the Fast Data Corporation intended to provide such protection and information. It does this by categorizing the sites visited by users, and by providing detailed reports on usage to both management and individual employees.

## **FastTracker Categorization**

The FastTracker Categorization is based on a patent-pending artificial intelligence (AI) content analysis technique complemented by a URL list of sites. This process begins by consulting a URL list to see this page has been assigned a category previously. If it has not, then the AI technique is applied to analyze the page's text and dynamically assign one of some 60 categories. If the page lacks sufficient text to support categorization, then the page is placed into a catch-all category called Misc.

While the URL list is relatively small compared to the lists of other EIM providers (which are reported to be in the millions), the real measure of the effectiveness of the combination of text analysis and list technologies is the size of the corresponding Misc categorizations. Currently, FastTracker has a Misc percentage of under 6% (as compared to 25% to 30% for our competitors.) The goal is not to have the largest list, a rather hopeless task, but to have the smallest Misc categorizations. Actually, the ultimate goal is to eliminate the URL list altogether, but this is not possible given the nature of web pages.

Misc categorizations are reviewed daily by human support staff to reduce and limit their extent. This has the concomitant benefit of improving the overall quality of the categorizations. The URL List is updated daily. The resulting categorizations form the basis for the reports that are discussed below.

## Artificial Intelligence

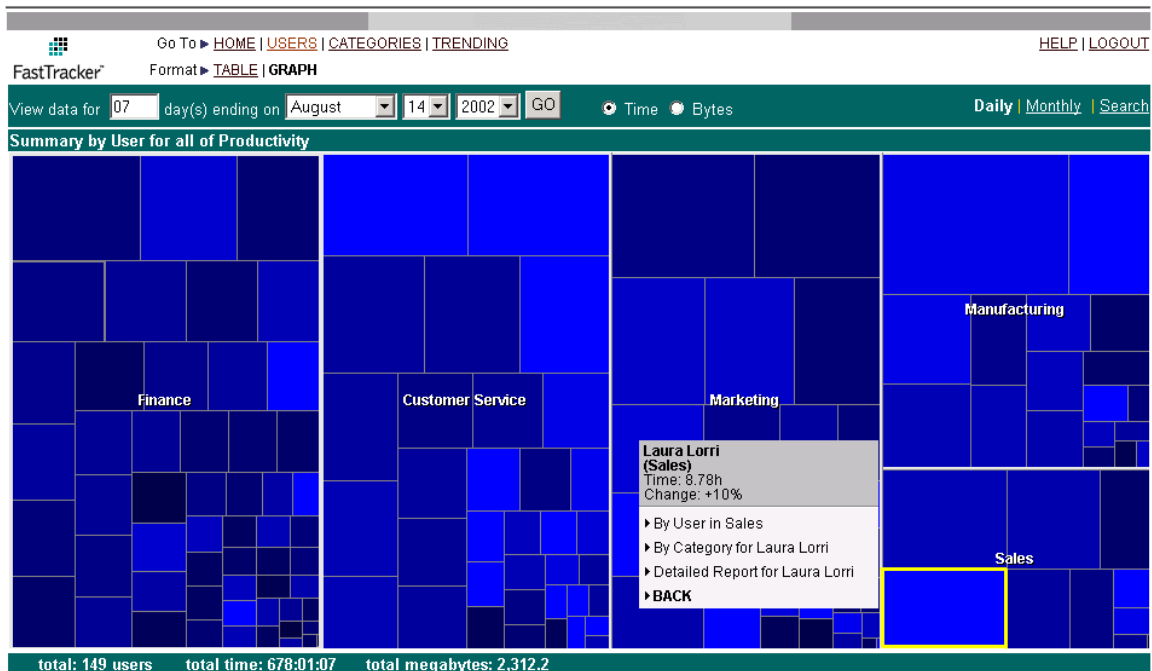
The importance of using artificial intelligence to perform text analysis of web pages stems from the nature of the Web itself. It is a dynamic, constantly changing environment. New sites come on-line every second. Moreover, a vast portion of the web, called the “deep web,” is not even accessible to list-based technologies. These are web pages that are created when they are requested. A list-based EIM product (and almost all of them are list-based) has no hope of dealing with a site that is not on its list, especially those emanating from the deep web. However, FastTracker has a very high probability of determining the nature of the page, even one not encountered before. This is what distinguishes FastTracker from ordinary EIM products.

In summary, FastTracker categorization combines artificial intelligence, list matching, and human judgment to provide the most accurate information for individual users and management.

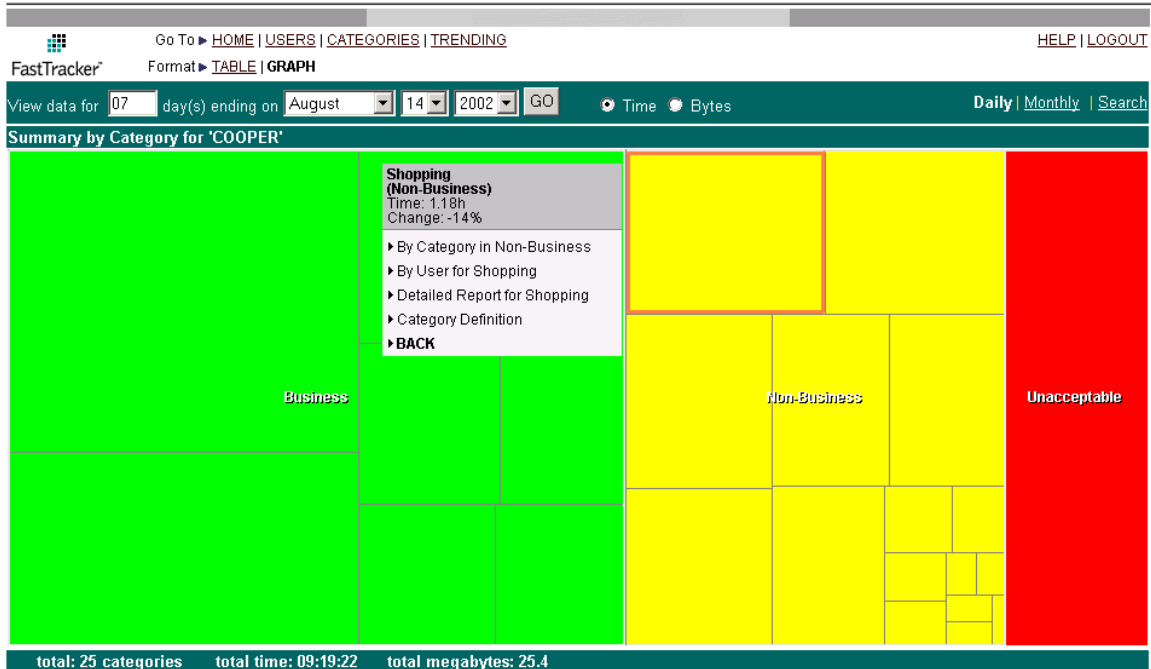
The following describes our easy-to-use reports that provide vital information for management and employees to review.

## FastTracker Reports

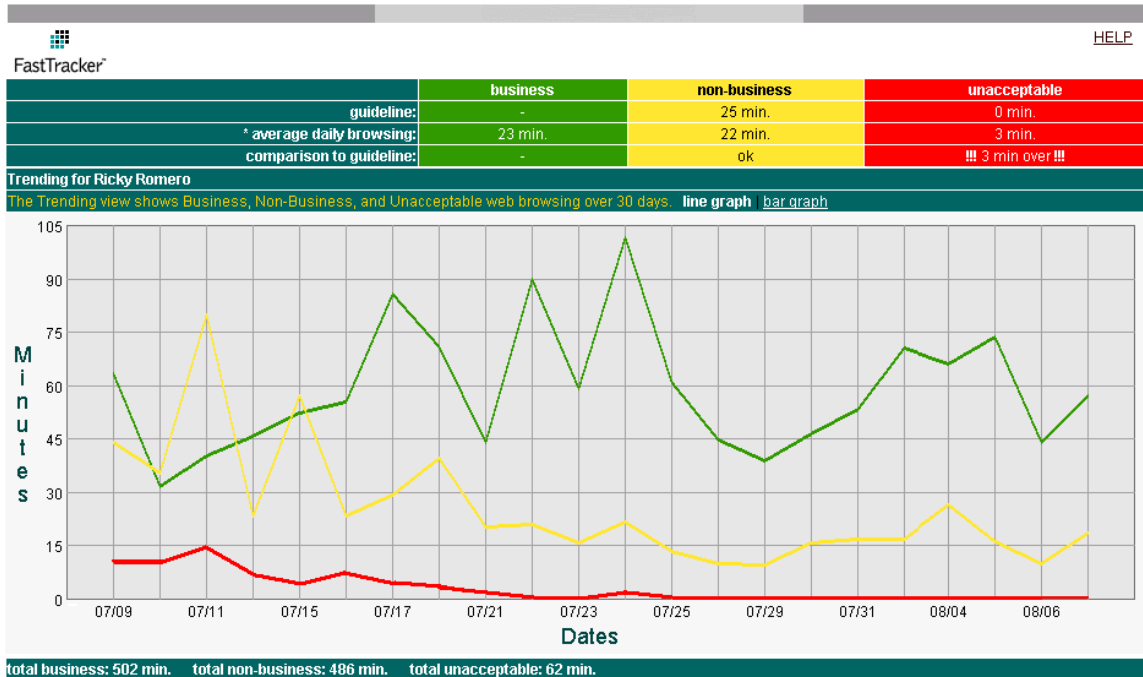
We select just a few of the full range of reports that are available. The first report illustrated below summarizes information by group for management. It provides information of web usage by users as grouped by the company.



Next we see a report on a fictitious individual named Cooper. We see how this individual used the Web for a seven day period. The green area indicates the Business surfing, the yellow Non-Business, and the red the Unacceptable surfing.



Finally, we see a report for an employee that is viewable by the employee.



\* Values for 'average daily browsing' and the trending graph do not include weekends  
Data is for 30 days

These reports provide information for management documenting how the web is being used. They provide a measure of protection for management when making personnel decisions as well as a historical record of where and when employees surf. They provide statistical information on how vital company computing resources are being used and inform decisions concerning equipment purchases. And they provide a measure of protection for employees by guiding them to good web usage.

### **Benefits of Using FastTracker**

This is an Employee Internet Management solution that IT, Executive Management, HR and employees can agree on. It gives the company the protection it needs and the information for management decisions.

Managing the online employees requires new standards, re-engineered procedures, and intelligent information about employees surfing patterns. FastTracker lets you view employee surfing patterns in real time, while making more efficient use of bandwidth. With the intelligence of FastTracker, you can turn employee Internet use into an asset, not a liability.

FastTracker is a sophisticated, customizable tool that IT departments can give company managers and employees timely information to assure reasonable and productive Internet use. FastTracker's easy-to-use, award-winning reports give managers in-depth information about how their teams use the Internet, without frequent support calls to IT.

Since the Web has become an indispensable tool in the workplace, the smart move is to protect your company and employees from its excesses and to stay informed as to how it is being used. FastTracker provides you and your company with centralized reporting, browsing time per category, employee identification by login or by name in reports, superior categorization by real-time artificial intelligence, employee views, delegated policy management, and more.

## **Fast Data Technology's Solutions for all your Secure Content Management needs**

You need to protect your company and your employees. The Internet and email can be powerful productivity tools, but they can also be tempting distractions.

With an artificial intelligence and advanced search technology that roars, Fast Data Technology's products and solutions give you the essential tools you need to protect your company assets and propel you into the future.

### **Email Anti-Spam & Anti-Virus**

- Block & Quarantine Spam
- Up to 98% efficiency
- Award winning anti-virus protection
- Coverage for site-based & mobile workers

### **Custom Text Analysis & Search Technology**

- Text Content Analysis
- Categorization
- Characterization
- Similarity ordering
- Relevance ratings
- Document search & retrieval

### **Internet Filtering & Blocking**

- Easy & complete solution
- Filtering & Blocking
- Simple, thorough reporting of time & bandwidth used
- Employee-view option
- List + Artificial Intelligence
- Easy to install & customize
- Appliance, Service or Software install solutions

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