



Implementing Web-Use Management Software – the Right Way

How HR and IT work together at Wescast Industries

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Introduction

Many businesses and government organizations use Internet monitoring software to help them manage their employees' visits to Web sites. Typically, they do so to prevent productivity losses and avoid costly lawsuits, both of which can result from at-work surfing.

This case study examines the approaches used by one company that's doing this successfully, i.e., Wescast Industries, a Canadian industrial firm.

The study begins with a brief summary of the approach that Wescast employed to select its chosen software, Cyfin Reporter. Then, in a bit more detail, it focuses on the approaches the company is using to implement that software and the Web-use management program it supports.

Note: An earlier study examines Wescast's approach to the selection of Cyfin Reporter in more detail. See <http://www.wavecrest.net/editorial/archive.html>.

Before proceeding, let's take a quick look at Wescast Industries itself.

About Wescast Industries Inc.

Based in Ontario, Canada, Wescast Industries Inc. is the world's largest supplier of cast iron exhaust manifolds for passenger cars and light trucks. With approximately 2,000 employees (1,600 with Internet access), the company operates seven production facilities in North America and three sales and design offices in North America and Europe.

Wescast's corporate culture is based on teamwork and employee advancement. As stated on their Web site: "We have in place a unique culture of teamwork based on employee participation called 'HEART' – Helping Everyone Achieve Rewards Together ..."

In that context, and with respect to Internet monitoring, the company states, "Wescast has a philosophy of empowerment, communication and competency that makes people the organization's greatest asset: That philosophy is dependent upon the principles of shared knowledge, shared experience, shared objectives and shared technology. Almost everyone at Wescast has access to the Internet and the company's own intranet. They have the ability to browse customer, supplier and competitors' Web sites. Communication has never been easier."

To help govern that communication, Wescast has an "Acceptable Use Policy" (AUP) prescribing the "do's and don'ts" of Internet usage. All employees must read and sign off on the AUP before they are granted a LAN account that lets them access the Internet. As it does in most efforts, Wescast used a collaborative approach to produce a policy that is well balanced and fair to all concerned, and its HR and management personnel work hard to ensure that it's communicated clearly to the workforce.

*Wescast Industries
implemented a successful
Web-use management
program by getting input
from HR, IT and management.*

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Figure 1 illustrates that approach. As indicated, representatives of management, HR and IT are all involved in the development of the policy and its dissemination to the workforce.

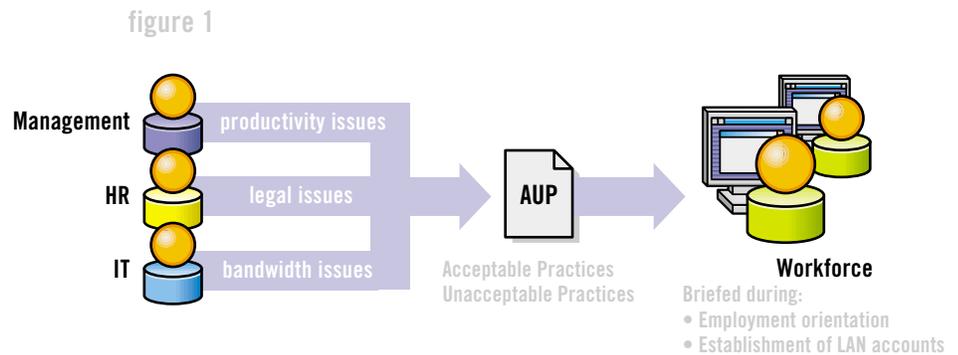


Figure 1: Wescast uses a collaborative effort to develop an effective AUP

At Wescast, HR took the lead in developing an AUP and coordinating the company's Web-use management program.

While the AUP is well-written and equitable and is communicated clearly to the employees, Wescast management knows that Internet usage still needs to be monitored and managed carefully to ensure that it:

- > conforms to the AUP
- > is as productive as possible
- > does not jeopardize network security or performance
- > does not create any legal liability problems.

To perform the monitoring function effectively and efficiently, Wescast's HR, IT and management personnel need accessible, actionable information that accurately depicts the workforce's Internet usage activity. And in today's world, that means software.

Let's start with a brief review of how Wescast selected its software.

Selection of Cyfin Reporter for Web-use Management

In early 2002, Wescast management established a multi-discipline team to select a cost-effective, policy-based Internet monitoring software package. They assigned Rebecca – an HR Generalist – to lead and coordinate the effort, and they assigned Mick – an Information Systems Specialist – to provide primary technical support. Management personnel also contributed to the effort.

At Wescast, assigning Rebecca the lead role was quite natural. That's because HR is closely involved with – and provides guidance to – workforce leaders in matters pertaining to employee behavior or policy violations.

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One of the first things the team did was to establish specific goals and requirements for the software package. Again using a collaborative approach, all concerned parties contributed to this effort. Figure 2 illustrates this approach.

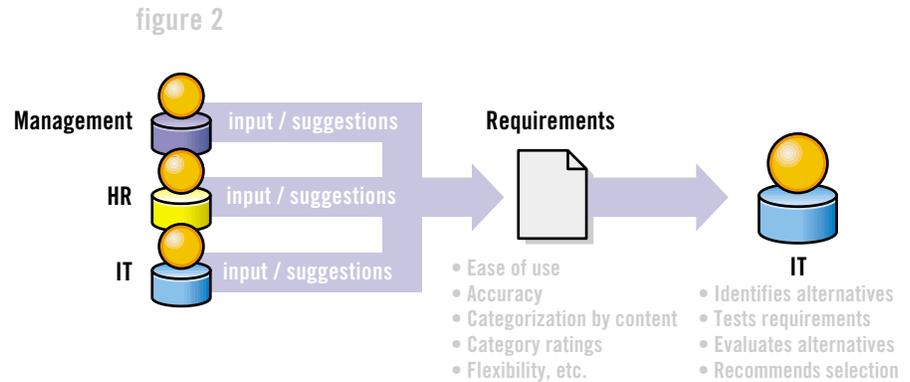


Figure 2: Key Wescast personnel collaborate to develop software requirements

Together, HR and IT developed a list of requirements for the software solution they needed to support and enforce their policy.

In terms of requirements, the team decided that the software had to be able to:

- > Quantify and sort Web-use activity into categories by content, i.e., shopping, news, pornography, sports, financial, Web email, hate and crime, etc.
- > Let Wescast rate the categories as to acceptability, i.e., conformance to policy
- > Enable Wescast to group its users by location so that separate, compartmentalized reports could be created for each location
- > Produce reports that could be easily read and interpreted by HR and other personnel who are not IT professionals
- > Provide an indication of bandwidth consumption
- > Integrate smoothly with existing systems
- > Enable reports to be distributed by email
- > Enable HR personnel to create both scheduled and manual reports in summary-level and detailed formats with minimal or no assistance from IT

The last requirement in this list was particularly significant. Meeting it would relieve Mick and his Information Systems colleagues of virtually all responsibility for report-generation except related technical administration duties. This was considered a very desirable objective. Why? For some time, Mick had been responsible for manually generating Web-use reports with existing software that was not designed for that purpose.

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As illustrated in Figure 3, this was proving to be an onerous and time-consuming task – taking 1-2 hours per report – that produced results that were considerably less than satisfactory.

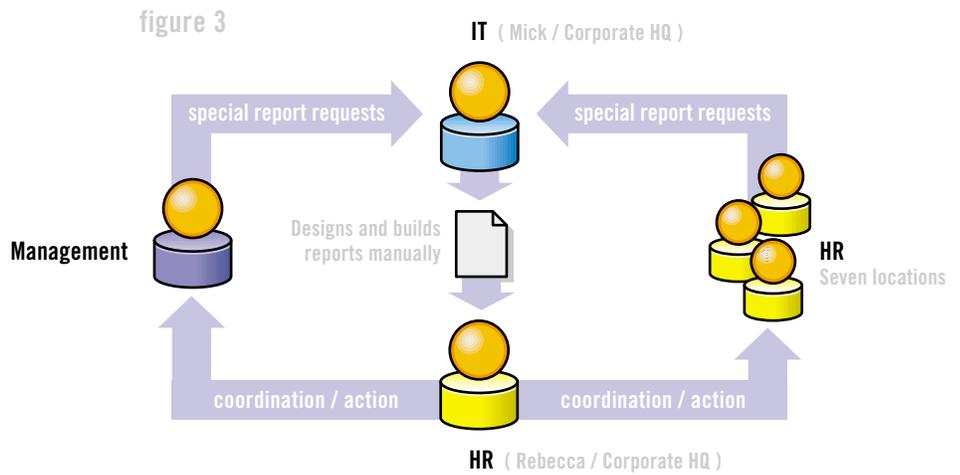


Figure 3: Wescast's initial approach to report generation

*"Cyfin was the only product that matched all the requirements I was looking for...the system needed to be easy to use, work with Active Directory, separate users based on facility, allow reports to be scheduled and allow HR to take on a more visible role in the reporting and analysis of Internet usage."
— Mick, Wescast IT*

Once the team had agreed on requirements, Mick began the search for an optimal, cost-effective solution. It took him two months of hard effort and extensive testing before he found the right one – Wavecrest Computing's Cyfin Reporter product – which he then rigorously evaluated.

Here's what Mick had to say after evaluating Cyfin:

"I tested at least a dozen products before being introduced to Cyfin. I spent a lot of time working with other vendors' sales and support staff trying to make their systems do what Wescast required. I can honestly say that all the vendors tried their best to assist me, but sometimes you cannot make systems do something they were not meant to do. I wish I had known about the Cyfin product from the start. The description alone would have steered me towards it first and I could have saved a lot of time."

The other members of the team were also impressed. Rebecca and several plant leaders (line managers) reviewed a number of sample reports and agreed that they met their needs and were easy to read. Again, here's what Mick had to say:

"Cyfin was the only product that matched all the requirements I was looking for. HR had set a guideline for what they wanted, and I had my own requirements since I am the one currently running reports with another product. The system needed to be easy to use, work with Active Directory (A.D.), separate users based on facility (location), allow reports to be scheduled and allow HR to take on a more visible role in the reporting and analysis of Internet usage."

So, Cyfin was selected, installed and deployed. This is where we pick up the story.

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Internet Monitoring and Management at Wescast

As of this writing, Cyfin has been operational at Wescast for a little more than a year. So let's see how Rebecca, Mick and their colleagues have used it to support their Web-use management efforts during this time. We'll start by looking at some of the broader organizational and managerial issues related to the effort. We'll then focus in more closely on the software itself and see how it's used for day-to-day and week-to-week reporting. Lastly, we'll take a look at how well Cyfin is doing its job, see how it has benefited Wescast, and wrap up with a few conclusions.

Note: The main body of this paper focuses on product usage and functionality. Technical considerations are discussed in Appendix "B".

Organizational, Policy and Managerial Issues

Wescast's Internet monitoring program allows them to identify unacceptable Web use so that HR, IT, line managers and other responsible personnel can take necessary corrective action early on.

Wescast's 1,600 Internet (and intranet) users are located in facilities around the world. Among these facilities are: corporate headquarters in Brantford, Ontario; five plants in Ontario; one plant in Georgia (USA); one plant in Hungary; and sales and design offices in Canada, Michigan (USA), the UK, France and Germany.

As mentioned earlier, to ensure that Internet and intranet activity is acceptable and productive, HR and managerial personnel inform the employees in detail of the various provisions of the company's Acceptable Use Policy (AUP). This is done proactively during employment orientation and again during departmental briefings. And, as previously mentioned, employees are not given LAN accounts until they have read the policy and signed off on it. Employees are also made aware that their online activities are being monitored.

To monitor Web activity in an effective yet reasonable manner, Wescast has established a company-wide Web-use management program. Coordinated from corporate headquarters, its overall objective is to identify any instances of unacceptable Web-use activity so that HR, IT, line managers and other responsible personnel can take necessary corrective action early on. At Wescast, unacceptable activity consists of visits to Web sites in the following categories: Pornography, Chat, Download Sites, Email, Games, Hate & Crime, Public Proxy, and Tasteless. All other categories are considered to be neutral or acceptable.

As mentioned, the focal point for the company-wide monitoring effort is located at corporate headquarters. From there, Rebecca coordinates the overall effort and provides the information and assistance needed by the HR managers and other officials to perform their monitoring, reporting and follow-up functions.

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This approach is depicted in Figure 4 below.

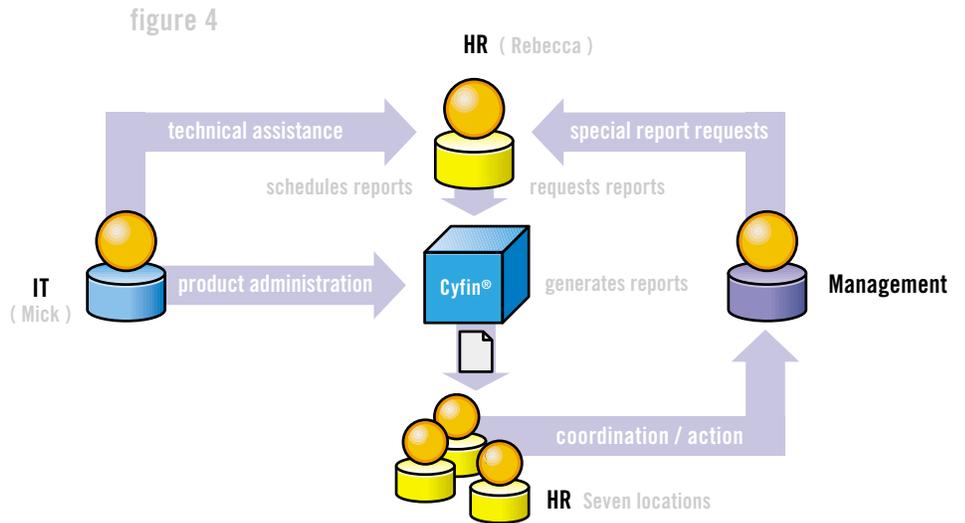


Figure 4: HR coordinates the overall Web-use management effort

To manage the total effort efficiently, Wescast has subdivided the corporation’s user population into seven groups. Each group represents a major location or organizational element. And each group’s Internet activity is overseen and monitored by a Human Resources (HR) manager. These individuals interface and coordinate with line managers and other personnel as needed. And, when necessary, they coordinate with Rebecca on policy interpretation matters.

The HR managers’ main tool is information provided by Cyfin reports, as discussed in more detail in the next section.

At Wescast, Cyfin is viewed and used as one element in an overall policy-based Web-usage management program. Other elements include the AUP itself, workforce education, Internet filtering (to prevent use of unauthorized email sites), and management participation and follow-up.

At Wescast, Cyfin is one element in an overall policy-based Web-usage management program. Other elements include the AUP, workforce education, limited Internet filtering and management participation and follow-up.

Web-use Reporting: Specific Approaches

With the above objectives in mind, let’s take a look at how Wescast is using Cyfin to monitor and manage its employees’ Web-use activity.

Screening the Activity. As a first step, Rebecca has scheduled Cyfin to run a location-specific Unacceptable Activity report automatically for each responsible HR manager on a weekly basis. Designed to identify inappropriate activity efficiently, the Unacceptable Activity Report is a high-level summary used for initial screening purposes.

You can see a sample Unacceptable Activity Report in Appendix “A.”

For each of the unacceptable categories cited earlier, e.g., Pornography, Chat,

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etc., the report lists the users that visited sites in that category. For each listed user, the report shows total visits in the category but not the individual sites that the users visited. (Individual sites are identified in drill-down reports, discussed next.)

Drill-down Reports. The HR managers receive their weekly reports automatically via email and review them for any suspicious activity. Typically, such activity would appear as excessive visits by an employee to sites in an unacceptable category. If such activity is noted, the HR manager requests Rebecca to generate a User Audit Detail report, i.e., a report that lists all URLs visited by one employee during the covered period. Used for in-depth analysis and investigation, approximately ten of these reports are requested each week.

HR managers receive weekly "Unacceptable Activity" reports via email automatically. If suspicious activity is noted, "User Audit Detail" reports may be requested.

Other reports are also used as required. In fact, one plant location has scheduled an All User Summary Report to be run on a daily basis. This top-level, summarized, quick-look report shows the total number of Acceptable, Unacceptable and Neutral visits made by each user at that location. In another example, Category Audit Detail reports are requested and run occasionally on an ad hoc basis. This particular report can be used to precisely identify activity in a specifically designated category, e.g., Employment Sites.

Custom Categories. Mick has created a custom category labeled "Security." Wecast uses it to identify any employees' visits to "hacker-tool" sites.

Follow-through. If and when any of the monitoring efforts reveal suspected problems, Rebecca and the HR managers collaborate and work with appropriate line managers, production supervisors, IT security personnel, union leaders and other responsible officials to conduct investigations and resolve any issues. Examples of such issues include:

- > Policy-violation allegations or investigations
- > Considerations of disciplinary action or termination
- > General assessment of overall Web activity
- > Workforce-related issues (training, communication, intranet usage, self-service issues, etc.
- > Possible policy revisions

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Depicted in Figure 5 below, this collaborative effort is a continuous improvement effort, with the feedback from the reports prompting various preventive and corrective actions.

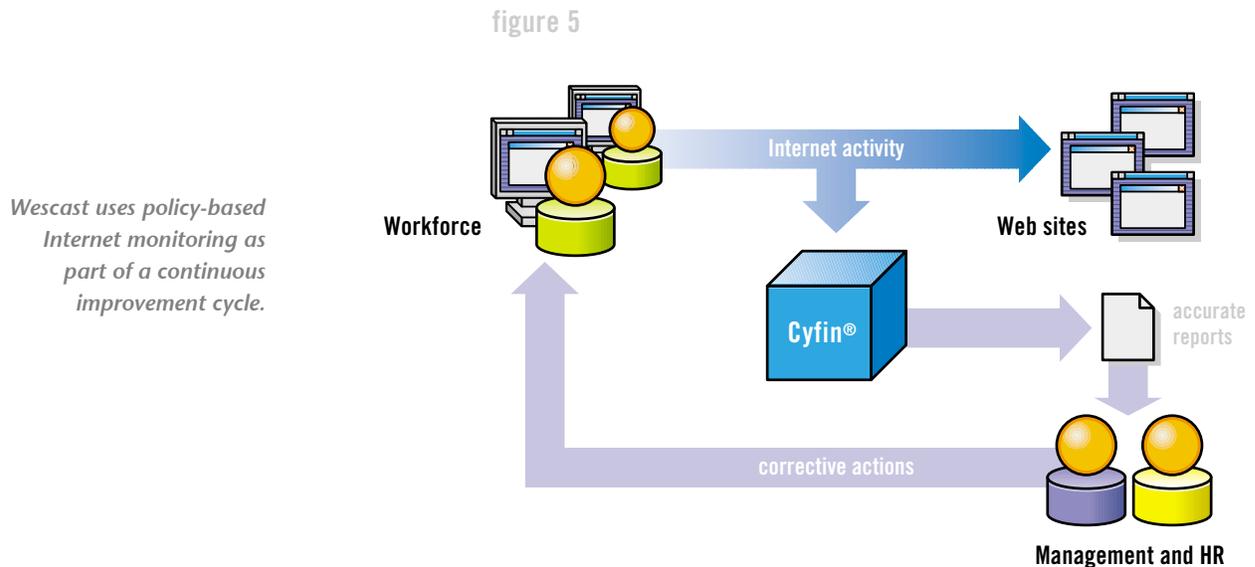


Figure 5: At Wescast, Web-use management is a continuous improvement process

Depending on analysis of the reports and results of follow-up investigations, the HR managers and their colleagues may:

- > Counsel employees about policy violations
- > Initiate disciplinary action
- > Brief management on problem areas
- > Request Mick to block certain sites, e.g., unauthorized email sites
- > Suggest improvements to the AUP

Note: Wescast has disciplined or terminated employees based on Cyfin information, but only after thorough investigation. Incidentally, this is the approach that Wavecrest recommends to all of its clients. That is, Wavecrest recommends that customers use Cyfin to identify suspect areas but then follow up with a detailed investigation before taking action.

Now that we have an idea of how Cyfin is being used at Wescast, let's see how well it's doing its part.

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Cyfin's Performance on the Job

Rebecca and Mick report that Cyfin's performance on the job has been very satisfactory to date. In this regard, let's take a brief look at some of the areas in which it has helped them and their colleagues.

*"I used to spend 1-2 hours per report when asked to provide details on a user's Internet activity. HR handles all of this now."
— Mick, Wecast IT*

HR's Reporting Responsibilities. Cyfin has enabled Rebecca and her colleagues to relieve Mick of virtually all of the burden of generating routine reports. When asked about this, Mick replied:

"Yes, HR is solely responsible for reporting. I only provide technical assistance for Cyfin and proxy systems. Since implementing Cyfin, I have only been called in when HR required in depth investigation of abuse. I used to spend 1 – 2 hours per report when asked to provide details on a user's Internet activity. HR handles all of this now and I do not even hear about the reports any more! Monitoring the Internet usage at Wecast has become the responsibility of Human Resources."

Cost Savings. The dollar savings represented by this change is but one example of how well designed Internet monitoring software helps the bottom line. Other savings, potentially much greater, can result from the software helping management switch non-productive surfing hours to productive effort.

Provision of Critical Information. When asked what types of Cyfin information she and her colleagues have found to be particularly important, critical, and/or useful, Rebecca answered:

"Indications of personal surfing in especially inappropriate and/or potentially dangerous areas, e.g., pornography, hate and crime."

Unauthorized Email Activity. Cyfin has helped curtail the use of unauthorized email sites, e.g., Hotmail – a major concern at Wecast. Mick takes action to block such sites as they show up in the Unacceptable Activity Report.

Assurance of Accurate Data. Cyfin is accurate, due in part to Cyfin's ability to segregate true "visits" (human activity) from "extraneous hits" (unsolicited, computer-generated activity). Rebecca and Mick both consider this to be very important.

Categorization Percentage. At Wecast, Cyfin has achieved a visit-categorization rate of approximately 80 percent, a level that is above average for Internet monitoring software. Rates higher than this are virtually impossible to achieve because of the vast size and rapid growth of the Web.

Note. "Categorization rate" is the percentage of visits that are successfully identified and categorized by content, i.e., pornography, shopping, news, sports, etc.

Useful Features. When asked what he considered to be Cyfin's three most useful features, Mick responded from his perspective as follows:

"(1) User grouping was a key seller for us. (2) Also, customizing categories and defining reports that give us what we need to see is important. (3) Also very

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useful is the ability to offload reporting to HR, the department that is ultimately responsible for monitoring the usage and dealing with abuse when it occurs.”

Network Performance. Cyfin has had no negative impact on network performance, e.g., speed. Mick has helped ensure that this is the case by setting up all scheduled reports and log transfers to occur in the evening when traffic is at a minimum.

Technical Support. Mick has only had to call Wavecrest tech support once in the past year. He indicated that the support was “very responsive and competent.”

Ease of Administration. Summing up his experience to date – from a technical point of view – Mick indicates that “Cyfin is easy to administer and update, and it has been trouble-free so far, with only minor issues.”

According to Wescast, Cyfin has helped prevent situations that could lead to legal liability, improve network security, reduce the effort required to create and analyze reports...and more.

How Cyfin has Benefited Wescast

Wescast has benefited from using Cyfin in a number of ways. According to Rebecca and Mick, Cyfin has:

- > Helped prevent situations that could lead to legal liability
- > Produced information to substantiate disciplinary actions
- > Helped conserve bandwidth and improve network security by identifying email sites to be blocked
- > Provided more accurate reporting of Web activity
- > Reduced the effort required to create and analyze reports.
- > Reduced IT’s involvement in Web-use management to technical troubleshooting.

The last two benefits contribute to Cyfin’s ROI (Return on Investment).

Conclusions

Based on Rebecca’s and Mick’s comments, Cyfin is meeting all requirements and working out well for Wescast. In the author’s view, three factors have made this possible. The first is Wescast management’s emphasis on – and use of – collaborative approaches throughout the planning, development and implementation of their overall Web-use program, including deployment of the Cyfin software. The second is the skill of the key personnel involved, i.e., Rebecca and Mick. They obviously did a highly effective, professional job of setting up the overall Web-use management program, choosing an optimum software tool, and implementing that tool in the real world. The third factor is Cyfin’s design. Cyfin is designed specifically for the type of requirements found at Wescast, i.e., the need for flexible, accurate, policy-based Internet monitoring.

In addition, comments from employees, union representatives and HR personnel indicate that Cyfin is getting the job done with no adverse effect on morale. This is noteworthy because the relationship between management and employees has

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The ongoing success of Wescast Industries' Web-use management program demonstrates the importance of collaboration and communication - between HR, IT, management and employees – throughout all phases of planning, development and implementation.

always been one of mutual trust and respect, and implementation of a monitoring program could have seriously undermined that relationship. Thanks to skillful and sensitive management, that didn't happen. .

The ongoing success of Wescast Industries' Web-use management program demonstrates the importance of collaboration and communication - between HR, IT, management and employees – throughout all phases of planning, development and implementation. The continued effectiveness of the program also depends upon the support of a policy-based Web-use management software tool like Wavecrest Computing's Cyfin Reporter, which ensures accuracy of data, flexible reporting options, and ease-of-use in manager-self-service. The bottom line? Wescast Industries' program is a model for any organization that wants to manage employee Web-use equitably, effectively and efficiently – while maintaining a positive corporate culture for managers and staff.

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Appendix A: Sample Unacceptable Activity Report

Cyfin's "Unacceptable Activity" report indicates total visits for each user who visited sites in a category rated "unacceptable."

Wecast uses Cyfin's Unacceptable Activity report as its primary tool to assess levels of undesirable or potentially dangerous surfing activity. A sample report with fictional data is shown on the following page. Note that the report has a section for each subject matter category classified as "Unacceptable." Within each section, the report indicates total visits for each user who visited sites in that category. At Wecast, unacceptable categories include Pornography, Chat, Download Sites, Email, Games, Hate & Crime, Public Proxy, and Tasteless. All other categories are considered to be neutral or acceptable.

As mentioned, the report lists the users that visited sites in each unacceptable category. However, it does not identify the individual sites that the users visited. Individual sites are identified in drill-down reports, e.g., User Audit Detail and Category Audit Detail.

See "Sample Report" on the following page.

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Appendix A (Fig. 1): Sample Report

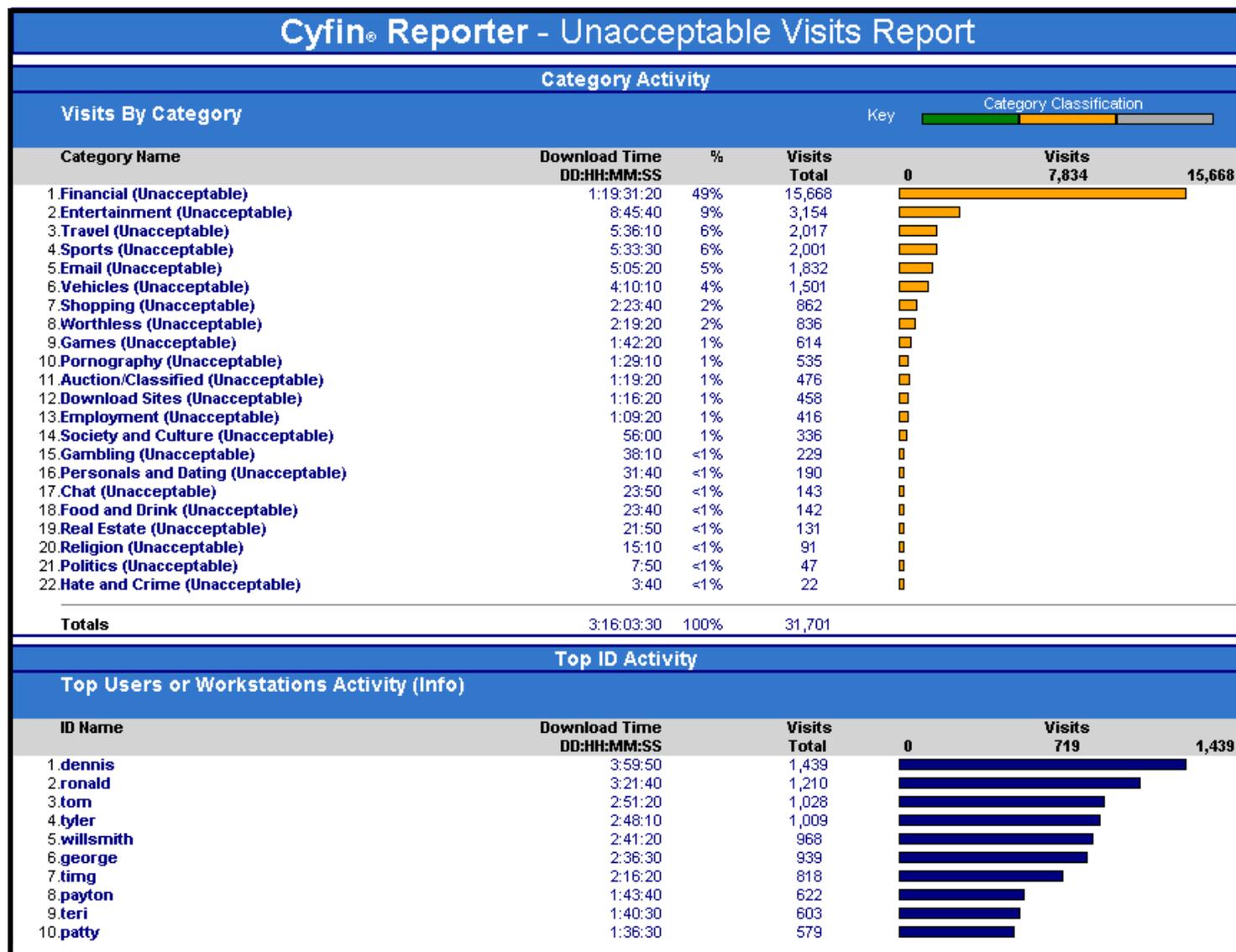


Fig 1: An excerpt from a sample Unacceptable Activity Report showing Category Activity and Top User Activity by ID, using fictional test data.

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Appendix B: Technical Considerations

This appendix provides a brief technical discussion of how Cyfin was integrated into and functions in Wescast's network environment.

First, some background. Wescast provides Internet connectivity for all of its Ontario-based locations (1600 users) through a central Internet connection located at the corporate office in Brantford, Ontario. Cyfin is installed at the Brantford location.

At Wescast, Cyfin has been configured to automatically download updates to the product's categorization list on a weekly basis.

From a technical perspective, corporate employees in Ontario, Michigan, Germany and the UK are considered one "user group." Each of the five Ontario plants is designated a unique user group, as is the facility in Georgia.

Each of the four "locations" has a proxy server. On a daily basis, all of them forward their log files to the Cyfin server at Brantford using FTP scripts, but each proxy's logs are given a unique name.

Using a custom WSH script that runs automatically every Sunday, Cyfin imports user profile data from Wescast's Active Directory service. The purpose is to update the user population groups (users are grouped by location). Mick indicates that this is "quite easy to do."

Cyfin has also been configured to automatically download updates to the product's categorization list on a weekly basis.

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