Compliance Training:

The Reality of Tracking e-Learning Completions

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Introduction

Compliance training is *not* typical training. The stakes are generally higher and the program is almost always more visible across the organization. Failure to implement state and federally mandated compliance policies can result in serious consequences for organizations. Harassment, workplace ethics and other forms of corporate compliance training help employers avoid conflicts that can result in expensive litigation—damaging to companies and individuals alike. When completion of compliance training is a legal requirement, organizations must make certain that they are collecting and recording data accurately and completely. Online compliance training can provide a consistent, cost-effective tool for distributing necessary compliance training, and effective data tracking for measuring completion.

e-Learning provides multiple benefits when deploying compliance training. Organizations are able to reach a large, geographically dispersed employee population with a consistent message in a relatively short time frame. Training is accessible around the clock from any web-based computer, allowing learners the flexibility of taking training when and where it's most convenient for them to learn. Perhaps most importantly, automated tracking and reporting of course completion enables organizations to more easily demonstrate compliance. Although e-Learning provides many advantages, it also raises the level of expectation in the accuracy of tracking and reporting. Unlike classroom training, where an instructor can record attendance and participation, e-Learning courses are generally not proctored. Instead, they rely on the effectiveness of the technology and appropriate user behavior to properly record completion.

The reality of an e-Learning compliance program is that issues of completion will arise. Learners will claim completion while reports from your learning management system will have no such record. In most e-Learning programs, a minimum of 1-2% of the learner population will experience some form of complication related to completion tracking. However, it is not uncommon for this number to climb to 10% or higher in situations where planning, testing, and rollout were not thorough. While a 1-2% failure rate might be statistically acceptable (and manageable), if the problematic population contains high-profile users such as senior management, "statistically acceptable" may not be good enough.

There is rarely a single, systemic problem at the root of the inaccuracies. Generally, there are multiple factors and issues that lead to discrepancies in completion reporting. This diversity makes troubleshooting a challenge. Ultimately, however, the learner believes he has done what was expected of him. This can lead to mistrust of the training, the technology, and ultimately the program itself. For this reason, it is important to understand that delivery and tracking of e-Learning compliance can be highly successful when measured against training effectiveness, cost, and speed of delivery, but even a highly successful program will still have a small percentage of learners that have inaccurate completion data. To establish the strongest possible foundation for the success of your e-Learning program you should:

- Set proper expectations with learners and management regarding the benefits and challenges of e-Learning-delivered compliance training.
- Technologically prepare your organization to avoid issues.
- Educate learners on the proper use of your learning management system and compliance content.
- Understand the causes of inaccurate completion tracking and develop a plan of action to resolve problems when they occur.

This white paper will provide the information to assist you with these tasks. Section 1 discusses some of the more common problems, while Section 2 provides recommendations to help minimize the impact on your compliance-training program.

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Section 1: Compliance Tracking Issues

Virtually all reasons for inaccurate tracking of completion can be categorized into one of four areas:

1. Learning management system design
2. Content design
3. Technology configuration
4. User behavior

Each category presents unique challenges and requires that you work with staff and management across your organization to educate them and prepare your systems and learners to effectively execute your compliance-training program. If you have vendors providing some portion of your training program, whether it's customized content, an enterprise learning management system, or outsourced administration, it is important to prepare them in the same way you prepare your internal organization.

LEARNING MANAGEMENT SYSTEM DESIGN

AICC/SCORM Compatibility

Learning management systems (LMSes) come in many shapes and sizes, all with their own strengths and weaknesses. If you are serious about your e-Learning compliance program, make sure your LMS takes completion tracking seriously. AICC and SCORM are fine specifications for facilitating the communication of tracking data between content and LMS, but they are only as good their implementations. An incomplete or flawed AICC/SCORM implementation in an LMS is often difficult to recognize and is generally one of the last places investigated when there is a problem. Compliance or even certification of your LMS with these specifications may not guarantee compatibility with your content. Understand the techniques and technologies used by the LMS in its AICC/SCORM implementation so that you and your IT team can anticipate potential issues.

Session Management in Web Applications

In the world of web-delivered training, there may be no bigger issue affecting tracking data accuracy than application session management. *Application sessions* are a common practice of web applications that present customized pages (e.g., a personalized catalog, messages, etc.) to a specific, known user. When you log in to a web application (such as an LMS), information about you and your browser are stored on the server as a *session*. This session is used to manage your experience while you are using the application. Problems arise when the session information on the server or the browser is deleted, with the most common causes being server timeouts and browser windows being closed. Without an active session, any information sent to the application (e.g., from a compliance course in your browser) will be lost because the server can no longer identify you. There are different ways to manage sessions, none of them are necessarily wrong, so it is important to understand how your LMS manages them. Specific examples of session-related problems will be discussed later.

COURSE DESIGN

Communicating Progress and Completion Information

While a course may be able to effectively deliver training material to a learner, compliance courses must also effectively communicate completion information to the LMS. As mentioned earlier, AICC/SCORM enables this communication. Proper implementation of these specifications within the content is more critical than within the LMS because the content is responsible for presenting information to the learner when the process fails. There are many different types of problems that can be introduced with each unique AICC/SCORM implementation. More important is the need for *your* content to properly communicate with *your* LMS. Neither may be the most robust implementation of AICC/SCORM, but if they are properly and reliably communicating progress and completion, you're ahead of the curve.

Error Handling and User Notification

A very common problem with AICC/SCORM implementations in content is limited (or missing) error handling and reporting. Here is an ideal state example:

You complete your compliance course and click Exit or the Close button. Using SCORM, the course attempts to save your progress. It sends a message to the LMS but the LMS, for whatever reason, is unable to record your data. This failure is reported back to the course and the course presents a message informing you that progress data could not be saved.

Many content developers don't report these issues back to the user. Although you, as a learner, won't be happy that your progress was lost, at least you know what actions to take (restart and complete the course again) if you are informed of the problem. The alternative, no error message, means that from your perspective, you've completed the course. Somewhere down the road, however, you'll receive an email from a training administrator informing you of your non-compliance. Which do you think most users would prefer?

Communicating Completion Requirements to Users

An obvious, but often overlooked, requirement for any course is to clearly inform the user what actions she must take to complete the course (e.g., must complete final test with a score of 80% or greater, must complete all course activities, must touch every page of content, etc.). Beyond the LMS tracking, you may also have a manual process for record keeping, such as delivering a printed completion certificate to your Human Resources department. It's not unusual, with content being developed internally and licensed from multiple vendors, for users to see a different course interface every time they take mandatory training. It seems to be a common practice for content vendors to assume their content is intuitive with regard to what actions are needed to achieve completion. In practice, it's likely that the user will not fully understand what is required and will often not officially complete the course as a result. Make sure all completion-related activities are clearly communicated to users prior to delivering the training, ideally as the first page of your course.

TECHNOLOGY CONFIGURATION

Existing technology infrastructures can provide standard organizational services without fail. However, these same infrastructures could fail to provide the necessary support for an enterprise-wide e-Learning program. As stated earlier, it's important to understand the technical requirements and fundamental operation of your LMS and content. For example, if your content requires Java support and not all users have a Java Virtual Machine (JVM), users will be unable to load, let alone complete, their training. Know your content, know your LMS, and have open discussions with your IT team prior to rolling out the training to avoid situations where your technology cannot support your training needs.

Network Configuration Issues

There are typical network concerns that will probably be voiced by your IT team, as second nature, when asked how they can support technology-based training. *How much bandwidth do you need? What locations need access? Are there remote users?* While these issues should be considered, it is unlikely these will cause completion-tracking problems down the road. The real danger lies in the nuts and bolts of the network. Details such as proxy server session timeouts, HTTP request timeouts, and other less commonly evaluated network settings can sometimes interfere with the basic communication between content and LMS. The technology used by the LMS and course may be outside the normal traffic profile that your network supports. While it's not often that basic network settings are a root cause, when they are, they can be very difficult to resolve if your IT team is not open-minded and willing to troubleshoot the issue.

Desktop Configuration Issues

The configuration of your learners' computers can have a very direct effect on the successful completion of their training. Issues can reach across your organization or be isolated to small groups or even individuals. It might be an issue with your custom browser installation or a problem with a specific version of a media player such as Flash.

The best example of this is one of the most common causes for non-completions. It is a tool used by most people to simplify their web experience: a pop-up blocker. Pop-up blockers by Google, Yahoo!, and Microsoft not only squash those annoying pop-up ads, but they can also interfere with the common practice of using hidden windows to pass data between course and LMS.

The most effective way to identify and manage technology issues is to test. Just because the course plays and tracks as expected on a few machines in the training department doesn't mean a deployment across the organization is going to be error-free. Ask your IT team for help in selecting appropriate test users and creating a test plan.

USER BEHAVIOR

Mandatory compliance training puts people on edge. Once you've had enough experience with it, you might even say that the learners are a hostile audience. The messages delivered with compliance training are often firm and unforgiving. Understanding the learners' frame of mind when they begin their training is important to understanding the potential problems they may face when taking the course.

Profile your typical learner. Is he familiar with your LMS application? How often has he taken training? Is he comfortable using a computer? The answers to these questions can give you insight into the types of pitfalls that could precipitate an unsatisfactory experience or, worse yet, one that results in inaccurate tracking data.

If learners are inexperienced, specifically with your LMS, provide as much support and guidance as possible. For example, a typical combination of poor course design and user behavior results in the *"What are all these windows?"* syndrome. Some content is designed to open multiple browser windows. A common learner reaction to this is to start closing windows to reduce clutter. Next thing you know, he has closed the window that facilitates the communication between content and LMS. If there's no window, there's no tracking data being exchanged.

Another typical scenario has a learner starting the course and then leaving for a meeting. When she returns, the course window is still open so she continues the course. In a worst-case scenario, the LMS session has ended due to the length of time the learner has been inactive, preventing the course from saving progress. The course never reports to the learner that her progress was not saved. The learner believes, and rightly so, that she finished the course. The LMS doesn't have any record of the completion.

It is impossible to anticipate how every learner will interact with your LMS and course, but understanding how your typical learner behaves is important when rolling out training to the entire organization. You might consider different delivery methods or even different versions of the course based on the different learner profiles within your organization.

Section 2: Best Practices

The previous section discussed the causes for inaccuracies in compliance completion data. These causes can sometimes be complex and intertwined, requiring days or even weeks of data analysis and troubleshooting to identify and resolve. The end result is a loss of faith in the program from management, disgruntled employees, and an overall black eye for the training program.

This section contains a series of best practices to assist with your development of both a strategic vision and a tactical plan for the delivery of an e-Learning compliance program. Proper preparation will improve your program's chance for success and help ensure the most efficient and accurate collection of completion information.

VALIDATE YOUR LEARNING MANAGEMENT SYSTEM

Work closely with your learning management system provider to evaluate the features and functions of the systems that support the tracking and reporting of compliance training. Don't forget the reports. As important as collecting the data is, if the reports are not meaningful to you and your organization, then the system is not meeting your needs.

The following is a list of items to consider as part of your validation process:

- Ask if the LMS has been AICC/SCORM certified. If not, ask for the test results of the LMS against the AICC/SCORM test suite. Discuss the results with your vendor and review any areas of concern.
- Ask for details on how the LMS manages AICC/SCORM errors. Ensure that proper error handling notifies content in cases where AICC/SCORM requests could not be fulfilled. Get documentation on the types of errors a user might see if there is a problem recording progress or completion.
- If possible, get details regarding other client implementations of your content on the vendor's LMS. Were there any issues playing or tracking this content?
- Ask for specific examples of other clients who may have had tracking issues. Discuss the issues and how they were resolved.
- Evaluate the openness of the provider to discuss problem areas. Most LMS vendors have dealt with these issues. Their openness in discussing past problems is generally an indication of their confidence in addressing future ones.
- Evaluate the troubleshooting and technical expertise of the provider. How much help will they be if trouble arises after rollout?
- Identify what tools and processes are available for troubleshooting.
- Understand the fees associated with consulting and troubleshooting.

When tracking issues arise, it may not be the fault of the LMS. However, even in these cases, you will need the assistance of your LMS vendor to troubleshoot the problem. Make sure you are very comfortable with the vendor and their level of expertise in the area of compliance.

VALIDATE YOUR COURSE CONTENT

Work closely with your content provider to evaluate the content for both usability and accurate tracking. Start with an interview of the content provider and make sure you and your team get your hands dirty during the evaluation. Take the course from the perspective of your typical user, or better yet, observe some typical users as they interact with the course. Identify areas of concern and work with the provider to correct these potential issues. You might even decide to have the content validated by an outside vendor, possibly your LMS provider.

The following is a list of items to consider as part of your validation process:

- Ask if the course has been AICC/SCORM certified. If not, ask for the test results of the content against the AICC/SCORM test suite. Discuss the results with your provider and review any areas of concern.
- Ask for details on how the course responds to AICC/SCORM errors. What types of errors might a user see if there is a problem recording progress or completion?
- If possible, get details regarding other client implementations of the content on your specific learning management system. Were there any issues playing or tracking on this LMS?
- Find out what, if any, usability testing has been done with the content. Ask for a copy of the results.
- Ask for a list of frequently asked questions and common issues and provide these to your support personnel.
- Understand how users are provided general navigation instructions and completion requirements. Determine if this information should be augmented with additional information during rollout.
- Ensure that your LMS and content open as few windows as possible. Fewer windows provide a simpler experience for your learners.
- Ask for specific examples of other clients who may have had tracking issues. Discuss the issues and how they were resolved.
- Evaluate the openness of the provider to discuss problem areas.
- Evaluate the troubleshooting and technical expertise of the provider.

- Identify what tools and processes are available for troubleshooting tracking issues.
- Understand the fees associated with consulting and troubleshooting.

The more you know about your content—how to navigate in it, how it communicates progress to the LMS, and how it behaves when technology fails—the more prepared you will be when things don't go as planned.

VALIDATE YOUR NETWORK AND DESKTOP CONFIGURATIONS

Using the information collected regarding the technology requirements of your LMS and content, work with your IT team to ensure that your organization's infrastructure will not hinder the success of your compliance program. Verify that all learners will have appropriate versions of operating systems, browsers, media players, and other desktop software installed or easily accessible.

Ensure that your network infrastructure meets your needs. Understand the role of proxy servers and other network appliances in situations where your LMS or content is hosted outside your firewall.

SIMPLIFY AND STANDARDIZE YOUR CONTENT

Choose (or develop) content that has clearly defined completion criteria. If you require completion of a test or assessment, make sure it is communicated to the learners and they understand passing score requirements. Additionally, ensure the course provides accurate and understandable progress information to the learners as they move through the course.

If learners are familiar with a certain course format, try to provide mandatory training in this format. A learner's comfort level with the look, feel, and navigation of a course is important. If this is not possible, make sure, through testing, that your typical learner is capable of completing the course without assistance.

EDUCATE YOUR LEARNERS

An educated and well-informed learner population will minimize the chance for user behavior issues. Explain to learners, more than once if necessary, why the training is important, where they can find the training, and what they should do (or not do) when taking the training. Base your message on expected interactions between your learners, LMS, and content. If there are behavioral or technological concerns for certain learner populations, take the time to provide customized messages for these audiences.

Create concise documentation and make it available in a variety of ways. Simple one page step-by-step guides can provide critical information in a targeted manner. However, don't go overboard. Providing too much information may cause learners to ignore the information you deem important.

Provide learners with an easy-to-access, knowledgeable support system. If possible, provide dedicated support personnel from the training department or help desk.

ESTABLISH A NON-COMPLETION POLICY AND PLAN OF ACTION

Regardless of how thorough you may be in your preparations, there will be learners who claim completion, but are not recorded as such in the LMS. Develop a policy for this situation. Will you take the learner at his or her word? Will you mark course completion manually? Is there a form the learner must sign? Make sure the policy comprehends all legal and organizational requirements.

In support of this policy, develop a plan of action so that learners understand whom to contact and that administrators and support personnel know how to process these requests. Develop a communications and tracking process to support the policy.

Where possible, soften the non-completion message sent to non-compliant learners. Assume there may be some learners "on the list" who believe they have completed the training. Provide them the opportunity to exercise your policy. In some cases, different audiences may require different messages. For example, executive-level managers may require special communications.

PERFORM A PILOT

No activity will prepare you and your organization better for your compliance training initiative than a properly planned and executed pilot program. A strong pilot program will help to validate the content, process, technology, and support systems.

Here are some recommendations for establishing a pilot:

- Identify the goals of the pilot. Define what you will be evaluating and how it will be measured. Proper completion tracking should only be one of the areas of focus.
- Set a specific duration for the pilot. Defining a stopping point for the pilot establishes a schedule for the required follow-up work of analysis and reacting to the results of the pilot. Most pilots can be planned and executed in no more than 4-6 weeks.
- Establish a common process for collecting feedback.
- Select a user population for the pilot that represents the different geographies, user profile types, and technology infrastructures. Don't limit the pilot to a few people from the training department.
- Establish specific responsibilities and expectations of participants. Ideally, provide incentives for their participation.
- Test on standard computers and networks. Testing in a test lab may not uncover all of the technology issues you could face in an enterprise-wide rollout.
- Don't test just the content. Pilot all policies and processes related to the training program. Run reports and send communications as you would during an actual rollout. Evaluate your learner documentation, support systems, and help desk.
- Unless an issue arises that halts or dramatically hinders the pilot, do not begin problem solving until the pilot is complete. Correcting issues during the pilot will skew results.
- If there were enough issues identified in the pilot, you may want to run a second (or third) pilot.
- Once complete, take the time to properly analyze the feedback from the pilot, ensure that your target goals were achieved, and take necessary corrective actions.

The result of the pilot should not just be a "warm-fuzzy" that your training program will be successful. It should provide a clear view of the challenges your compliance program will face during a broad rollout. Document the challenges you face and create a plan of action to address or manage each one.

Conclusion

Whether you're contemplating your first e-Learning compliance program or you've been delivering electronic content for years, the suggestions in this paper can help prepare you and your organization for a successful compliance program. Prepare your learners. Plan, set up, and test the delivery of your training. Develop processes to deal with expected and unexpected problems. Following these guidelines will increase your chances for overall success and will prepare you for the issues that will arise, whatever they may be.

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080-144-86 - 6/06 GSA Schedule # GS-35F-0042L