

# Distance Learning for Workforce Development

## Tracking: What happens on the Computers in Participant Homes

### 1. Tracking

Whether it's an employee working from home or a workforce participant taking training from home, the question on everyone's mind is..."what are they doing?" Quickly followed by..."are they really doing what they say they're doing?" Thoughts of napping on the couch or eating bon-bons in bed cloud any supervisor's interpretation of a verbal report of any "doing it from home" activity.

Luckily, there is a way to remove the doubt – automated tracking. One of the most beautiful elements of home-based distance learning is that, because it's all done through technology, every single part of it can be tracked. With the right tracking, you can say goodbye to sign-in sheets, time cards, attendance reports, manual categorization of activities, manual compilation of reports and much more.

### 2. The Basics of Tracking

Within home-based distance learning, there are three main ways to automatically track activities: through the software being used, through the Internet connection or through the computer itself. Tracking involves collecting the data of what has been done, storing it, and reporting it in a manner that can be used as you need it. The more tracking there is the more expense that is associated with it.

Collecting data isn't nearly as difficult as storing it (and in the case of social security numbers and other personal data – protecting it). Once data is tracked and stored any number of different reports can be created with it. The real trick to tracking is making sure that what you want gets tracked when it happens and that there is a safe place for it to be stored.

*Example: Tracking can result in huge volumes of data. In order to track all activities by the amount of time spent in them and the category that the activity falls into, Business Access tracks and categorizes every mouse click on our online communities. Since you can easily have 100 mouse clicks in an hour (and our participants have 700,000+ hours of activities), Business Access has processed over 70,000,000 pieces of data to bring our customers real-time participation reports. Whew! That's not your grandma's sign-in sheet!*

### **3. The Responsibilities of Tracking**

When you are tracking the activities of participants in a government program, you have certain responsibilities regarding the protection of the data collected. In the following sections, you'll see that tracking can be done in many different ways with various levels of technical expertise.

Make sure you ask every vendor about how your data will be collected, stored and displayed. Since your primary sources of tracking are going to be coming from Internet-based programs, such as distance learning courses, your data will be transmitted over the Internet. Internet security is no joke. Read any newspaper and you'll read about social security numbers being exposed by a hacker. Your data is precious (government program data actually comes under the purview of the Department of Homeland Security) - make sure your vendor has the experience and resources to handle it.

You must have security protections around who can see information about your participants. Government programs and employers have legal responsibilities to maintain the confidentiality of data. If someone doesn't have approval to see a participant's data, the software programs you use should not let them see it.

If you are tracking participants, you are legally obligated to tell them that you are tracking them. Internet-based programs use a "terms of use" agreement to tell users that they are tracking them and how that data will be used. You may also want to include information about tracking in the agreement you use to enroll your participant in the distance learning program. You may not track the activities of a minor online unless you are a government program with the mandate of serving that minor (Children's Online Privacy Protection Act) or you have permission from their guardian.

Be very very cautious of "free" training or other free online activities that track and report activities. If they aren't getting money from you to pay for the expense of processing the data, they might be getting money selling lists or other information to businesses that will pay for it.

### **4. Software Tracking**

This is tracking that is built into the software being utilized. A part of how the software is programmed includes making it track what is done, store and report that information.

Distance learning courses use software-based tracking. You can expect reports on which of your participants are taking training, what their start/end dates are and what grades they make from any credible distance learning courseware.

When considering training courses and the tracking they offer, understand that taking a training course online actually takes three pieces of software. The first is the training course itself, which contains all the educational content, quizzes and tests. The second is

the course player which “plays” the course and displays all the buttons and other functions needed to participate in the class. The third piece of software is the “Learning Management System” (LMS) which is the place you go to launch the training, see your progress, and get reports about training activities.

The software most responsible for what tracking gets reported to you from distance learning courses is the Learning Management System (LMS). Select the LMS you use carefully. It should have a way to handle all the tracking you require. It has the most impact on the reports you’ll be able to see. If you are running a program where you need to report hours of participation (such as a TANF program) you need an LMS that tracks time spent in the course in addition to the standard start/end date and grade. Do you want to see the number of attempts utilized to pass the final test? Do you want to display non-passing grades? Ask your vendor what options they have.

Some distance learning has its own LMS built into it, but most distance learning uses an LMS that is a separate piece of software (even if they’re selling it to you together).

The distance learning industry has established industry standards (AICC and SCORM) that all distance learning courses and LMSs should be built to comply with. This means that as long as you purchase compliant pieces, you should be able to select any training courses with any LMS with corresponding standards (AICC with AICC and SCORM with SCORM – some, but not all, can do both).

Once you’ve chosen an LMS, the training courses you select will also determine what tracking information you can receive. Some courseware (especially older courseware) isn’t built to track things like number of attempts to take the final test, so it has nothing to tell your LMS and therefore your LMS has nothing to display. But, because it’s likely that you’ll use more than one training courseware vendor in the life of your distance learning project career, it’s better to have an LMS that can do more than you can use right now, than to limit yourself with an LMS that can’t track information you’d like to have even if you got courseware that provided it.

## **5. Internet Tracking**

This is tracking that uses the click on an Internet “address” (URL) to collect where the participant went and the time between when they got there and when they left (= how long they spent there). It is most commonly done by an ISP or broadband provider because it is most efficiently done at the server level. It can also be done with framing, through browser software and/or other software.

Internet tracking allows your distance learning program to incorporate existing websites into the portion of your program that is tracked and categorized. There are many more ways to learn from the Internet than just distance learning courses. Among them are very credible activities for workforce development programs.

*EXAMPLE: Career InfoNet is an exemplary set of web based tools created by the U.S. Department of Labor. The suite of websites includes the ability to build a personal profile, set up notifiers of new jobs posted on America's Job Bank, see what the educational requirements are of your chosen occupation, examine the skills, knowledge and abilities of your chosen occupation, see the occupational outlook in your area, and much more.*

*Of course you want your participants to use Career InfoNet! Internet tracking gives you a way to track the amount of time your participants spent in it so that you can tell U.S. DOL exactly how much they're using it.*

Internet tracking is also the basis for Internet filtering. Filtering is the process by which you take away the option to go to certain websites on the Internet, for example to "filter" out pornography or gambling websites. This is a much more involved process and has to be done by your ISP provider or broadband provider to be done at the Internet level.

## **6. Computer-based Tracking**

Computer-based tracking uses the operating system or other applications on the computer to track the activities being done on the computer. You can track which pieces of software are being used and for how long. You can track processes, like virus scans, to see if they are being done regularly. You can track how long the computer is turned on. Almost anything that is done on the computer can be tracked.

As with software-based tracking, the actual tracking isn't the hardest part. In computer-based tracking, the hardest parts are that you have to store the information collected somewhere on the participant's computer and then you have to get the information from their computer into your reporting system.

With program participants that are not computer experts, storing the information on their computer until you are ready to upload it isn't that hard to do. If you put it in a place that they don't know how to get to, chances are you won't have any problems. But, where there is a will, there is a way. Any data that is collecting on a participant's computer has the possibility of never getting to you.

To get the information to your distance learning program, so that you can categorize it and count it as participation, you'll need to upload it into the data bases that are storing your other tracking data. Back in the day, this was a snap of the fingers to do through the Internet. You could practically reach through the Internet into your participant's computer and make it do whatever you wanted. But now, with activeX controls, authentications, the bad reputation of "cookies," pop-up blockers and all those other Internet restraints, it takes a lot more planning to set up an automatic upload than it used to. At the very least, your vendor will have to have input into your computer hardware "image" and have access to whomever is managing your tracking and reporting databases.

## 7. Putting All Your Tracking Together

You can see that it is possible to track each and every thing that happens in a home-based distance learning program, from the moment the computer is turned on until it is turned off. Combining all that tracking into something that is useable for your program reporting is a bit of another story.

Each one of the three types of tracking requires different technical skill sets. For example, your distance learning training course company should be experts at creating distance learning and may be experts at software-based tracking. But it is highly unlikely that they have knowledge, or even the proper access, to be able to do Internet-based or computer-based tracking. While your ISP company may be able to provide you with some Internet-based tracking, they too may not have the knowledge or the proper access, to assist you with software-based or computer-based tracking.

If you really need full and complete tracking, you'll need a technical team behind you to help you set-up the processes to combine all the data together. You may be able to encourage one of your vendors to oversee the addition of another type of tracking to their current offerings, but expect to pay development dollars. Technical companies do not do programming (which will be required) for free, especially if it is outside their main scope of work. Of course, there is a technical platform that contains it all... but that's for later reading.

Why should you go to all the trouble and expense to do thorough tracking? Because once you've tracked and categorized everything, you can do anything you want. The world is your oyster.

You could produce reports exactly as you need for your funders, boards, managers, and other oversight. You could set up an automatic email that sends USDOL all the information they need on a monthly basis. You could set up an email that alerts you when one of your participants has completed a course. You could automatically share information with your partnering agencies. If you were the Governor, you could review all the progress of all the distance learning programs in your whole state all in one report (in real time). When the media asks what your agency is doing, you could give them a report that is up to the minute and down to the second!

\* \* \* \* \*

February 6, 2007

Since 2000, Business Access has implemented 63 different workforce development home based distance learning programs placing computers in homes reaching over 17,000 people in three states. Program participants have spent more than 800,000 hours online and taken more than 50,000 courses through Business Access' online learning communities.

Programs include: TANF, WIA Adult, WIA Youth, Food Stamps, Career Advancement Vouchers, Individual Training Accounts, Foundation sponsored, U.S. DOL's Women in the 21<sup>st</sup> Century grant, NEG, Military Spouses, and others.

In a study by the Texas Workforce Commission TANF participants utilizing the system were nearly 3 times more likely to be employed after exit and earned an average of \$1,118 more in the first post-exit quarter than TANF clients in other programs. This study included regression analysis.

In a study by the Sloan Center for Innovative Workforce Training and Development and Rutgers University Center for Women and Work, post-TANF participants in New Jersey were found to have 92% program retention and an average of 14% earnings increase.

Independent results compiled by the rural Concho Valley Workforce Development Board showed 156% earnings gains and 90% participation.

The Business Access In-Home Learning System has been noted in the last two reports of U.S. HHSC Urban Partnerships for Welfare Reform, a consortium of 26 major cities representing the majority of the TANF population nationally. It has been recognized by HHSC Peer Technical Assistance, U.S. Department of Labor (JETTCO) and the National Association of Workforce Boards.

It has been independently studied by Rutgers University Center for Women and Work, the Sloan Center for Innovative Workforce Training and Development, the University of North Texas and the Texas Workforce Commission (twice). It has been featured in National Governors Association materials and received other accolades.

The In-Home Learning System is a technical platform for the online delivery of workforce development services. Online communities are localized and include multiple training vendors, content providers and resources. Automated systems manage workflow addressing the issues of computers, Internet access, help desk support, advocacy, reports and communication with government entities. Business Access holds U.S. Patent # 6629843 for the In-Home Learning System, called "Personalized Internet Access." For more information please visit: <http://www.business-access.com>