The Future of On-line Training

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- Overview

On-Line training is not a new concept. As early as 1993, William D. Graziadei was conducting online computer-delivered lectures at the State University of New York. Real-time text chat appeared in the late 1980s, web-based chat and instant messaging software appeared in the mid-1990s, and in the late 1990s, the first true web conferencing capability became available. A recent search on the YouTube website for videos related to “Pork Production” resulted in 504 choices. A similar search on Google for web sites related to Pork Production provided “about 497,000 results”. At Iowa State University, for the fall 2010 semester, there are seven courses in swine production and management that are being taught and learned exclusively through the Internet.

There is no question that the amount of information that can be delivered through the Internet is changing many aspects of our lives including how we become “trained” or how we deliver information to people who want to be trained. The pork industry and agribusiness in general has probably not adopted on-line training at the same rate as some industries over the past 10 years due to a relative lack of internet connectivity and the widely distributed nature of employees in many cases.

But the pork industry is catching up fast and currently offers many excellent opportunities for on-line training and these offerings are growing at a rapid rate.

For the purposes of this overview, training is defined as an organized activity aimed at imparting information and/or instructions to improve the recipient's performance or to help him or her attain a required level of knowledge or skill.
When applied to agribusiness in general and the pork production business specifically, this can include a variety of activities that pass knowledge from one entity to another.

### Types of On-Line Trainings

We will look at on-line training from the points of view of three entity types involved in pork production. First, organizations where teaching and/or the dissemination of knowledge is a primary objective of the organization. This would include colleges, extension and non-profit organizations that collect information for distribution to students, members or the public. Second are businesses that provide goods and services to the pork industry and provide training on the proper use of these goods and services. Third are pork production enterprises that are largely the target for this training material and use it to improve the profitability and efficiency of the organization.

“On-line” implies that the training is being delivered through an open electronic connection of one or more machines to other machines through an electronic network; usually the internet or intranet (a network belonging to an organization, usually a corporation, accessible only by the organization's members, employees, or others with authorization), but could also include other electronic communications like cell phones.

On-line training can be thought of as a subset of a larger concept referred to as E-Learning. E-learning includes Web-based learning, computer-based learning, virtual classrooms and digital collaboration. Content is delivered via the Internet, audio or video tape, satellite TV, and CD-ROM. It can be self paced or instructor led and includes media in the form of text, image, animation, streaming video and audio.

Content and quality of on-line training can range from a college course with the same content and credit granted as a classroom course, to an internet chat room discussion where pork producers can trade thoughts and opinions regarding topics impacting pork production.

First, let’s look at two categories of how on-line training can be delivered: Synchronous and Asynchronous.

### Synchronous Training

Synchronous training happens when two or more people communicate in real time. Examples of this would include taking a college course over the internet and “webinars” where participants go to a predetermined website and watch
material presented over the Internet with two-way voice communications through a telephone or internet connection. There are a number of service providers for this type of training platform including: I-Linc, Saba Centra, Citrix (GoToMyPC, GoToMeeting), Microsoft Live Meeting Web CT (Blackboard Learning Systems), Moodle and WebEx.

There are several advantages to this type of training over traditional methods.

One advantage is the cost savings from not having to travel or spend excess time away from work. Producers can receive training from a company or college without leaving their home or office. Over the last two years, PigCHAMP, the swine record keeping and analysis company, has provided web-based training to over 600 pork producers throughout North America. The training manager, who works out of her home, delivers customized training at convenient times for customers.

For universities or companies offering these services, there is an on-going cost associated with the instructor managing the class, but the overall costs will still be lower than traditional courses.

There is a lot of evidence to show that on-line training can lead to increased retention and a better understanding of the subject matter.

In a recent study, the U.S. Department of Education reports that on-line learning appears to offer a modest advantage over conventional classroom instruction in terms of effectiveness and retention. According to the Gartner Group, the retention of e-learning is twice as high as that of traditional classroom instruction, at half the cost.

On-line training can also shorten the amount of training time needed to learn a given amount of material. Brandon-Hall, an e-learning market research company, reported that e-learning typically requires from 40% to 60% less employee time than the same material delivered in a traditional classroom setting.

Synchronous on-line training allows academic and business experts to easily reach people that would normally be difficult due to distance or timing with a high quality message. Participants can interact, ask questions and engage in discussion with the instructor and other participants.

- **Asynchronous Training**

Asynchronous learning is when training materials and information are stored and available for individuals to access at a time and pace that is convenient
for them. Participants may engage in the exchange of ideas or information without the dependency or involvement of other participants at the same time. Examples of this would be on-line courses that are not facilitated, video recordings available on the Internet, and Internet sites that allow for people to post comments and engage in discussions on a given topic, commonly referred to “chat rooms”.

Another significant and growing area of training for the pork industry is on-line support. Many companies offer this kind of training in the way of searchable knowledge databases, frequently asked questions, chat rooms, online bulletin boards, e-mail, or live instant-messaging support. This service is often free to customers or members and can provide a wealth of knowledge about a product or service at any time without having to find a person to talk to.

There are numerous asynchronous training opportunities available on the Internet for people interested in pork production. One example is the Swine Chat Forum on the Farms.com website that at any time will have over 100 topics of interest to pork producers who can ask questions, provide answers and create new discussion threads for virtually any topic related to pork production.

Another example can be found at http://www.dnlfarmsltd.com/ where there are over 40 short instructional videos related to breeding, farrowing, finishing and general pig handling skills that provide short, useful basic training for new employees or people unfamiliar with the industry.

The primary advantages of asynchronous methods as a source for training are convenience and flexibility. Most asynchronous materials are available at any time and can be absorbed at a pace that is comfortable to the learner. Pork producers and employees can take training at the best time that is convenient to them and not have to worry about working around a scheduled class time. They can also usually pause learning sessions at their convenience and come back. Often participants can go backwards in the material and review material that was not clear as well as skip ahead through material that is already known.

Asynchronous materials also provide a consistent message. Pre-recorded training eliminates the problems associated with different instructors teaching slightly different material on the same subject. These materials are usually less expensive to produce and deliver than in-person training, so there is often lower cost passed on to the participants.
Things to Watch out for

There are also some disadvantages and things to watch out for with on-line training.

First is the cost and assimilation of the necessary technology. Obviously, both the trainer and trainees need basic computer and Internet access. For some types of training special software applications may be necessary to view some of the materials. High-speed Internet access is also desirable, especially in graphic intensive or “streaming” presentations. Computers should also have a sound system in order to hear what the trainer is saying. In some on-line training situations a telephone connection can be used for voice communications. Other asynchronous training uses “voice over IP” where a computer microphone is used to carry voice transmissions over the Internet.

One potential shortcoming of on-line training is the lack of human interaction that is often a significant component of traditional training sessions. Instructors can not observe the body language of participants to see if they are lost or confused. Participants usually do not have the chance to interact during or after the training to compare and contrast how the material is relevant to their individual situations.

Another potential concern, especially in asynchronous training, is the credibility and accuracy of the source. It is pretty easy for anyone to post anything to the Internet. Ask yourself about the credibility and credentials of the source. Is this training, or cleverly disguised marketing?

Conclusion

In conclusion, there is currently a wide variety of training options used by and available to people associated with and interested in pork production. Many of these options provide flexible and cost effective methods to get more information better and faster than before. Pork producers should take inventory of the sources they look to for training—whether academic, governmental or supplier-related to understand what options are available. And a little surfing on Google might turn up sources of information that could become a valuable new resource.