
blaxxun interactive

E-Learning

White Paper

January 2002

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1 Current Challenges

“The manager who can bring his/her global team up-to-date at the click of a mouse has achieved a real and respectable competitive edge. *We can reduce production costs by up to 30% using e-learning.*”

Jürgen Guttmann, Siemens SQT, Net-Business, 06.07.2001

Fundamental problems facing corporate training programs

Today, companies across the board are not only under enormous cost pressure, but also required by global competition to continually and professionally train their employees:

- Shorter and shorter innovation cycles demand high flexibility and faster reaction time when it comes to employee training.
- Only qualified employees can raise productivity.
- Traditional, on-site training seminars are associated with high travel and training costs, as well as downtime.

A company's ability to train its workforce efficiently means a more rapid reaction time to the market. This training can now be held online, saving money and time. Online certification courses and product training seminars can be held online regardless of individual participants' locations. With a company-wide learning portal, training expenditures can be reduced by up to 30%.

(Mummert and Partners, September 2001)

Usability problems of existing online training methods

The main advantages of web-based training methods are seen in the ease of providing and updating content. On the other hand, specific challenges with these methods are becoming more apparent:

- High drop-out rate
- Lack of social contact due to self-study nature of WBT
- Little discussion of information learned and lack of theory-to-practice transfer
- Negligible knowledge transfer within the company

Solution: advanced e-learning methods

The most advanced e-learning methods bring together all the latest advantages of web-based e-learning: rapid delivery and updating of content online, monitoring of learning progress, interactivity and, most importantly, the social aspect.

Web-based training is indeed becoming the platform for knowledge transfer in all forms, from employee seminars, external partner training, or new business-process presentations.

Using a cross-enterprise knowledge distribution platform, you can ensure ongoing training with less downtime. You can also cater to special needs, providing the right information at the right time to the right people.

Through multimedia and interactive presentation of this knowledge, learners put what they've learned into practice more quickly with a lower drop-out rate.

2 E-Learning with blaxxun interactive

E-Learning with the blaxxun Platform enables the most advanced form of online learning. Self-organized learning and the effective transfer of knowledge are supported by a strong focus on social interactivity. Three-dimensional visualization of classrooms lends a more explorative, fun atmosphere to the learning environment. Learning content is presented dynamically and in real time, while the lively discussion of content ensures effective theory-to-practice transfer.

The e-learning application from blaxxun interactive empowers companies with high information-exchange demands by optimizing their communication and knowledge-transfer channels to their employees, customers and partners through:

Interactivity

E-Learning with the blaxxun Platform enables interactive learning in multi-user environments, a truly valuable and memorable experience that community members associate with the learning community.

Study Groups

Above all, community members motivate one another through self-organized study groups where they exchange up-to-date company information.

Incentive-oriented Learning

Community members are rewarded for their participation on the basis of a roles and rights system. Active participation and motivation increase.

Virtual Classrooms

By integrating visual aids, from word documents to three-dimensional product models, content becomes more motivating, intuitive and fun.

Community of Practice

The use of blaxxun technology brings the intensity of the study group to the group members' day-to-day working environment. Individual, isolated learners are transformed into a Community of Practice based on the blaxxun Platform.

3 blaxxun Platform Features

blaxxun interactive, the leading provider of platforms for efficient internet-based communication, produces the ideal tool for the development of interactive communications solutions for E-Learning and E-Service to Online Customer Clubs and even Interactive TV.

The blaxxun Platform is a modular software system offering an extensive range of features in the areas of efficient communication and interaction. High scalability, optimal performance and a user-friendly user interface allow the set-up and operation of a stable application.

3.1 My Desk¹

Individual members have at their disposal a personal area where they can store and manage documents. Each participant has exclusive access to this so-called desk, which has the following features: calendar, agent, messages, My Courses and My Documents.

The calendar provides an overview of all personal appointments and courses. A personal agent can be employed to remind users of courses they have enrolled in. This message appears as an Instant Message directly on the user's desk. The message board feature serves as a meeting place for written, extended discussions of current topics or simply as a place for posted messages. Users can also organize their courses and course content at their desks and jump to that course via mouseclick when the course is starting. Users can create their own learning content in their own document archive just like they do normally on their own PCs.

3.2 Calendar

Personal appointments and those related to the learning community are recorded on the calendar with date and time (view options: day, week, month, and year). The user can also activate an automatic alert function via Instant Message, e-mail or even SMS in the event the user is not in the online learning community at the time the message is sent.

3.3 Message Board

The Message Board facilitates asynchronous communication, meaning here extended written discussions. Community members can thus address course progress/content and other topics that require more preparation than topics associated with chat. Users

can order Message Board entries according to categories like *private*, *community*, *author*, *topic* or *date of last entry*; then by topic titles. All entries centered around a specific topic are stored in a hierarchical structure so that the user can follow the flow of entries intuitively.

3.4 Moderated Chat

Moderated chat is an application-specific implementation of chat communication, enabling well-managed communication in and among large groups.

In a learning scenario, moderated chat is best utilized for discussions between a tutor and a group of learners. In addition, moderated chat supports the management of expert chats or chats involving a large audience. Moderators, who have the right to filter entries, receive the chat entries first in their chat window and are able to modify them, make them public or even, in some cases, reject them. Special guests or experts can receive privileged status so that their entries are automatically made public.

3.5 General Chat Features

Chat is used for general, real-time communication among community members. Depending on the application and particular situation, blaxxun technology enables various forms of chat: public, private, and whisper. Visitors may also choose whether they want to take part in a chat via HTML, Java applet, or 3D plug-in, and whether they want to meet other community members in a three-dimensional environment.

To strengthen the community experience, it is of utmost importance that course participants are able to meet in chat groups voluntarily to exchange information in the learning community. To these ends, chat participants have several communication options:

Public Chat

Public chat enables the chatter to speak to and hear all other chatters who are present in the same environment. All chatters appear with their nicknames in a common chat window and can write entries which can be seen and answered by all present.

Private Chat

The user can also initiate a private chat which cannot be followed by other chatters. The user simply selects another chatter and invites this person to a one-to-one chat. A separate chat window then opens and they are able to chat unnoticed by the other chatters. This is especially useful when a participant has a question not meant for the entire group.

Whisper Chat

Whispering allows the participant to send a private message to another chatter without leaving the public chat. The user simply chooses a chatter from the "Who's Online" list and "whispers" the message via the Whisper button. The "Who's Online" list displays all

users online in the learning community at any given moment.

3.6 CourseFinder

When users are well informed, they can take the most advantage of course offerings and training content, finding the course that is exactly right for them.

With the help of a CourseFinder, courses and topics are filtered and compiled for each user based on his/her personal profile. After the user has completed this personal profile upon registration in the learning community, the CourseFinder is able to compare the profile with the course offerings in the database and then make course recommendations. The results are displayed to the user in a list, making it easy to check out individual courses according to the user's personal needs. In this way, members are kept up to date on new course offerings.

3.7 Profile Matching

To become a member in an online learning community, users must register once with a nickname and a password. At this time they may also complete a personal profile, which may include specific information about interests, career, core competencies, and/or position in the organization. Profile Matching plays an important role in ferreting out expert knowledge within a company or group.

Through Profile Matching, the specific interests and attributes, or particular abilities, of individual members can be assigned and analyzed. Thus it becomes considerably easier to make specialized know-how accessible in the community.

Users can limit searches to those members in the "Who's Online" list to determine who they can contact immediately in the community. Member profiles are accessible via mouseclick.

3.8 Incentive-oriented Learning

To increase member motivation and commitment, you may introduce what is known as an incentive program, through which you can reward participation and contributions within the learning community. Members receive accounts (e.g. experience points) in which they can collect points to reach certain experience levels. Collecting these points gives members access to privileges, higher status or jobs (e.g. co-tutor). The number of experience points or the member's title can be attached to the member's nickname and be made visible in the chat window and profile for all members to see.

3.9 3D Learning Material

You can also display learning content in a virtual environment. By combining visual and spatial experience, you increase learning motivation. You can present learning content, for example the introduction and demonstration of a new product, in true-to-life 3D. Objects and processes appear exactly as they do in the real world, and the user is able to interact with them immediately, hands-on.

One advantage of a realistic, three-dimensional virtual classroom is that the course participant has the sense of a separate place for learning – a real meeting place.

3.10 Application Sharing

Application sharing means the learning community's users' capacity both to view documents, images or presentations together and to use certain applications together, like shared browsing. For example, the tutor, as well as the participants, can hold online PowerPoint presentations, display excerpts from documents, or demonstrate 3D objects, which all participants can view in real time.

The whiteboard, also a shared application, serves as a board for visualizing the participants' ideas. Any participant can write questions, answers, or remarks on the board, and the board is visible to all.

3.11 Avatar Gestures and Mimic

An avatar, the virtual character that represents the user in the virtual learning community, can take any form – even a photo of the user. This type of visualization in the virtual learning community minimizes anonymity, which, in turn, helps to encourage social interaction.

Participants are able to express emotion through body language, gestures and mimic. This allows the trainer to monitor the mood in the course.

3.12 Break-out Sessions (Work Groups)

In an online learning scenario it is essential that participants are allowed to work through the learning content in smaller work groups, just as they would do in a conventional offline class situation. Online, course participants study in a virtual classroom, in which they communicate with one another and the tutor via public chat. But this is not enough for effective learning.

If you define work groups, you can limit communication and interaction to a certain number of participants. Just like in an offline learning scenario, the individual work groups break away from the large group, and therefore the public chat, and are able to discuss the topic in their individual chatrooms. This could also be one large 3D room in which the individual work groups work in different areas of the same room. If the chat communication does not occur in a 3D room, it is possible for the individual chat groups to split into separate Java or HTML-based rooms. In addition to general chat communication, the members of these individual work groups can view documents or presentations together. The trainer can jump among the work groups to monitor progress.

The advantage of 3D visualization is the realistic, intuitive recreation of the learning situation.

3.13 Brainstorming Board

The brainstorming board is an indispensable tool for processing content in a study group.

Metaplan and pin boards are standard brainstorming aids in conventional offline work groups, where individual participants write their ideas on cards and then attach them to the pin board. You can also manage this exchange of ideas quite easily in an online learning community. As in the other shared applications above, all participants are able to read all entries.

In a separate area on the screen, participants can be identified by name, job and a photo.

3.14 Study Groups¹

The students in a learning community inevitably want to discuss courses amongst themselves. They might also take the initiative to seek out opportunities for further learning and social contact. The sole reason for study groups is that these groups encourage direct, uncomplicated exchange of know-how so that in practice the study group continues to work as a self-motivated team – sustainable and intensive. Individual, isolated learners become Communities of Practice and efficient e-teams.

Any community member can found a study group around any title or theme. As long as this study group can be selected from a directory, it is accessible to all community members. A study group has various features at its disposal: exclusive chat, message board, and document archive, as well as its very own virtual study room. The study group founder has privileged rights when it comes to specific features and management within the study group. The founder can also assign rights to other members of the study group to create content. Members also have the opportunity to found “invitation only” study groups.

3.15 Online Surveys and Quizzes

Surveys and quizzes encourage member involvement in the learning community. On the one hand, the mood of the community can be monitored; on the other hand, specific learning content can be reviewed or tested. Surveys and quizzes also make learning more fun. Participants receive an online questionnaire or quiz and have the opportunity to fill in their answers. The results of the survey or quiz can then be made public, often immediately. This feature is also useful for online tests in the framework of a course.

3.16 VoIP (Voice over Internet Protocol)²

VoIP enables the transmission of speech in one-to-one communication as well as in a group over the Internet.

3.17 Audio and Video Streaming²

Audio and Video Streaming is used to convey multimedia learning content. We rely on standard formats and players (e.g. Windows Media Player, RealPlayer, Quicktime).

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¹ This functionality can be implemented according to the customer's needs and is not part of the blaxxun Platform's standard feature suite.

² This functionality is provided by third-party technology and is not part of the price of the blaxxun Platform.