

Exhibit 5
Part 40
To Third Declaration of
Joseph N. Hosteny

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site may also be shown here if desired by the course web site developer. Links may be in the form of URLs to other web pages or resources, or to folders that include groups of logically related resources.

Selection of the Staff Information navigation button **1006** will provide the user with a web page that will list each instructor, TA, professor, etc., along with an abstract listing office hours, address, telephone number, etc. on each, as well as a link that be clicked to send an email. This gives the student with quick, easy access to any instructor as may be desired throughout the course. Images and other types of multimedia files may also be made available at this page for enhanced content viewing.

The user may select the "Course Documents" link **1008** shown in the navigational toolbar, after which the web page **1100** on FIG. 11 is provided for that course. This provides the user with immediate access to all documents relevant to the course. As a student, the user has access to all of the course materials, including additional links to information on the web that will enhance the instructional experience. As an instructor, the user has the ability to post documents of numerous file formats and from disparate locations.

By selecting the "Communication" tab **1010** shown in FIG. 10, the student is provided with the Communication Center web page **1200** as shown in FIG. 12. In this area, the user has at his disposal many different ways of establishing communications with other users of the system as well as accessing other areas of the system for various types of information. Thus, the user has access to an email utility **1202**, a student roster list **1204**, a list of student homepages **1206**, a discussion board **1208**, a virtual classroom chat **1210**, and a group pages link **1212**.

Selection of the Send E-Mail link **1202** loads a web page with various links that allow the user to send email to individuals registered for the course, to students only, to instructors only, etc. The email function is accomplished via web-based email and allows for users to send attachments, etc. as in many existing email packages available today. Selection of the Student Roster link **1204** displays a web page that lists all of the students registered for the course, along with contact information if allowed by the student (such as phone number, address, email address, etc.). Selection of the Student Pages link **1206** provides a web page with links to the homepage for each student in the class.

Another very effective communication tool is the asynchronous Discussion Board **1300**, as shown in FIG. 13, which is displayed by the student selecting the Discussion Board link **1208** of FIG. 12. Here, students can access this for threaded discussions that are archived for easy retrieval. By using the discussion board, students can help each other learn even more easily outside of regular class hours. It can also be used as an effective method for instructors and TAs to use as a tutorial tool for out-of-class questions and discussions that need to be saved for the purpose of sharing with the rest of that class. This utility operates in accordance with techniques well known in the art.

By clicking on the Virtual Chat link **1210**, the student is provided with a web page **3300** as shown in FIG. 33, labeled "virtual chat". That is, each course has its unique chat area built into the course site. Students can engage in chats about the course, collaborate on assignments, and share information beyond the boundaries of the classroom or posted materials. The instructor can monitor the chats or actively engage in discussions. This real-time virtual chat feature can also accommodate a whiteboard mode.

Selection of the Group Pages link **1212** displays a web page that lists various groups of users that are grouped by

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special interests (such as music lovers, bookworms, sports fans, etc.). Access to these groups is a definable parameter that is set by the system administrator.

Selection of the External Links button **1012** will display a web page that is provided with URLs for relevant content that the instructor deems may be useful to the student community. For example, in a law course, links may be provided to various legal research web sites, a Congressional web page, etc.

Selection of the Student Tools button **1014** will display a web page **1400** of associated links as shown in FIG. 14. These links include various tools needed by the student, such as the Student Drop Box **1402**, Change your Information **1404**, Check Your Grade **1406**, Edit Your Homepage **1408**, Student Calendar **1410**, and the Student Manual **1412**.

By clicking the Student Drop Box link **1402**, the student is provided with a web page that will allow control and access to the student's digital dropbox, which is a folder of files that the student can exchange with the course instructor. As shown in FIG. 15, the dropbox web page **1500** allows the student to type in box **1502** the resource location of a file that he wishes to provide to the instructor, or to browse his computer's hard drive with button **1504**, network drive, etc. in accordance with well known techniques to locate the file and insert the appropriate pointer. Clicking the Send File button **1506** will finish the task of uploading the file. A list **1508** of uploaded files that exist in the student's dropbox is also set forth in this page, along with a control link **1510** that enables the removal of a file. By using this utility, the student can submit documents such as term papers to the instructor, who can then read and post comments to the file for return to the student and review.

Selection of the Change Your Information link **1404** provides the student with a web page that sets forth his personal data, such as name, address, email, phone number, password, etc. In addition, certain system preferences may be set at this location. Similar to this link is the Edit Your Homepage link **1408**, which will allow the student to access his homepage and make modifications as he desires (e.g. change a JPEG picture on the page, change hotlink list, etc.)

Selection of the Check Your Grades link **1406** will deliver a web page that shows the grades that the student has been assessed in the course, such as for exams, quizzes, term papers, projects, assignments, etc. The student may be able to link to the specific exam or paper through this utility in order to review the exam again, which may be useful for example in preparing for a final exam. The instructor may also provide to the student a statistical review of the entire class so that the student has a better feel for the grade he may receive (for example, the class median, mean, curve data, etc.).

The Student Calendar button **1410** will provide well known PIM (personal information management) functionality to the student. The Calendar web page can display calendar events in a graphical display for that course, all the student's courses, all institution events, as well as personal calendar events programmed by the user. Thus, different entities can program calendar events, which can be selectively displayed by the student by selection of display functions on the page. For example, the instructor can program the calendar events for the course, and an administrator can program calendar events for the entire campus, and these will be displayed on the student's calendar since he is registered for the course. This provides the student with a greater ability to manage his calendar than has been available in the past.

The final button on the Student Tools web page is the Student Manual link **1412**, which when selected provides the student with access to an online manual that may be used for a “help” reference in navigating the web site.

Located below the navigation button toolbar is a group of control buttons **1420**. The Resources button **1422** links directly to a web page of related online resources to assist with course-related issues, as described further below. The Course Map button **808** gives a separate browser window with direct access to the course contents, as explained above. The My Blackboard button **1424** gives access to “My Blackboard” functionality as explained below. The Search button **1426** enables the user to search all course materials by criteria and keyword(s). The Logout button **1428** logs the user out of the current course. There may also be an Enroll in this Course button to allow students to register themselves in courses (this button is only visible when the student accesses as a guest a course in which he is not enrolled).

Instructor Functionality

The instructor is provided with essentially the same functionality and control as is the student user, with additional functions defined herein. That is, the instructor is provided with a complete set of navigational buttons for accessing announcements, course information, staff information, course documents, assignments, communication tools, external links, and student tools for a given course that he is teaching. The control panel is also given to the instructor to enable display of a set of links to course management and development tools that are available to an instructor.

The instructor’s control panel web page **1600** is shown in FIG. **16**. This control panel **1602** provides the instructor with many features that are useful in managing the course he instructs. The control panel is divided into Content Areas **1604**, Course Tools **1606**, Course Options **1608**, User Management **1610**, Assessment **1612**, and Assistance **1614**, as set forth below.

Content Areas

The Announcement link **1616** displays a web page **1700** as shown in FIG. **17** that will set forth all of the announcements that have been posted for the course, the author (i.e. which instructor, if there are more than one authorized to access this area) of the announcement, and a modify button **1702** and a remove button **1704**. An add announcement button **1706** is also provided, which displays a web page with a blank message field that the instructor fills in and submits to the server. The newly added announcement will then be posted to all students registered in the class.

The Course Information link **1618** displays a web page **1800** as shown in FIG. **18** that will set forth all of the course information documents or folders that have been posted for the course, and a modify button **1802** and a remove button **1804**. An add item **1806** or add folder button **1808** is also provided, which displays a web page with various fields that the instructor will fill in to define the course information entry. After submitting the new entry to the server, the new course information is posted to all students registered in the class.

The Staff Information link **1620** displays a web page that will set forth all of the staff entries (i.e. instructors, Tasks, etc.) that are involved with the course, and a modify button and a remove button for each entry similar to those shown in FIG. **18**. An add item or add folder button is also provided, which displays a web page with various fields that the instructor will fill in to define the new staff item entry. Fields are also provided for links to each staff member’s email

address, web page, etc. Images of the staff member may also be inserted in the entry. After submitting the new entry to the server, the new staff information is posted to all students registered in the class as explained above.

Similarly, the Course Documents link **1622** displays a web page that will set forth all of the course documents or folders that have been posted for the course, and a modify button and a remove button as discussed above. An add item or add folder button is also provided, which displays a web page with various fields that the instructor will fill in to define the course documents entry. The document may be uploaded directly to the server for later access by the student, or a link to an external referenced resource may be provided (i.e. a URL). After submitting the new entry to the server, the new course information is posted to all students registered in the class as explained above.

Likewise, the Assignments link **1624** displays a web page that will set forth all of the course assignments or folders that have been posted for the course, and a modify button and a remove button. An add item or add folder button is also provided, which displays a web page with various fields that the instructor will fill in to define the course assignment entry. The assignment entry may be uploaded directly to the server for later access by the student. After submitting the new entry to the server, the new course assignment is posted to all students registered in the class as explained above.

Also, the External Links link **1626** displays a web page that will set forth all of the external links or folders that have been posted for the course, and a modify button and a remove button. An add item or add folder button is also provided, which displays a web page with various fields that the instructor will fill in to define the external links entry. The external links entry may be uploaded directly to the server for later access by the student. After submitting the new entry to the server, the new external link page is posted to all students registered in the class as explained above.

Course Tools

Under the Course Tools section **1606**, the Course Calendar link **1628** displays a web page that will set forth all of the calendar events that have been posted for the course, and a modify button and a remove button. An add item button is also provided, which displays a web page with various fields that the instructor will fill in to define the new calendar entry (i.e. description, date, time, etc.). The calendar entry may be uploaded directly to the server for later access by the student. After submitting the new entry to the server, the new calendar page is posted to all students registered in the class as explained above.

The Course Tasks link **1630** displays a web page **1900** as shown in FIG. **19** that will set forth all of the tasks that have been posted for the course, and a modify button **1902** and a remove button **1904**. An Add Task button **1906** is also provided, which displays a web page with various fields that the instructor will fill in to define the new task entry (i.e. description, date, time, etc.). The task entry may be uploaded directly to the server for later access by the student. After submitting the new entry to the server, the new tasks page is posted to all students registered in the class as explained above.

The Send Email link **1632** displays a web page that is similar to the one the user will be provided with in his email function (i.e. allows selection of individual users associated with the course, certain predefined groups of users such as all students, etc.)

The Instructor Library link **1634** displays a web page **2000** as shown in FIG. **20** that will set forth all of the folders

and files that have been posted by the instructor for the course, and a modify button **2002** and a remove button **2004**. These materials are accessible to instructors only (professors, TAs, etc.), and not to students directly. An Add File button **2006** and an Add Folder **2008** button is also provided, which displays a web page with various fields that the instructor will fill in to define the new entry. In addition, the instructor is able to select the Add From Institution button **2010** to select a new reference that is available from a pool of references made available to all instructors from the institution. The new entry may be uploaded directly to the server for later access by the instructors associated with the course. After submitting the new entry to the server, the new Instructor Library page is posted to all instructors associated with the course.

The Virtual Classroom link **1636** displays a web page that provides a link to either launch a virtual classroom (and thus participate in real-time, synchronous classroom sessions), or to view the classroom archives (view previous classroom sessions and/or download these sessions to the instructor's computer). Each course includes a Virtual Classroom, which is a synchronous chat room for student and group communications. The Virtual Classroom can be used to hold "live" classroom discussions, TA sessions, and office hour type question/answer forums. One can even have guest speakers and subject matter experts talk with the class in the Virtual Classroom.

A Virtual Classroom contains several distinct areas. The Whiteboard Space is where web pages are displayed, which is the large center area. One can also write or draw on this space using the drawing toolbar. The Menu Bar is used to change the information that appears on the whiteboard space, such as selecting a font to use on the whiteboard space and moving an object on the whiteboard space behind another object. One can also prepare lessons, navigate slides displayed on the whiteboard space, and clear the Group Discussion tab and Questions and Answers tab (refer to the Tab Panel description for further information on these tabs). The Application Tool Bar contains tools for navigating web pages. The Location Field is used to enter the URL of a web page the user would like to use during the Virtual Classroom session. The web page is then displayed on the whiteboard space. Users can also write or draw on the web page with the drawing toolbar. The Drawing Toolbar is used to write and draw on the whiteboard space. The Status Region is where status messages are displayed at the bottom of the Virtual Classroom window. The Tab Panel is used to chat with students, respond to students' questions, control classroom behavior, and view information about the students in the Virtual Classroom.

The following panels are available:

Name of Tab	Purpose
Group Discussion	Use this tab to talk with the students in the Virtual Classroom.
Questions and Answers	If a student uses his/her Questions tab to submit a question to the instructor, the instructor can then answer the question using the Incoming Questions tab. Thereafter, the instructor can view a log of their dialogue regarding the question on the Questions and Answers tab.

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Name of Tab	Purpose
Participant Information	Use this tab to learn about the students in the Virtual Classroom, such as their names.
Slides	Use this tab to prepare and present a series of slides. (See Options in Preparing Lessons). The tab is only available to the Instructor.
Incoming Questions	If a student uses his/her Questions tab to submit a question to the instructor, the instructor can then answer the question using the Incoming Questions tab. Thereafter, the instructor can view a log of their dialogue regarding the question on the Questions and Answers tab. The Incoming Questions tab is only available to the instructor.
Access Control	Use this tab to control students' ability to conduct the four Virtual Classroom activities: Question, Chat, Drawing, and Navigating. The tab is only available to the instructor.

Selection of the Discussion Board link **1638** displays a web page that provides links to the available discussion boards that are associated with the course. A discussion board is another communication tool to use in a classroom setting. This feature is similar to Virtual Chat, but is designed for asynchronous use, so users do not have to be available at the same time to have a conversation. An additional advantage of the discussion board is that user conversations are logged and organized. Conversations are grouped into forums that contain threads and all related replies.

Selection of the Digital Dropbox link **1640** displays a web page **2100** as shown in FIG. **21** that lists the files that exist in the digital dropbox. The Digital Dropbox is a tool that the instructor and students can use to exchange files. The Dropbox works by "uploading" a file from a disk or a computer to a central location. A participant can then come and "download" it to work locally. The Digital Dropbox is used to exchange materials between a single student and the instructor. Information that needs to be posted for all students should be placed in the Course Documents area using the Page Editors.

Individual student access to the Dropbox is available from the File Transfer Area located in Student Tools area on the Course. Students also have group access to a private dropbox from a group homepage.

The web page **2100** displayed lists the current files in the dropbox, which are the files that participants have sent to the user. Files posted here can be accessed and saved. The Send File **2102** to the Student area is where files are uploaded and sent to specific students. The user can also delete files that are no longer needed.

Course Options

The Course Options area **1608** includes a Course Options link **1642** that will display a web page to the instructor that has the links for Button Availability, Tool Availability, Course Availability, Course Duration, Enrollment Options, Enrollment Fees, and Guest Access. Selection of the Button Availability link will display a web page that will allow the user to set and configure the buttons that are used by students in that course, including enabling or disabling them, or

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making them secure (i.e. only accessible by enrolled students). Selection of the Tool Availability link will display a web page that will allow the instructor to enable or disable the student tools and communication functions for that course (i.e. email, discussion board, virtual chat, student roster, group pages, student dropbox, edit homepage, personal information, calendar, grades, tasks, electric blackboard, student manual, and course search). Selection of the Course Availability link will display a web page that will allow the instructor to enable or disable the availability of the course to students (i.e. it can be kept unavailable until the course site is finished). Selection of the Course Duration link will display a web page that will allow the instructor to select the duration of the course (continuous, start and end dates, or number of days from the date of enrollment). Selection of the Enrollment Options link will display a web page that will allow the instructor to select the enrollment options as either "instructor led", which allows students to email enrollment requests to the instructor, or "self-enrollment", which will specify the start and end dates and optionally require entry by the student of an access code to enroll. Selection of the Enrollment Fees link will display a web page that will allow the instructor to specify if fees should be charged for enrollment in the course, and what the fees should be. Selection of the Guest Access link will display a web page that will allow the instructor to specify if guests may access the course.

Selection of the Course Properties link **1644** in the Course Options area **1608** displays a web page that enables the instructor to add and/or edit course properties, including the course name, a description of the course, and a subject area for categorization purposes.

Selection of the Course Utilities link **1646** in the course options area **1608** displays a web page that enables the instructor to select a Course Recycler link, an Export Course Link, or an Import Course Cartridge link. The Course Recycler link enables the instructor to recycle the course by selectively removing areas of the course, which are displayed as check boxes next to various content categories (course documents, course information, textbooks, assignments, etc.), various staff areas (staff information, faculty), and external web links. The instructor can also choose to recycle other areas such as discussion boards, gradebook, assessments, etc. The Export Course link enables the instructor to export all, or specific sections, of the course (i.e. content, users, assessments, and/or discussion boards). The Import Course Cartridge link enables the instructor to download and install a course cartridge (if they have an access key).

Selection of the Course Images link **1648** in the course options area displays a web page that enables the instructor to select a Button Style link (to set the button styles for the course) and to select a Course Banner link (to add or remove a course banner on the first page of the course).

Selection of the Academic Web Resource link **1650** in the course options area displays a web page that enables the instructor to select an Enable/Disable Academic Web Button link (to enable or disable the resources button the course homepage) or a Customize Academic Web Button link (to designate the Academic Resources for the course, wherein the instructor can customize the number of links and the content that is available for the students).

User Management

Selection of the Add Users link **1652** in the user management area **1610** displays a web page that enables the instructor to select a Create User link, an Enroll Existing

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User link, or a Batch Add User link. The Create User link displays a web page that will enable the instructor to create a new user account and enroll him in the course, by inputting name, address, etc. of the user, designating the user's role (student, instructor, TA, grader, etc.) and providing a password if desired. The Enroll Existing User link displays a web page that enables the instructor to enroll a user in the course. The Batch Add Users link displays a web page that enables the instructor to create all of the user accounts by uploading a text file containing the user data.

Selection of the List/Modify Users link **1654** in the user management area **1610** displays a web page that enables the instructor to list and/or modify the users of the course, while selection of the Remove Users link **1656** displays a web page that enables the instructor to remove a user if desired from the course. Selection of the Manage Groups link **1658** enables the instructor to create and edit certain user groups (e.g. gifted students, remedial students, etc.).

Assessment

Within the course, instructors are able to bring quizzes, tests, and surveys online. Included may be essay, true/false, multiple choice, fill-in-the-blank, or matching questions. The questions can include text, graphics or multimedia. For the student, instant feedback is provided through automatic grading functionality. For the instructor, there is the ability to randomize the tests, time them, and create statistical reports of outcomes. Assessments within this system are an optimal way to increase student preparedness for class and to track and compare student progress over time. The Assessment area **1612** of the control panel **1602** allows the instructor to select an Assessment Manager link **1660**, a Pool Manager link **1662**, an Online Gradebook link **1664**, or a Course Statistics link **1666**.

Selection of the Assessment Manager link **1660** in the assessment area **1612** displays a web page that enables the instructor to create, edit and otherwise manage the assessment content areas. For example, the instructor may create an assessment by entering an assessment name, a description, and setting certain parameters including Show Detailed Results (shows the students the results for each question instead of simply their final grade), Reveal Correct Answer (shows the students the correct answer for each question), Feedback Enabled (allows students to view the feedback that the instructor has entered for each question), Allow Multiple Attempts (allows students to take the assessment more than once), Set Time for Quiz (sets a timer that is shown to the student during the exam), and Password Protect (allows only those students with the entered password to take the test). By clicking the Modify option, a web page is displayed that enables the instructor to modify the assessment by adding items. An item is added by selecting the type of question (multiple choice, true/false, fill in the blank, etc.), typing in the question text and possible answers (i.e. if it is multiple choice) with an indication of the correct one, specify the order of answers, etc. The order of the questions can be changed in this web page as well.

Selection of the Pool Manager link **1662** in the assessment area **1612** displays a web page that enables the instructor to Add Pool, Import Pool, Search Pool, or Export Pool. Pools are predefined groups of questions and answer sets that are logically linked, usually by subject matter, so that an instructor may draw from a pool to obtain existing questions and answers sets from other courses, instructors, semesters, etc. and not have to "recreate the wheel" every time they generate or modify a test. Thus, by clicking the Add Pool button, the instructor can add a new pool to the list of pools

displayed on the Pool Manager web page. He will have to type in the name of the new pool and a description of it on this form. By clicking the Import Pool button, the instructor will enter the name of an existing pool to import, or alternatively browse a disk drive to find the pool to import. By clicking the Search Pool button, the instructor is presented with a web page that will enumerate various available pools that can be searched for questions of interest for importing. The entire pool can be previewed by selecting a preview mode, and all of the available questions in that pool may be viewed. By clicking the Export Pool button, a pool may be selected for exporting purposes. For the list of available pools set forth on the Pool manager page, the instructor may modify the pool, in which case a web page is displayed that lists all of the questions (and associated answer sets) that are in the pool. Each question in the pool may be modified in the same manner as explained above with respect to the assessment manager. Likewise, questions may be deleted entirely from a pool, and new questions may be added to the pool as described above with respect to the assessment manager.

Selection of the Online Gradebook link **1664** in the assessment area displays a web page that enables the instructor to perform various functions with respect to the online course gradebook. FIG. 22 illustrates a web page **2200** entitled "Course Gradebook", which provides a variety of information including consolidated grades, individual assignment/test scores, direct access to specific assignments or tests by student, or a look at a specific test with aggregated results. This allows the instructor to organize the grade information so that it is meaningful. It provides insight into the effectiveness of certain assignments and provides a bridge for allowing instructor-assessment of assignment and class content. The functions provided on the Online Gradebook web page in the assessment area of the control panel include Report By User (used to find a specific user and view statistics, assessment results, and modification of any scores for a user), Report By Item (used to view information about a specific gradebook item), Spreadsheet View (standard gradebook view as shown in FIG. 22, the instructor can modify, add or remove gradebook entries as well as view assessment results), and Export Gradebook (exported as a comma-delimited file).

Selection of the Course Statistics link **1666** in the assessment area displays a web page that enables the instructor to set parameters and view certain statistics for their course. Most instructors want to analyze their class by how much their online materials are being accessed, but very few have the opportunity to take the time or the effort to determine these numbers. By using the course statistics web page **2300** shown in FIGS. 23A and 23B, the system provides a rich tool set for instructors to evaluate the relative statistics of their courses. These statistics may be valuable for evaluating online versus non-online courses to determine the relative efficacy of online materials and how they are enhancing the course. Thus, the Course Statistics web page has input fields for selecting a report filter, which will yield a report with Overall Summary of Course Usage, Main Content Areas report, Communication Areas Report, Group Areas Report, or Student Areas Report. The time period must be specified, which may be all dates or between a beginning date and an end date. The users must be selected, which will be either all users or a selected subset thereof. Other options include Total Number of Access per Area **2302**, Number of Accesses over Time **2304**, User Accesses per Hour of Day **2306** (or Day of Week **2308**), and Total Accesses by User **2310**. The

data, charts and graphs as shown in FIGS. 23A and 23B will then be displayed to the instructor.

Assistance

Finally, there is an Assistance area **1614** defined in the Control Panel, which sets forth links that will provide the instructor with various types of help. Selecting the Online Manual link **1668** will bring up an HTML based Instructor Manual in a separate browser window. The Online Support link **1670** will bring up a web page with contact info for sending an email to a support person, and the Contact Admin link **1672** will bring up a web page with contact info for sending an email to an administrative contact.

Administrator Functionality

The Administrator Panel **2402**, shown in FIG. 24, gives the system administrator complete access to all of the features of the system including portal features, course and club creation and management, institution and system tools, e-commerce features, user management, and other various institutional options. This is accessed by selecting the Enterprise Administration tab **2404** shown on the homepage.

The Administrator panel **2402** includes a Portal Areas group **2406** of functions, a System Tools area **2408**, an Enterprise Tools Area **2410**, a System Options Area **2412**, a Course and Community Management area **2414**, a User Management Area **2416**, an E-Commerce Area **2418**, and an Assistance area **2420**, as explained further below.

Portal Areas

Selection of the My Institution tab **2422** in the Portal Area **2406** provides a web page that lists four hyperlink selectable options: Customize Institution Tab, Institutional Module Options, All Module Options, and Off-Campus Institution Partnerships. The Customize Institution Tab link will provide a web page that allows the user (the enterprise administrator, in this case) to enable/disable the appearance of the "My Institution" tab for all users, as well as enable/disable a Welcome Message that may be displayed at logon. The user may also select an image for the tab, as well as the name, and provide a predefined URL that will be associated with the tab when selected by the end user.

The Institutional Module Options refers to the default layout is the set of modules that new users sees the first time they log in to the portal. This allows the enterprise administrator to enable/disable and/or set as required the following modules: My Courses, My Organizations, Today's Announcements, Today's Tasks, Today's Calendar, School Services, Student Module, Faculty Module, Staff Module, Alumni Module, Perspective Student Module, Guest Module, Other Module, Institution Newspaper Module, and Blank Module (a blank module that can be customized).

The All Module Options link allows the user to enable/disable and/or set as required the following modules: Bookmark, Calculator, Channels, Clip, Comment Clip, Custom Search, Directory, Discussion Boards, various co-branded portal links (such as EXCITE news, entertainment features, stock prices, sports updates, maps, etc.), shopping site links, yellow pages links, etc.

The Off-Campus Institution Partnerships link allows the user to add, modify, and edit hyperlinks to web sites with which the institution has formed various partner or other types of arrangements; for example, a partnership with an off-campus bookstore may be provided as a means for supplementing the on campus bookstore.

Selection of the Course tab **2424** in the Portal Area provides a web page that lists four hyperlink selectable options: Customize Courses Tab, Enable/Disable Course

Creation, Course Catalog Options, and Off-Campus Learning Partnerships. The Customize Courses Tab link will provide a web page that allows the user (the enterprise administrator, in this case) to enable/disable the appearance of the "Courses" tab for all users. The user may also select an image for the tab, as well as the name, and provide a predefined URL that will be associated with the tab when selected by the end user.

Selection of the Enable/Disable Creation Option link provides a web page that allows the enterprise administrator to select an option to not allow users to create courses, to allow users to create courses, or to allow the user to send an email request for course creation. Selection of the Course Catalog Options link provides a web page that allows the enterprise administrator to select the use of a default course catalog or to specify the use of an internal course catalog and the URL of its location. The Off-Campus Learning Partnerships link allows the user to add, modify, and edit hyperlinks to web sites with which the institution has formed various learning partner arrangements; for example, a link to the KAPLAN or TUTORNET web sites.

Selection of the Community tab **2426** in the Portal Area provides a web page that lists five hyperlink selectable options: Customize Community Tab, Enable/Disable User Creation of Organizations and Discussion Boards, Organization Catalog Options, Manage Discussion Boards, and Off-Campus Community Partnerships. The Customize Community Tab link will provide a web page that allows the enterprise administrator to enable/disable the appearance of the "Community" tab for all users. The user may also select an image for the tab, as well as the name, and provide a predefined URL that will be associated with the tab when selected by the end user.

Selection of the Enable/Disable User Creation of Organizations and Discussion Boards link provides a web page that allows the enterprise administrator to select options to allow or disallow instructors and students to generate general organizations and discussion boards from the Community Tab or limit organization/discussion board creation to the system administrator.

Selection of the Organization Catalog Options link provides a web page that allows the enterprise administrator to select the use of a default club catalog or to specify the use of an internal club catalog and the URL of its location. The Manage Discussion Board link provides a web page that allows the user to set various parameters and otherwise add and manage various discussion boards on the system. The Off-Campus Community Partnerships link allows the user to add, modify, and edit hyperlinks to web sites with which the institution has formed various arrangements.

Selection of the Services tab **2428** in the Portal Area provides a web page that lists three hyperlink selectable options: Customize Services Tab, Institution Services, and Off-Campus Service Partnerships. The Customize Services Tab link will provide a web page that allows the enterprise administrator to enable/disable the appearance of the "Services" tab for all users. The user may also select an image for the tab, as well as the name, and provide a predefined URL that will be associated with the tab when selected by the end user.

Selection of the Institution Services tab allows the user to create and manage links to other relevant parts of the campus intranet. The Off-Campus Service Partnerships link allows the user to add, modify, and edit hyperlinks to web sites with which the institution has formed various service arrangements.

Under the System Tools area **2408** of the Portal Manager web page, various links are provided to web pages that allow the enterprise administrator to manage Announcements **2410**, the Institution Calendar **2412**, the Institution Tasks **2414**, and Send E-Mail **2416** in a manner similar to what was described with respect to similar tabs in the previously described sections above.

Under the Enterprise Tools area **2410** of the Portal Manager, links are provided to web pages that allow the enterprise manager to Manage Institution Library **2418**, and View Published Requests. The Manage Institution Library web page allows the user to add new items from local disk or his inbox into the institution library, edit items, remove items, etc. The View Published Requests web page allows users to view, approve and reject instructor published files for the Institution Library.

Under the System Option area **2412** of the Portal Manager, the user is provided with links to Gateway Options **2424**, System Settings **2426**, System Statistics **2428**, Institution Properties **2430**, Colors and Images **2432**, and Course Marketing **2434**. The Gateway Options link **2424** provides a web page that will determine whether the login button, course catalog, and new user account button appears on the gateway page. The System Settings link **2426** provides a web page with links to Button Overrides (sets which button areas can be used throughout the system), Tool Overrides (sets which tools can be used throughout the system), System Settings/Overrides (set overrides for course and club tools and properties across the entire system), and Course Disk Quotas (sets file system disk quotas for courses).

The System Statistics link **2428** provides a web page with links to a System Reports web page (which allows the enterprise administrator to view reports covering the system and its usage), an Auto-Reporting Options web page (which sets various options for automatically reporting statistics to a service provider), and a Send System Statistics web page (which will send the statistics to the service provider on demand).

The Institution Properties tab **2430** provides a web page that allows the enterprise administrator to view system information such the current version of the software, the registration page, and email contacts. The Colors and Images link **2432** allows access to a web page that allows the administrator to modify the aesthetic properties of the web site.

The Course and Community Management area **2414** of the Portal Manager provides hyperlinks for Create Course **2436**, Manage Courses **2438**, Course Utilities **2440**, Course Catalog **2442**, Create Organization **2444**, Manage Organization **2446**, Organization Utilities **2448**, and Organization Catalog **2450**.

The Create Course web page **2900** is shown in FIG. 29. There, the administrator will enter the requested information about the desired course; i.e. the course name, and ID, and a textual description. The administrator can then specify properties of the buttons that will be used along with the course to match his aesthetic concerns. The administrator can then specify various options, such as the subject area of the course, whether guests may access the course, if the course is currently available, if a course cartridge may be obtained and its URL and access key, and the instructor ID for the course.

The Manage Courses web page allows the administrator to list and/or modify courses, remove them from the system, and set certain default tools (email, Discussion Board, Virtual Chat, Roster, etc.) and buttons (Announcements, Course Information, Staff Information, Virtual Classroom,

etc.) to be used with each course in the system. The Course Utilities web page allows the administrator to select a Copy Course link (to make a copy of a course with a new course ID), an Import Course link, an Export Course link, and a Batch Create Courses link. The Course Catalog link allows the user to categorize course and otherwise manage the course catalog.

The Create Organization, Manage Organization, Organization Utilities, and Organization Catalog links allow the user to obtain similar control and functionality with organizations as with courses as described above.

The User Management area **2416** of the Portal Manager provides hyperlinks for Create User **2452**, Manage Users **2454**, and User Utilities **2456**. The Create User web page **3000** (FIGS. **30A** and **30B**) allows creation of a user entry by entering personal information such as name, address, etc., and a user name and password. The role of the user is set at this time, which may be a Student, Faculty, Staff, Alumni, Guest, etc. Also, the user may be given an administrative role at this point by selecting the appropriate option that is available (None, System Admin, System Support, Course Creator, Account Admin). The role of the user will determine the access and control of the system that the user will have as explained throughout this document. Once a user is created, the Manage User web page allows listing, modification, and/or removal of users. The User Utilities link **2456** allows the system administrator to Batch Create Users (upload a file of user data in predefined formats compatible with the system), Batch Enroll Users (import a file to enroll users in courses and clubs that exist in the system), and Batch Remove Users (import a file to remove users from the system).

The E-Commerce area **2418** of the Portal Manager provides links to web pages for Sponsorships **2458**, Partnership Program **2460**, and Course E-Commerce **2462**. The Sponsorship web page has links to Primary Site Sponsor web page a "My Institution" Area Sponsor, a Course Area Sponsor, a Community Area Sponsor, and a Services Area Sponsor. These links allow the user to designate if a sponsor is used in each of these capacities, an image of the sponsor link, etc.). The Partnership program page allows the administrator to enroll the institution in the service provider partnership program, which can bring additional e-commerce opportunities to the portal environment. The Course E-Commerce page provides links to Enable/Disable Course and Club E-Commerce (to select e-commerce options for charging fees for the courses or clubs, allow administrators to set prices, allow club leaders or instructors to set prices, etc.), and a Price Course link to manage or set the cost of enrolling in courses or organizations.

Other Utilities and Functions

One of the key elements to college and university life is the ability to socialize and take advantage of the human element on campus. The system's "Community" tab **2502** provides the web page **2500** shown in FIG. **25**, which allows students to interact and be involved in all aspects of campus life from fraternities and sororities to off-campus communities that enhance the learning experience. Many campuses also provide rich services such as job availability through the community function. The Community center is the web equivalent of the student union building.

Most students are so conversant in online services that they prefer to have campus administrative services available all the time on the web. The system provides an enterprise level teaching and learning system that allows tight integration into student information systems and other campus

systems to provide anytime, anywhere administrative services. The Services web page **2600** shown in FIG. **26** (selected by tab **2602**) enables users to register, add, drop, check records, or even pay parking tickets while online at anytime.

The system also provides a calendar **2700** that incorporates personal as well as institutional information in a single view, as shown in FIG. **27**. The calendar utility gives students and teachers access to all calendar events for each of the courses they are enrolled in, as well as institutional calendar events.

Since email is the single most popular application on the Internet today, and the leading reason that most people purchase personal computers, email has been integrated with the system, as shown by the web page **2800** in FIG. **28**. Within a personalized home page, the user will be able to access complete email capabilities. The email system sits on top of the existing POP or IMAP server and offers a web-based front end so that the user may access messages from any machine at any time.

FIGS. **31** and **32** show web pages **3100** and **3200** that can be accessed by tab **3102** to provide links that allow students and teachers to find and access academic resources and content. These resources are also context-sensitive to the course discipline. For example, if one accesses the academic web resources from an accounting course, he is automatically directed to news and information sources that are relevant to accounting. The user has access to news, web links, reference works, and search engines that enhance the ability to locate relevant information quickly.

In another aspect of the invention, provided is a system and method for applying E-commerce to education. Specifically, this aspect of the invention allows users visiting a web site to register and pay for courses provided by a college, university, or other institution.

FIG. **34** is a block diagram illustrating information passed from a course registration server to a payment server. As a current or prospective student reviews courses offered by a college, university, or other institution, a student may add courses of interest to a list, or "shopping cart".

When a student has selected courses for which they would like to register, a student may proceed from a registration or review area (Block **100**) to a "checkout" area (Block **110**), as illustrated in FIG. **34**. When a student proceeds to a checkout, information, such as, but not limited to, name, address, cost of courses, order identifier, order description, and a page to which a user is to be returned when an order is complete, is passed on. Information passed from a registration or review area may be used to generate a payment form.

FIG. **35** is a sample of a payment form. A payment form may consist of an introductory paragraph **210**, a purchase summary **220**, a payment information area **230**, and the like. An introductory paragraph **210** may be used to instruct a student in requirements at each stage of the payment process. A purchase summary **220** may include services and products selected, per-unit prices, quantities requested, inventory numbers for each product or service selected, an invoice or purchase number, a total price, and other, similar information.

A payment information area **230** can be used to collect payment information from a student. A student may be required to enter some information manually, such as, but not limited to, credit card type, credit card number, credit card expiration date, name on credit card, credit card billing

address, check number, checking account number, bank routing number, debit card number, and personal identification number ("PIN code").

If a student has previously used the present invention, some information may be automatically entered based on previously submitted forms. Information transferred from a registration server may also be used to fill in some form fields. When a student has reviewed entered information, a form may be submitted for processing by activating a button or other interface element.

FIG. 36 is a block diagram illustrating interaction between a payment server and a payment validation server. After a student has entered necessary information into a payment form and submitted the form (Block 300), some information, such as, but not limited to, amount of purchase, credit card number, name on credit card, check number, bank routing number, or billing address, may be transmitted to a payment validation server (Block 310). A payment validation server may be maintained as part of the present invention, or payment validation servers may be maintained by one or more third parties, such as, but not limited to, CyberCash, Inc.

A payment validation server processes transmitted information, contacts a bank or other institution issuing the credit card or other payment form, and verifies that a payment of the amount requested is authorized. If payment of the requested amount is authorized, authorization information, including, but not limited to, a confirmation number, may be transmitted to a payment server. If payment of the specified amount is not authorized, other information, such as a declination code, may be transmitted to a payment server. If payment is not authorized, a payment error message similar to Block 320 may be displayed. FIG. 37 is a sample of a payment information page. A student may print or otherwise record information displayed on a payment information page for his or her records. A payment information page can include a thank you, confirmation, or other message (Block 410). A payment information page may also include information such as, but not limited to, confirmation or declination information; goods, services, and classes purchased; and total price charged (Block 420). In addition, a payment information page may include a button or other interface element which a user can activate to continue processing. The exact behavior of this interface element may be determined by the referring system through the URL or other data element which is illustrated in FIG. 34.

FIG. 38 is a block diagram illustrating post-order processing. As previously stated, a payment information page may also contain a button or other interface element which, when activated, causes a web page to be displayed or performs other processing steps. Activating the button or interface element may also cause some authorization/declination information to be transferred to a college, university, or other institution's accounting department for processing (Block 530).

Open Web Environment

The present invention may be used as an open platform environment, where anyone with access to the Internet may register as an instructor to create, administer, and make available a course to anyone else with Internet access. Thus, by entering a publicly available website such as www.blackboard.com, a user may register as an instructor and be provided with an instructor control panel for creating course as described herein. To create the course, the user will define course parameters such as a description, enrollment options, announcements, assessments, course materials, etc., and

provide them in the various web pages as described above. The user can then let others know about the availability of the course online, and a potential student may access the publicly available web site to enroll in the course. In this manner, anyone can create a virtual classroom without the need to be affiliated with an institution, and disseminate knowledge through the course as previously unavailable.

While the preferred embodiment and various alternative embodiments of the invention have been disclosed and described in detail herein, it may be apparent to those skilled in the art that various changes in form and detail may be made therein without departing from the spirit and scope thereof. In addition, titles and descriptions included in the Figures are included to disclose the best mode contemplated by the inventor at the time of filing, and should not be construed as limiting the invention.

What is claimed is:

1. A course-based system for providing to an educational community of users access to a plurality of online courses, comprising:

- a) a plurality of user computers, with each user computer being associated with a user of the system and with each user being capable of having predefined characteristics indicative of multiple predetermined roles in the system, each role providing a level of access to a plurality of data files associated with a particular course and a level of control over the data files associated with the course with the multiple predetermined user roles comprising at least two user's predetermined roles selected from the group consisting of a student role in one or more course associated with a student user, an instructor role in one or more courses associated with an instructor user and an administrator role associated with an administrator user, and

- b) a server computer in communication with each of the user computers over a network, the server computer comprising:

means for storing a plurality of data files associated with a course,

means for assigning a level of access to and control of each data file based on a user of the system's predetermined role in a course;

means for determining whether access to a data file associated with the course is authorized;

means for allowing access to and control of the data file associated with the course if authorization is granted based on the access level of the user of the system.

2. The system of claim 1 wherein the instructor user is provided with an access level to enable the creation and editing of a plurality of files associated with a course.

3. The system of claim 2 wherein the course files comprise an announcement file.

4. The system of claim 2 wherein the course files comprise a course information file.

5. The system of claim 2 wherein the course files comprise a staff information file posted to all registered in the course.

6. The system of claim 2 wherein the course files comprise a course document file posted to all registered in the course.

7. The system of claim 2 wherein the course files comprise an assignments file posted to all registered in the course.

8. The system of claim 2 wherein the course files comprise a dropbox file.

9. The system of claim 2 wherein the course files comprise an asynchronous communication file.

10. The system of claim 2 wherein the course files comprise a synchronous communication file.

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11. The system of claim 2 wherein the student user is provided with an access level to enable reading of a plurality of files associated with a course.

12. The system of claim 11 wherein the student user is provided with an access level to enable modification of a subset of the plurality of files associated with a course.

13. The system of claim 11 wherein the user is provided with an access level to enable creation of a student file associated with a file for which the student user is able to read.

14. The system of claim 13 in which the file that the student is able to read is an assessment file created by the instructor user, and the student file created by the student user is a response to the assessment file.

15. The system of claim 14 wherein the assessment file comprises a plurality of examination questions selected by the instructor user to assess the ability of the student user.

16. The system of claim 15 wherein the examination questions are selected by the instructor user from a predetermined pool of available examination questions.

17. The system of claim 15 wherein the examination questions are created by the instructor user substantially at the time of the creation of the assessment file.

18. The system of claim 15 wherein the student file is reviewed by the instructor user and assigned a grade.

19. The system of claim 18 wherein the grade is made available to the student user.

20. The system of claim 18 wherein the instructor user collates a plurality of grades obtained from reviewing a plurality of student files, and wherein the collated grades are made available to all student users associated with the course.

21. The system of claim 13 in which the file that the student is able to read is an assignment file created by the instructor user, and the student file created by the student user is a response to the assignment file.

22. The system of claim 8 wherein the dropbox file comprises a plurality of files transferred to the server computer from one or more student users associated with the course.

23. The system of claim 22 wherein the instructor user is provided with access to the files in the dropbox file, whereby the instructor user may download, edit and upload the files in the dropbox.

24. The system of claim 1 wherein a user is required to enter a login sequence into a user computer in order to be provided with access to course files associated with that user.

25. The system of claim 24 wherein the user is provided with access to all courses with which the user is associated after entry of the logon sequence.

26. The system of claim 25 wherein the user is provided with a web page comprising a plurality of course hyperlinks, each of said course hyperlinks associated with each course that the user has enrolled in.

27. The system of claim 26 wherein selection of a course hyperlink will provide the user with a web page associated with the selected course, the web page comprising a plurality of content hyperlinks to various content areas associated with the course.

28. The system of claim 27 wherein said content hyperlinks comprise an announcement area hyperlink, a course information hyperlink, a staff information hyperlink, a course documents hyperlink, an assignments hyperlink, a communications hyperlink, and a student tools hyperlink.

29. The system of claim 28 wherein selection of the announcement area hyperlink provides a web page comprising a group of course announcements.

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30. The system of claim 28 wherein selection of the course information hyperlink provides a web page comprising information regarding the associated course.

31. The system of claim 28 wherein selection of the staff information hyperlink provides a web page comprising data regarding the instructors of the associated course.

32. The system of claim 28 wherein selection of the course documents hyperlink provides a web page comprising a listing of documents associated with the course.

33. The system of claim 32 wherein the listing of course documents comprise active hyperlinks to the documents.

34. The system of claim 28 wherein selection of the assignments hyperlink provides a web page comprising a group of course assignments.

35. The system of claim 28 wherein selection of the communications hyperlink provides a web page comprising hyperlinks to a group of communication tools comprising an asynchronous communication tool and a synchronous communication tool.

36. A method for providing online education method for a community of users in a network based system comprising the steps of:

- a. establishing that each user is capable of having redefined characteristics indicative of multiple predetermined roles in the system and each role providing a level of access to and control of a plurality of course files;
- b. establishing a course to be offered online, comprising
 - i. generating a set of course files for use with teaching a course;
 - ii. transferring the course files to a server computer for storage; and
 - iii. allowing access to and control of the course files according to the established roles for the users according to step (a);
- c. providing a predetermined level of access and control over the network to the course files to users with an established role as a student user enrolled in the course; and
- d. providing a predetermined level of access and control over the network to the course files to users with an established role other than a student user enrolled in the course.

37. The method of claim 36 wherein at least one of the course files comprises a course assignment, further comprising the steps of:

- e) the student user creating a student file in response to the course assignment; and
- f) the student user transferring the student file to the server computer.

38. The method of claim 37 further comprising the steps of:

- g) the instructor user accessing the student file from the server computer;
- h) the instructor user reviewing the student file to determine compliance with the course assignment; and
- i) the instructor user assigning a grade to the student file as a function of the determination of compliance with the course assignment.

39. The method of claim 38 further comprising the step of the instructor user posting the grade to a file on the server computer accessible only to the student user with which the grade is associated.

40. The method of claim 38 further comprising the steps of the instructor repeating the steps (g), (h), and (i) for a plurality of student users that are enrolled in the course.

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41. The method of claim **40** further comprising the step of the instructor user performing a statistical analysis on the grades assigned to the plurality of student users.

42. The method of claim **41** further comprising the step of making results of the statistical analysis available to the student users enrolled in the course. 5

43. The method of claim **36** further comprising the step of providing an asynchronous communication tool accessible

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to student users enrolled in the course for enabling asynchronous communication amongst the student users.

44. The method of claim **36** further comprising the step of providing a synchronous communication tool accessible to student users enrolled in the course for enabling synchronous communication amongst the student users.

* * * * *



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90/008,330	11/17/2006	6988138		3192
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MCDERMOTT WILL & EMERY LLP				
600 13TH STREET, N.W.				
WASHINGTON, DC 20005-3096				
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			ART UNIT	PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.



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THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS

SOFTWARE FREEDOM LAW CENTER
1995 BROADWAY
17TH FLOOR
NEW YORK, NY 10023-5882

EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. 90/008330 95/000,199
PATENT NO. 6,988,138
ART UNI 3993

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified ex parte reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the ex parte reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

INTER PARTES REEXAMINATION COMMUNICATION

Control No.

95/000,199

Examiner

ROLAND G. FOSTER

Patent Under Reexamination

6988138

Art Unit

3992

90/008,330

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address. --

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS ACTION IS SET TO EXPIRE
☒ 2 MONTH(S) ☐ THIRTY DAYS FROM THE MAILING DATE OF THIS LETTER. EXTENSIONS
OF TIME FOR PATENT OWNER ARE GOVERNED BY 37 CFR 1.956.

Each time the patent owner responds to this Office action, the third party requester of the *inter partes* reexamination may once file written comments within a period of 30 days from the date of service of the patent owner's response. This 30-day time period is statutory (35 U.S.C. 314(b)(2)), and, as such, it cannot be extended. See also 37 CFR 1.947.

All correspondence relating to this *inter partes* reexamination proceeding should be directed to the **Central Reexamination Unit** at the mail, FAX, or hand-carry addresses given at the end of this Office action.

**OFFICE ACTION IN INTER PARTES
REEXAMINATION**

Control No.	Patent Under Reexamination	
95/000,199	6988138	
Examiner	Art Unit	
ROLAND G. FOSTER	3992	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address. --

Responsive to the communication(s) filed by:

Patent Owner on _____

Third Party(ies) on 1 December 2006

RESPONSE TIMES ARE SET TO EXPIRE AS FOLLOWS:

For Patent Owner's Response:

2 MONTH(S) from the mailing date of this action. 37 CFR 1.945. EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.956.

For Third Party Requester's Comments on the Patent Owner Response:

30 DAYS from the date of service of any patent owner's response. 37 CFR 1.947. NO EXTENSIONS OF TIME ARE PERMITTED. 35 U.S.C. 314(b)(2).

All correspondence relating to this inter partes reexamination proceeding should be directed to the **Central Reexamination Unit** at the mail, FAX, or hand-carry addresses given at the end of this Office action.

This action is not an Action Closing Prosecution under 37 CFR 1.949, nor is it a Right of Appeal Notice under 37 CFR 1.953.

PART I. THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☐ Notice of References Cited by Examiner, PTO-892
2. ☒ Information Disclosure Citation, PTO/SB/08
3. ☐ _____

PART II. SUMMARY OF ACTION:

- 1a. ☒ Claims 1-44 are subject to reexamination.
- 1b. ☐ Claims _____ are not subject to reexamination.
2. ☐ Claims _____ have been canceled.
3. ☐ Claims _____ are confirmed. [Unamended patent claims]
4. ☐ Claims _____ are patentable. [Amended or new claims]
5. ☒ Claims 1-44 are rejected.
6. ☐ Claims _____ are objected to.
7. ☐ The drawings filed on _____ ☐ are acceptable ☐ are not acceptable.
8. ☐ The drawing correction request filed on _____ is: ☐ approved. ☐ disapproved.
9. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119 (a)-(d). The certified copy has:
☐ been received. ☐ not been received. ☐ been filed in Application/Control No 95000199.
10. ☐ Other _____

DETAILED ACTION

I. SUMMARY

This Office action addresses claims 1-44 of United States Patent No. 6,988,138

B1 (hereafter the "Alcorn" patent), for which it has been determined:

- 1) in the 95/000,199 reexamination, regarding the Order mailed February 26, 2007 granting *inter partes* reexamination, that a substantial new question of patentability was raised in the request for *inter partes* reexamination, filed on December 1, 2006 (hereafter the "'199 Request"), and
- 2) in the 90/008,330 reexamination, regarding the Order granting *ex parte* reexamination mailed January 25, 2007, that a substantial new question of patentability was raised in the request for *ex parte* reexamination, filed on November 17, 2006 (hereafter the "'330 Request").

In the notice of merger, mailed March 17, 2008, a decision was made to merge the 95/000,199 and 90/008,330 reexamination proceedings. As a result, a single Office action on the merged proceeding follows.

II. REJECTIONS PROPOSED BY THE REQUESTER

The following ten categories of rejections were proposed on pages 1 and 2 of the Request.

From the 95/000,199 Proceeding (before Merger)

- Issue 1 Whether *Educom/NLII Instructional Management Systems Specification Document*, Ver. 0.5 (April 29, 1998) ("IMS Specification") anticipates, or when considered alone or in combination with other prior art, renders obvious claims 1-44 of the Alcorn patent.
- Issue 2 Whether Janison Solutions, *Web Training Toolbox Management Guide* (May 1999) ("Janison Web Training Management Guide") anticipates, or when considered alone or in combination with other prior art, renders obvious claims 1-44 of the Alcorn patent.
- Issue 3 Whether S.D. Benford, et al., *The Design Document for Ceilidh Version 2*, Learning Technology Research Computer Science Department University of Nottingham (Oct. 21, 1996) ("Ceilidh Design Document") anticipates, or when considered alone or in combination with other prior art, renders obvious claims 1-44 of the Alcorn patent.
- Issue 4 Whether Fred T. Hofstetter, *Serf User and Administrator's Guide Version 1.0*, University of Delaware (Jan. 1998) ("Serf User Guide") anticipates, or when considered alone or in combination

Art Unit: 3992

with other prior art, renders obvious claims 1-44 of the Alcorn patent.

- Issue 5 Whether *Topclass Version 2.0 Instructor's Guide* (March 1998) ("Topclass Instructor's Guide") anticipates, or when considered alone or in combination with other prior art, renders obvious claims 1-44 of the Alcorn patent.
- Issue 6 Whether Gilbert Paquette, *Modeling the Virtual Campus* (1995) ("Virtual Campus") anticipates, or when considered alone or in combination with other prior art, renders obvious claims 1-44 of the Alcorn patent.
- Issue 7 Whether various publications and patents disclosing rule based access control, in combination with other prior art, render obvious claims 1-44 of the Alcorn patent.
- Issue 8 Whether various publications and patents disclosing educational software environments, in combination with other prior art, render obvious claims 1-44 of the Alcorn patent.
- Issue 9 Whether the Earliest Effective Filing Date of Claims 1-44 of the Alcorn Patent is June 30, 2000.

Art Unit: 3992

From the 90/008,330 Proceeding (before Merger)

Issue 10 Whether TopClass Version 1.2.2b, Administrator's Guide (Ireland: WBT Systems, October 1997) ("TopClass Version 1.2 Administrator's Guide") anticipates, or when considered alone or in combination with other prior art, renders obvious claims 1-44 of the Alcorn patent.

**III. REJECTIONS PROPOSED IN THE REQUEST AND ADOPTED
(WITH MODIFICATION OR AS PROPOSED)
(ISSUES 1-6 AND 10)**

The proposed rejections identified in Issue 10 are adopted essentially proposed.

The proposed rejections identified in Issues 1-6 are adopted with modification.

The multiplicity of proposed rejections identified in Issues 1-6 and 10 raise an issue as to whether the rejections are cumulative to any particular proposed rejection. For example, all the publications identified in Issues 1-6 and 10 are directed to the implementing a classroom experience in a virtual, computer-networked environment. Nonetheless, said proposed rejections are adopted for the reasons discussed below and specifically regarding the '199 Request, in order to preserve the parties' appeal rights as to such proposed rejections. See MPEP § 2660.III.

IV. REJECTIONS PROPOSED IN THE REQUEST AND NOT ADOPTED (ISSUES 7-9)

The proposed rejections identified in Issues 7-9 are not adopted. See the claim rejections below for additional details.

V. CLAIM REJECTIONS

Issue 1

Summary of the IMS Specification

The IMS Specification is substantially similar to the invention taught in the Alcorn patent under reexamination. For example, the IMS Specification teaches a course-based system for providing to an educational community of users access to a plurality of online courses (p. 9, section 2.5.1 and page 38, section 3.6.4.3.2, including the figures).

The IMS Specification publication also teaches a plurality of user computers, with each user computer (client) being associated with a user of the system and with each user having predefined characteristics indicative of roles, such as student, instructor, and administrator (content provider) and thus having access to files associated with these differing roles. Specifically, see Figure 1 below, which is reproduced from page 17 of the IMS Specification.

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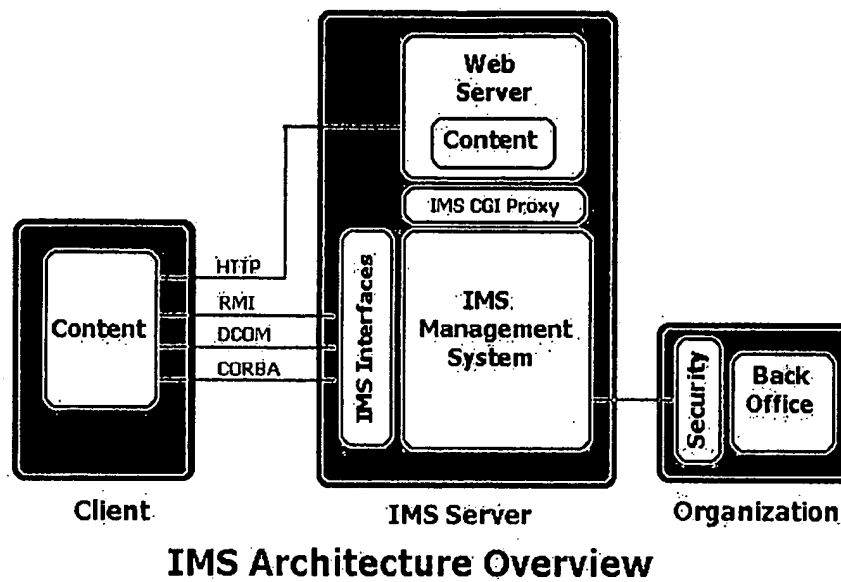


Figure 1. IMS Architecture

Furthermore, the IMS Specification teaches the following at pages 7 and 19 respectively:

There are several stakeholders who will be affected by the IMS. We have defined these stakeholders in terms of the different roles involved in the process of learning. These roles are often performed by the same stakeholder: someone who is a teacher may also play the role of a learner and vice versa; similarly, a content provider may also engage in activities associated with the role of a teacher.

Profiles are mobile, user-controlled collections of personal and educational data. Portfolio information may be stored or referenced within the profile. Preference information such as learning styles, default meta-data selections may be included. An IMS Profile for a user may include both learner-specific and author-specific information since an individual can be both a teacher in one context and a learner in another.

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The Proposed IMS Rejections

The proposed rejection asserts that the IMS Specification anticipates, or renders obvious, in view of various secondary references, claims 1-44 of the Alcorn patent. See pages 1, 9-16, and Appendix "B" to said '199 Request

As discussed above, the IMS Specification is substantially similar to the invention taught in the specification of the Alcorn patent under reexamination. Thus, the IMS Specification is a highly relevant reference.

The Proposed IMS Anticipatory Rejections Are Adopted With Modification

Specifically, the requester asserts that the IMS Specification anticipates claims 1, 2, 7, 9-15, 20, 21, 24, 25, 36, 37, 43, and 44 (page 10 of the '199 Request).

Due to the similarities between the IMS Specification and the Alcorn patent (as discussed above), the proposed anticipatory rejection is adopted with the following modifications. The examiner asserts that the IMS Specification additionally anticipates claims 18 and 19 as consistent with Appendix "B" to said '199 Request. See the claim rejections below for additional details.

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The Proposed IMS Obviousness Rejections Are Not Adopted

The requester also asserts that the IMS Specification renders obvious, by itself or in combination with various secondary references, claims 1-44 (page 10 of the '199 Request). The requester asserts in Appendix "B" however (as discussed above) that the IMS Specification anticipates claims 1, 2, 7, 9-15, 18-21, 24, 25, 36, 37, 43, and 44. Thus, Appendix "B" fails to clearly ascertain the differences between the claimed invention and the prior art. Thus, the proposed rejection fails to set forth a *prima facie* case of obviousness under the *Graham* factors for said claims.

The other proposed obviousness rejections rely upon multiple secondary references teaching similar and overlapping features, rendering the proposed rejections ambiguous as to which secondary reference is actually relied upon.

In addition, the other proposed obviousness rejections rely upon broad and conclusory statements that set forth a legal conclusion of obviousness (see pages 10-16 of the '199 Request). "Rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also KSR International Co. v. Teleflex Inc., 127 S.Ct. 1727, 1741 (2007). For example, the requester provides a universal motivation to render multiple claims obvious based on a generalized conclusion of "interoperability." See pages 10 and 11 of the '199 Request. In another example regarding the proposed claim 3 obviousness rejection, the requester argues that "it was

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well known in the art for educational systems, such as IMS, to include announcement files." Said statement does not explicitly set forth an analysis as to why it would have been obvious to combine a teaching, albeit well known, with the base reference.

Thus, the proposed obviousness rejections are not adopted.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 7, 9-15, 18-21, 24, 25, 36, 37, 43, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by IMS Specification.

This rejection was proposed by the third party requester in said '199 Request and is adopted with modification for the reasons discussed above. Thus, those portions of Appendix "B" that relate to claims 1, 2, 7, 9-15, 18-21, 24, 25, 36, 37, 43, and 44 are hereby incorporated by reference.

Issue 2

Summary of the Janison Solutions Management Guide

The Janison Solutions Management Guide is substantially similar to the invention taught in the Alcorn patent under reexamination. For example, the Web Training Management Guide teaches a course-based system for providing to an educational community of users access to a plurality of online courses (page 9).

The Web Training Management Guide publication also teaches a plurality of user computers, with each user computer being associated with a user of the system and with each user having predefined characteristics indicative of roles, such as student, instructor, and administrator, and thus having access to files associated with these differing roles. Specifically, see Figure 2 below, which is reproduced from page 26 of the Web Management Training Guide publication and which illustrates that each user is associated with a computer sufficient to execute a web client browser.

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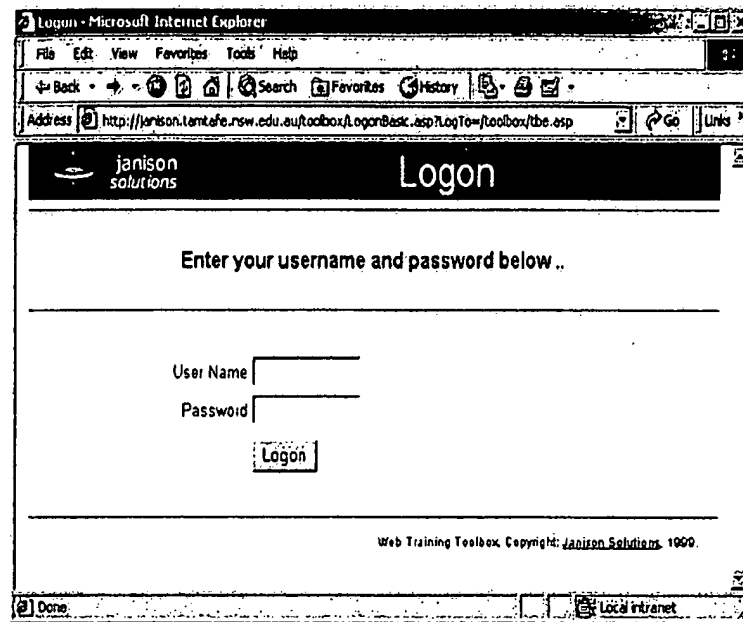


Figure 2. Management Guide Client (Web Browser Running on User Computer)

Regarding predefined roles, the Web Management Training Guide publication further teaches that the users can also be members of a student class, trainers, and administrators (pages 9 and 19) and access files associated with these differing roles (page 7).

The Proposed Janison Rejections

The proposed rejection asserts that the Janison Solutions Management Guide anticipates, or renders obvious, in alone or in combination with other prior art, claims 1-44 of the Alcorn patent. See pages 2, 16 and 17 and Appendix "C" to said '199 Request.

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As discussed above, said Janison publication is substantially similar to the invention taught in the specification of the Alcorn patent under reexamination. Thus, the Janison publication is a highly relevant reference.

The Proposed Janison Anticipatory Rejections Are Not Adopted

The proposed rejection asserts that the Janison Solutions Management Guide anticipates certain claims of the Alcorn patent. See pages 2, 16 and 17 and Appendix "C" to said '199 Request. The Janison Solutions Management Guide is similar to the Alcorn patent as discussed above. The requester however provides no detail on how a single reference, the Janison Solutions Management Guide, anticipates any claims. Indeed Appendix "C" generally relies upon not only the Janison Solutions Management Guide, but also upon Janison Solutions, Web Training Toolbox, Getting Started, June 1999 (hereafter "Janison Web Training Getting Started"). For example, see the proposed claim 1 rejection on pages 1-6 of Appendix "C". Thus, the proposed anticipatory rejection is not adopted.

The Proposed Janison Obviousness Rejections Are Adopted with Modification

The requester also asserts that the Janison Solutions Management Guide renders obvious, by itself or in combination with various secondary references, claims 1-30 and 32-44 of the Alcorn patent (page 17 of the '199 Request).

The proposed 103 rejections however, as formulated in Appendix "C", fail to set forth any reasoning regarding legal conclusions of obviousness (see pages 10-16 of the

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'199 Request). "[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007).

Thus, the proposed obviousness rejections are adopted with the following modifications: the examiner adds articulated reasoning to support the legal conclusion of obviousness. See the claim rejections below for additional details.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 1-4, 6-18, 21, 22, 24-30, 32-38, 40, 43, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Janison Solutions Management Guide in view of the Janison Solutions, Web Training Toolbox, Getting Started, June 1999 (hereafter "Janison Web Training Getting Started").

This rejection was proposed by the third party requester in said '199 Request and is adopted with modification for the reasons discussed above. Thus, page 17 of the '199 Request and those pages of Appendix "B" that relate to claims 1-4, 6-18, 21, 22, 24-38, 40, 43, and 44 are hereby incorporated by reference.

In addition, the examiner further notes that each element of the claimed inventions is taught by either the Janison Solutions Management Guide or the Janison Web Training Getting Started publication. Thus, the claimed invention is merely a combination of old elements, and in combination each element merely would have performed the same functions as it did separately. This is especially the case since both the Management Guide and the Getting Started publication are both directed to the same system. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." KSR Intern. Co. V. Teleflex Inc., 127 S.Ct. 1727, 1749 (2007). In addition, one of ordinary skill in the art, when analyzing the Management Guide base reference, would have looked to a publication describing the same Janison system for additional teachings.

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Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Janison Solutions Management Guide in view of the Janison Web Training Getting Started, and further in view of the User Guide to Interactive WWW Ceilidh, Provisional Version 23, September 1996 ("Interactive WWW Ceilidh") and S.D. Benford et al., Installer's Guide to Ceilidh (2.6), Learning Technology Research Computer Science Department University of Nottingham, Revision for Ceilidh 2.6, Jan. 23, 1997 ("Installer's Guide to Ceilidh").

This rejection was proposed by the third party requester in said Request and is adopted with modification for the reasons discussed above. Thus, page 17 of the Request and pages 8 and 9 of Appendix "C" that relate to claim 5 are hereby incorporated by reference.

In addition, the examiner further notes that each element of the claimed inventions is taught by either the Janison publications or the Ceilidh publications. Thus, the claimed invention is merely a combination of old elements, and in combination each element merely would have performed the same functions as it did separately (e.g., a file that contains staff information). Thus, one of ordinary skill in the art would have recognized that the results of the combination were predictable. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." KSR Intern. Co. V. Teleflex Inc., 127 S.Ct. 1727, 1749 (2007). In addition, the combination relate to implementing a classroom environment using modern technology (e.g., making staff information available to

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students using a computer files rather than the older method of posting class staff information in a catalog or public bulletin board). The combination is an adaptation of an old idea (implementing a classroom environment) using newer technology (World Wide Web network of computers) that is commonly available and understood in the art and thus obvious. Leapfrog Enterprises, Inc. v. Fisher-Price, Inc., 485 F.3d 1157, 1162 (Fed. Cir. 2007).

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Janison Solutions Management Guide in view of the Janison Web Training Getting Started, and further in view of the S.D. Benford et al., Teacher's Guide to Ceilidh 2.7, Learning Technology Research Computer Science Department University of Nottingham, Oct. 16, 1997 ("Teacher's Guide to Ceilidh") and S.D. Benford et al., Student's Guide to Ceilidh Version 2.5, Learning Technology Research Computer Science Department University of Nottingham, September 16, 1997 ("Student's Guide to Ceilidh").

This rejection was proposed by the third party requester in said '199 Request and is adopted with modification for the reasons discussed above. Thus, page 17 of the '199 Request and pages 14-18 of Appendix "C" that relate to claims 19 and 20 are hereby incorporated by reference.

In addition, the examiner further notes that each element of the claimed inventions is taught by either the Janison publications or the Ceilidh publications. Thus, the claimed invention is merely a combination of old elements, and in combination each

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element merely would have performed the same functions as it did separately (e.g., making a grade available to a user and the instructor collating and reviewing a plurality of grades). Thus, one of ordinary skill in the art would have recognized that the results of the combination were predictable. “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” KSR Intern. Co. V. Teleflex Inc., 127 S.Ct. 1727, 1749 (2007). In addition, the combination relate to implementing a classroom environment using modern technology (e.g., making grade information available via the World Wide Web rather than the older method of using a grade report card). The combination is an adaptation of an old idea (implementing a classroom environment) using newer technology (World Wide Web network of computers) that is commonly available and understood in the art and thus obvious. Leapfrog Enterprises, Inc. v. Fisher-Price, Inc., 485 F.3d 1157, 1162 (Fed. Cir. 2007).

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Janison Solutions Management Guide in view of the Janison Web Training Getting Started, and further in view of the S.D. Benford et al., The Design Document for Ceilidh Version 2, Learning Technology Research Computer Science Department University of Nottingham, Oct. 21, 1996 (“Design Document for Ceilidh”).

This rejection was proposed by the third party requester in said ‘199 Request and is adopted with modification for the reasons discussed above. Thus, page 17 of the ‘199

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Request and page 20 of Appendix "C" that relate to claim 23 are hereby incorporated by reference.

In addition, the examiner further notes that each element of the claimed inventions is taught by either the Janison publications or the Ceilidh publication. Thus, the claimed invention is merely a combination of old elements, and in combination each element merely would have performed the same functions as it did separately (e.g., using a dropbox file to relay information between the student and instructor). Thus, one of ordinary skill in the art would have recognized that the results of the combination were predictable. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." KSR Intern. Co. V. Teleflex Inc., 127 S.Ct. 1727, 1749 (2007). In addition, the combination relate to implementing a classroom environment using modern technology (e.g., using a dropbox file structure that allows information transfer via the world wide web rather than using an actual dropbox to physically transfer information). The combination is an adaptation of an old idea (implementing a classroom environment) using newer technology (World Wide Web network of computers) that is commonly available and understood in the art and thus obvious. Leapfrog Enterprises, Inc. v. Fisher-Price, Inc., 485 F.3d 1157, 1162 (Fed. Cir. 2007).

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Janison Solutions Management Guide in view of the Janison Web Training Getting Started, and further in view of the Topclass Instructor's Guide.