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(54) INEXPENSIVE COMPUTER-AIDED LEARNING METHODS AND APPARATUS FOR LEARNERS

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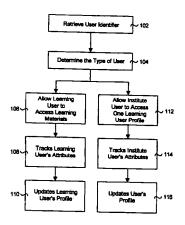
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(57) ABSTRACT

A computer-aided learning method and apparatus for a learning user to learn materials inexpensively. Not only does the apparatus provide the user the freedom as to where and when to learn, and the guidance as to what to learn, the apparatus also reduces a significant hurdle to learning-Tuition. The apparatus retrieves a user identifier entered by the user, and determines whether the user is a learning user or an institute user. If the user is a learning user, the apparatus allows the user to access information regarding learning materials. If the user is an institute user, the apparatus permits the user to access information regarding at least one learning user. The institute user might be interested to use the apparatus to recruit employees to fill job openings. A learning user pays significantly less than an institute user to access information, so as to encourage the learning user to work on learning materials. The apparatus can also track and update information regarding the users.



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EX PARTE REEXAMINATION CERTIFICATE ISSUED UNDER 35 U.S.C. 307

THE PATENT IS HEREBY AMENDED AS INDICATED BELOW.

Matter enclosed in heavy brackets [] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made 10 to the patent.

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

The patentability of claims 37-52 is confirmed.

Claims 1, 3, 10, 27, 31, 55, 56 and 70 are cancelled.

Claims 2, 4, 8, 9, 11, 14, 15, 22, 24, 25, 28, 29, 32, 33, 53, 20 58, 66-69, 71, 74, 80, 82 and 84 are determined to be patentable as amended.

Claims 5-7, 12, 13, 16-21, 23, 26, 30, 34-36, 54, 57, 59-65, 72, 73, 75-79, 81, 83 and 85-86, dependent on an amended claim, are determined to be patentable.

- 2. A computer-aided learning method [as recited in claim 1 further comprising the steps of: for a user comprising the steps of:
 - retrieving, by a first computer, materials related to the 30 user; and
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user, wherein the institute user accesses the mate- 35 rials to identify a learning user for filling a job position:
 - tracking, by the computer, materials regarding the user;
 - updating, by the computer, materials regarding the user 40 based on the tracked materials, and
 - wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested;
 - wherein the materials accessed can be retrieved by at 45 least one of the users from another computer, which is connected to the first computer through a network;
 - wherein the institute user pays to access materials regarding the at least one learning user; a learning user is allowed to access materials on a subject to learn and 50 to work on, to perform a task; materials on at least one of the users can be tracked and updated; and
 - wherein the method further comprises ascertaining materials for a learning user to learn based on an attribute of the learning user.
- 4. A computer-aided learning method as recited in claim [3] 2 wherein [the step of ascertaining] at least a portion of the materials ascertained depends on the user's educational background, work experience and preferences.
- 7] for a user comprising the steps of:
 - retrieving, by a first computer, materials related to the
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an 65 institute user, as determined based on an identifier of the user;

- tracking, by the computer, materials regarding the user;
- updating, by the computer, materials regarding the user based on the tracked materials,
- wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested;
- wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
- wherein the institute user pays to access materials regarding the at least one learning user; a learning user is allowed to access materials on a subject to learn and to work on, to perform a task; and materials on at least one of the users can be tracked and updated;
- wherein the method further comprises ascertaining materials for a learning user to learn based on an attribute of the learning user;
- wherein if the user is a learning user, the step of tracking includes tracking the user's learning activities; wherein the user is learning features of a product and the activities tracked include the one or more features the user worked on; and
- wherein the method is implemented at a Web site.
- A computer-aided learning method [as recited in claim 2] for a user comprising the steps of:
 - retrieving, by a first computer, materials related to the
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of
 - tracking, by the computer, materials regarding the user: and
 - updating, by the computer, materials regarding the user based on the tracked materials,
 - wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested:
 - wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
 - wherein the institute user pays to access materials regarding the at least one learning user; a learning user is allowed to access materials on a subject to learn and to work on, to perform a task; and materials on at least one of the users can be tracked and updated;
 - wherein the method further comprises ascertaining materials for a learning user to learn based on an attribute of the learning user; and
 - wherein a learning user may restrict institute users from accessing certain materials regarding the learning user.
- 11. A computer-aided learning method as recited in claim [10] 2 further comprising the step of querying materials on 55 learning users to identify a learning user to fill the job position based on criteria set by the institute user.
 - 14. A computer-aided learning method as recited in claim [10] 2 wherein the method is implemented at a Web site.
- 15. A computer-aided learning method [as recited in claim 8. A computer-aided learning method [as recited in claim 60 2 further comprising the step of] for a user comprising the
 - retrieving, by a first computer, materials related to the
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user;

- tracking, by the computer, materials regarding the user; updating, by the computer, materials regarding the user based on the tracked materials; and
- allowing the user to advertise if the user is an institute user,
- wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested;
- wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network; and
- wherein the institute user pays to access materials regarding the at least one learning user; a learning user is allowed to access materials to learn; and materials on at least one of the users can be tracked and updated.
- 22. A computer-aided learning method [as recited in claim 2] for a user comprising the steps of:
 - retrieving, by a first computer, materials related to the user:
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user;
 - tracking, by the computer, materials regarding the user; 25 and
 - updating, by the computer, materials regarding the user based on the tracked materials,
 - wherein if the user is the institute user, the institute user can learn about the at least one learning user in an 30 area the institute user is interested;
 - wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
 - wherein the institute user pays to access materials regarding the at least one learning user; a learning user is allowed to access materials on a subject to learn and to work on, to perform a task; and materials on at least one of the users can be tracked and updated;
 - wherein the method further comprises ascertaining materials for a learning user to learn based on an attribute of the learning user; and
 - wherein the materials to learn include materials on features of a product introduced by an institute user.
- 24. A computer-aided learning method [as recited in claim 45 1] for a user comprising the steps of:
 - retrieving, by a first computer, materials related to the user; and
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user:
 - wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested;
 - wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
 - wherein the institute user pays to access materials regarding the at least one learning user; a learning user is allowed to access materials on a subject to learn and to work on, to perform a task; and materials on at least one of the users can be tracked and updated;
 - wherein the method further comprises ascertaining materials for a learning user to learn based on an attribute of the learning user; and

- wherein materials regarding the at least one learning user is categorized into confidential and nonconfidential such that confidential materials are not accessible by the institute user without the at least one learning user's express consent.
- 25. A computer-aided learning apparatus for a user comprising:
 - A retriever configured to retrieve materials related to the user; and
 - A determinator configured to permit the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user;
- wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested;
 - wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the apparatus through a network; [and]
- wherein the institute user pays to access materials regarding the at least one learning user; a learning user is allowed to access materials on a subject to learn and to work on, to perform a task; and materials on at least one of the users can be tracked and updated;
- wherein the apparatus further comprises a learning materials ascertainer configured to ascertain materials for a learning user to learn based on an attribute of the learning user; and
- wherein materials regarding the at least one learning user are categorized into confidential and non-confidential such that confidential materials are not accessible by the institute user without the at least one learning user's express consent.
- 28. A computer-aided learning apparatus [as recited in claim 27] for a user comprising:
 - a retriever configured to retrieve materials related to the user; and
 - a determinator configured to permit the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user, wherein the institute user accesses the materials to identify a learning user for filling a job position;
 - wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested;
 - wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the apparatus through a network;
 - wherein the institute user pays to access materials regarding the at least one learning user; a learning user is allowed to access materials on a subject to learn and to work on, to perform a task; and materials on at least one of the users can be tracked and updated; and
 - wherein the apparatus further comprises a learning materials ascertainer configured to ascertain materials for a learning user to learn based on an attribute of the learning user.
- 29. A computer-aided learning apparatus [as recited in claim 28 further] for a user comprising:
 - a retriever configured to retrieve materials related to the user:
 - a determinator configured to permit the user to access materials regarding at least one learning user if the

- user is an institute user, as determined based on an identifier of the user;
- a tracker configured to track materials regarding the user;
- an updater configured to update materials regarding the suser based on the tracked materials;
- a learning materials ascertainer configured to ascertain materials for the user to learn if the user is a learning user; and
- an advertisement generator configured to allow the user to advertise if the user is an institute user;
- wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested:
- wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the apparatus through a network;
- wherein the institute user pays to access materials regarding the at least one learning user; a learning user is allowed to access materials to learn; and materials on at least one of the users can be tracked and updated; and
- wherein the institute user accesses the materials to identify a learning user for filling a job position.
- 32. A computer-aided learning method for a user comprising:
 - receiving, by a receiving computer, materials entered by the user: and
 - presenting, by the receiving computer, materials accessed by the user;
 - wherein the receiving computer is coupled to another computer through a network, and the another computer, including a Web server, retrieves materials related to the user; permits the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user; [wherein] if the user is the institute user, [the institute user can] allows the user to learn about the at least one learning user in an area the institute user is interested; and allows the user to access materials on a subject to learn if the user is a learning user, who pays less than an institute user to access materials [, so as to encourage the learning user to work on materials to learn]; and 45
 - wherein materials on at least one of the users can be tracked and updated; the learning user allowed to access materials works for the institute user, the learning user is tested, and the learning progress of the learning user is monitored; at least a portion of the materials to learn depends on an objective of the institute user; and at least a portion of the materials to learn is from the institute user.
- 33. A computer-aided learning method [as recited in claim 32] for a user comprising:
 - receiving, by a receiving computer, materials entered by the user; and
 - presenting, by the receiving computer, materials accessed by the user;
 - wherein the receiving computer is coupled to another computer through a network, and the another computer retrieves materials related to the user; permits the user to access materials regarding at least one learning user if the user is an institute user, as determined based on 65 an identifier of the user; wherein if the user is the institute user, the institute user can learn about the at

- least one learning user in an area the institute user is interested; and allows the user to access materials to learn if the user is a learning user, who pays less than an institute user to access materials, so as to encourage the learning user to work on materials to learn; and materials on at least one of the users can be tracked and updated; and
- wherein materials accessed by a learning user include materials on a product of an institute user, with advertisement related to that institute user also presented if the materials are accessed.
- 53. A computer-aided learning method for a user comprising the steps of:
 - retrieving, by a first computer, materials related to the user; and
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user:
 - wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested;
 - wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
 - wherein the institute user pays so that materials can be accessed;
 - wherein a learning user is allowed to access materials on a subject to learn and to work on, to perform a task;
 - wherein the method further comprises ascertaining materials for a learning user to learn based on an attribute of the learning user;
- wherein the method further comprises searching the materials to learn, to identify materials under a title;
- wherein materials on at least one of the users can be monitored and updated; and
- wherein the first computer includes a Web server.
- 58. A computer-aided learning method [as recited in claim 53] for a user comprising the steps of:
 - retrieving, by a first computer, materials related to the user; and
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user;
 - wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested;
 - wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
 - wherein the institute user pays so that materials can be accessed:
 - wherein a learning user is allowed to access materials on a subject to learn and to work on, to perform a task;
 - wherein the method further comprises ascertaining materials for a learning user to learn based on an attribute of the learning user;
 - wherein materials on at least one of the users can be monitored and updated;
 - wherein the first computer includes a Web server; and wherein at least a portion of the materials to learn depends on an interest of the learning user allowed to access materials.

- 66. A computer-aided learning method [as recited in claim 53] for a user comprising the steps of:
 - retrieving, by a first computer, materials related to the user; and
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user;
 - wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested;
 - wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
 - wherein the institute user pays so that materials can be accessed:
 - wherein a learning user is allowed to access materials on a subject to learn and to work on, to perform a task;
 - wherein the method further comprises ascertaining materials for a learning user to learn based on an attribute of the learning user;
 - wherein materials on at least one of the users can be monitored and updated;
 - wherein the first computer includes a Web server; and wherein at least a portion of the materials to learn is from the institute user.
- 67. A computer-aided learning method [as recited in claim 53 further comprising] for a user comprising the steps of: retrieving, by a first computer, materials related to the user;
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of 35 the user; and
 - identifying by the institute user a person to do a job depending on an objective of the institute user;
 - wherein if the user is the institute user, the institute user 40 can learn about the at least one learning user in an area the institute user is interested;
 - wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
 - wherein the institute user pays so that materials can be accessed;
 - wherein a learning user is allowed to access materials on a subject to learn and to work on, to perform a task;
 - wherein the method further comprises ascertaining materials for a learning user to learn based on an attribute
 of the learning user;
 - wherein materials on at least one of the users can be monitored and updated; and
 - wherein the first computer includes a Web server.
- 68. A computer-aided learning method [as recited in claim 53] for a user comprising the steps of:
 - retrieving, by a first computer, materials related to the user; and
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user;
 - wherein if the user is the institute user, the institute user 65 can learn about the at least one learning user in an area the institute user is interested;

- wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
- wherein the institute user pays so that materials can be accessed:
- wherein a learning user is allowed to access materials on a subject to learn and to work on, to perform a task;
- wherein the method further comprises ascertaining materials for a learning user to learn based on an attribute of the learning user;
- wherein materials on at least one of the users can be monitored and updated;
- wherein the first computer includes a Web server; and
- wherein the learning user allowed to access materials is monitored, and the method further comprises identifying by the institute user that learning user to do a job based on materials regarding that learning user.
- 69. A computer-aided learning method [as recited in claim 53] for a user comprising the steps of:
 - retrieving, by a first computer, materials related to the user; and
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user;
 - wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested:
 - wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
 - wherein the institute user pays so that materials can be accessed:
 - wherein a learning user is allowed to access materials on a subject to learn and to work on, to perform a task;
 - wherein the method further comprises ascertaining materials for a learning user to learn based on an attribute of the learning user;
 - wherein materials on at least one of the users can be monitored and updated;
 - wherein the first computer includes a Web server; and wherein at least a portion of the materials to learn allows the learning user to follow a scenario to solve a problem
- 71. A computer-aided learning method as recited in claim [70] 53 further comprising prioritizing the searched results to be presented.

in a job.

- 74. A computer-aided learning method [as recited in claim 73] for a user comprising the steps of:
 - retrieving, by a first computer, materials related to the
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user;
 - wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested;
 - wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
 - wherein the institute user pays so that materials can be accessed;

- wherein a learning user is allowed to access materials to learn:
- wherein materials on at least one of the users can be monitored and updated;
- wherein the first computer includes a Web server;
- wherein the learning user allowed to access materials, works for the institute user; wherein the method further comprises testing that learning user; and wherein the learning progress of that learning user is monitored;
- wherein at least a portion of the materials to learn depends on an objective of the institute user, and
- wherein at least a portion of the materials to learn is from the institute user.
- 80. A computer-aided learning method [as recited in claim 15 73] for a user comprising the steps of:
 - retrieiving, by a first computer, materials related to the user:
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user;
 - wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested;
 - wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
 - wherein the institute user pays so that materials can be 30 accessed:
 - wherein a learning user is allowed to access materials to learn;
 - wherein materials on at least one of the users can be monitored and updated;
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 - wherein the first computer includes a Web server;
 - wherein the learning user allowed to access materials, works for the institute user; wherein the method further comprises testing that learning user; and wherein the learning progress of that learning user is monitored;
 - wherein at least a portion of the materials to learn is modularized as learning objects,
 - wherein at least a portion of the materials to learn is for a customer of the institute user to learn, and
 - wherein at least a portion of the materials to learn, depends on a job of that learning user.
- 82. A computer-aided learning method [as recited in claim 73] for a user comprising the steps of:
 - retrieving, by a first computer, materials related to the user;
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of 55 the user:
 - wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested;

- wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
- wherein the institute user pays so that materials can be accessed;
- wherein a learning user is allowed to access materials to learn:
- wherein materials on at least one of the users can be monitored and updated;
- wherein the first computer includes a Web server;
- wherein the learning user allowed to access materials, works for the institute user; wherein the method further comprises testing that learning user; and wherein the learning progress of that learning user is monitored;
- wherein at least a portion of the materials to learn depends on an interest of that learning user, and
- wherein at least a portion of the materials to learn depends on a job of that learning user.
- 84. A computer-aided learning method [as recited in claim 73] for a user comprising the steps of:
 - retrieving, by a first computer, materials related to the user;
 - permitting, by the computer, the user to access materials regarding at least one learning user if the user is an institute user, as determined based on an identifier of the user:
 - wherein if the user is the institute user, the institute user can learn about the at least one learning user in an area the institute user is interested;
- wherein the materials accessed can be retrieved by at least one of the users from another computer, which is connected to the first computer through a network;
- wherein the institute user pays so that materials can be accessed:
- wherein a learning user is allowed to access materials to learn;
- wherein materials on at least one of the users can be monitored and updated;
- wherein the first computer includes a Web server;
- wherein the learning user allowed to access materials, works for the institute user; wherein the method further comprises testing that learning user; and wherein the learning progress of that learning user is monitored;
- wherein at least a portion of the materials to learn is for a customer of the institute user to learn,
- wherein at least a portion of the materials to learn depends on an interest of that learning user, and
- wherein at least a portion of the materials to learn depends on an area related to the background of that learning user.

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