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(54) Title: LABOR MARKETPLACE EXCHANGE COMPUTING SYSTEMS AND METHODS

(57) Abstract: A labor marketplace exchange (LME) computing system and method are provided. The LME computing system communicates with communications devices of service providers and service users. The LME computing system receives service provider profile data from the service providers. Service users can submit service queries to the LME computing system. Based on the parameters of the service query, service providers are identified by the LME computing system. A service request is then sent to a service provider identified by the LME computing system and selected by the service user.
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LABOR MARKETPLACE EXCHANGE COMPUTING SYSTEMS AND METHODS

BACKGROUND

[0001] Unemployment and underemployment are persistent drags on economic growth. For a number of reasons, including increased government regulation, the effects of the Affordable Care Act, and excessive employment related litigation, businesses can be hesitant to hire part-time and full-time workers. Compliance, legal defense, benefits, recruiting and onboarding costs that are needed to put a worker on the payroll can discourage employers from committing to additional full and part-time employees. These challenges are compounded in industries which experience regular fluctuations in labor requirements, such as construction and tax accounting, for example. Many organizations experience periods when they carry a larger work force than may be required or, more likely, too few providers when they are required.

BRIEF DESCRIPTION OF THE DRAWINGS

[0002] It is believed that certain embodiments will be better understood from the following description taken in conjunction with the accompanying drawings, in which like references indicate similar elements and in which:

[0003] FIG. 1 depicts a simplified block diagram of a non-limiting example of a labor market exchange (LME) computing system.

[0004] FIG. 2 depicts an exemplary environment established by the LME computing system of FIG. 1.

[0005] FIGS. 3-17 depict exemplary simplified user interfaces that can be generated by the LME computing system of FIGS. 1-2.

[0006] FIG. 18 depicts an example message sequence chart in accordance with one non-limiting embodiment.
FIG. 19 is a simplified flow diagram of at least one embodiment of a method for matching a service user to a service provider that can be executed by the LME computing system of FIGS. 1 and 2.

**DETAILED DESCRIPTION**

Various non-limiting embodiments of the present disclosure will now be described to provide an overall understanding of the principles of the structure, function, and use of systems and methods for providing a labor marketplace exchange to match service users and service providers. One or more examples of these non-limiting embodiments are illustrated in the selected examples disclosed and described in detail with reference made to FIGS. 1-19 in the accompanying drawings. Those of ordinary skill in the art will understand that systems, apparatuses, and methods specifically described herein and illustrated in the accompanying drawings are non-limiting embodiments. The features illustrated or described in connection with one non-limiting embodiment may be combined with the features of other non-limiting embodiments. Such modifications and variations are intended to be included within the scope of the present disclosure.

The systems, apparatuses, devices, and methods disclosed herein are described in detail by way of examples and with reference to the figures. The examples discussed herein are examples only and are provided to assist in the explanation of the apparatuses, devices, systems and methods described herein. None of the features or components shown in the drawings or discussed below should be taken as mandatory for any specific implementation of any of these the apparatuses, devices, systems or methods unless specifically designated as mandatory. In addition, elements illustrated in the figures are not necessarily drawn to scale for simplicity and clarity of illustration. For ease of reading and clarity, certain components, modules, or methods may be described solely in connection with a specific figure. In this disclosure, any identification of specific techniques, arrangements, etc. are either related to a specific example presented or are merely a general description of such a technique, arrangement, etc. Identifications of specific details or examples are not intended to be, and should not be, construed as mandatory or limiting unless specifically designated as such. Any failure to specifically describe a combination or sub-combination of components should not be understood
as an indication that any combination or sub-combination is not possible. It will be appreciated that modifications to disclosed and described examples, arrangements, configurations, components, elements, apparatuses, devices, systems, methods, etc. can be made and may be desired for a specific application. Also, for any methods described, regardless of whether the method is described in conjunction with a flow diagram, it should be understood that unless otherwise specified or required by context, any explicit or implicit ordering of steps performed in the execution of a method does not imply that those steps must be performed in the order presented but instead may be performed in a different order or in parallel.

10010] Reference throughout the specification to "various embodiments," "some embodiments," "one embodiment," "some example embodiments," "one example embodiment," or "an embodiment" means that a particular feature, structure, or characteristic described in connection with any embodiment is included in at least one embodiment. Thus, appearances of the phrases "in various embodiments," "in some embodiments," "in one embodiment," "some example embodiments," "one example embodiment, or "in an embodiment" in places throughout the specification are not necessarily all referring to the same embodiment. Furthermore, the particular features, structures or characteristics may be combined in any suitable manner in one or more embodiments.

[0011] Throughout this disclosure, references to components or modules generally refer to items that logically can be grouped together to perform a function or group of related functions. Like reference numerals are generally intended to refer to the same or similar components. Components and modules can be implemented in software, hardware, or a combination of software and hardware. The term "software" is used expansively to include not only executable code, for example machine-executable or machine-interpretible instructions, but also data structures, data stores and computing instructions stored in any suitable electronic format, including firmware, and embedded software. The terms "information" and "data" are used expansively and includes a wide variety of electronic information, including executable code; content such as text, video data, and audio data, among others; and various codes or flags. The terms "information," "data," and "content" are sometimes used interchangeably when permitted by context. It should be noted that although for clarity and to aid in understanding, some examples discussed herein might describe specific features or functions as part of a specific
component or module, or as occurring at a specific layer of a computing device (for example, a hardware layer, operating system layer, or application layer), those features or functions may be implemented as part of a different component or module or operated at a different layer of a communication protocol stack. Those of ordinary skill in the art will recognize that the systems, apparatuses, devices, and methods described herein can be applied to, or easily modified for use with, other types of equipment, can use other arrangements of computing systems such as client-server distributed systems, and can use other protocols, or operate at other layers in communication protocol stacks, than are described.

10012] The presently disclosed systems, methods, and apparatuses can generally provide a labor marketplace exchange (LME), sometimes referred to as an on-demand labor management system. In some embodiments, an LME is hosted by a service provider and is accessible to both service providers (e.g., people looking for work) and service users (e.g., people or entities with a need for service) to allow for the matching of the service providers to the service users. Such LME can, in some embodiments, connect service providers to service users in substantially real-time, thus allowing service users to access an on-demand supply of labor.

[0013] An on-demand labor management system in accordance with the present disclosure can, among other benefits, allow for greater flexibility and adjustment for time-sensitive hires. For example, service providers can be given more control over their schedule, the type of work they do, as well as other types of labor preferences. With the traditional work week and schedule falling out of favor as people seek more flexibility and autonomy in their work schedule, an LME in accordance with the present disclosure can allow for service providers to work on their own time and makes them selectively available to those seeking their labor.

[0014] As described in more detail below, an LME in accordance with the presently disclosed systems, methods, and apparatuses can enable users, both commercial and/or non-commercial, in need of a service to quickly and conveniently match with a service provider on either a scheduled or an on-demand basis. Matches between a service user and a service provider can be based on any number of factors and/or parameters, such as service user preferences, job details, and preferences and background of the service providers. An LME can facilitate communication between service user and service provider and can also facilitate a payment
function and a rating function. The LME can also utilize geolocation information to aid in providing matches to a service user as well as provide the service user with substantially real-time updates of the service provider’s geolocation position.

[0015] As discussed in more detail below, systems, methods, and apparatuses are disclosed in which a service user can select from a group of service providers who meet minimum requirements. Using filters, or other searching or matching techniques, these service providers can be drawn from a large database of available service providers. The service user can then select the service provider they wish to perform the labor and communicate with that service provider through the LME platform. In some embodiments service users can geospatially track service providers as they travel to and arrive and complete the job requested. Furthermore, service users can rate service providers on the quality of their work and/or other metrics. These ratings can become part of the service provider’s profile and can be factored into the matching system in future transactions.

[0016] Furthermore, as described in more detail below, systems, methods, and apparatuses are disclosed in which service providers can each maintain a profile which can include, but is not limited to, skills, education, certifications, licenses, preferred wage, and/or ratings from previous jobs. In some embodiments, service providers can set their availability in substantially real-time to indicate if he or she is available on-demand for immediate service requests. Additionally or alternatively, service providers can set their calendars for availability in the future and manage service requests.

[0017] Generally, an LME in accordance with the present disclosure can provide a platform for both a service user and a service provider to complete labor transactions based on service provider qualifications and service user needs. The service user and service provider can interact with the LME through any suitable user interfaces, such as a mobile application (sometimes referred to as an "app") executing on a mobile communications device, a laptop computer, a mobile computing device, a handheld computer, a smart phone, a tablet computer, a personal digital assistant, and the like. Additionally or alternatively, the LME can be accessed through a web-based interface that can be provided on any suitable type of networked device,
such as a mobile computing device, a desktop computer, a smart TV, a gaming system, and the like.

[0018] An example operational scenario is provided below to illustrate a non-limiting example of an LME in accordance with the present disclosure. While the exemplary scenario is provided in the context of a construction worker seeking to find labor for him to perform, it is to be understood that an LME in accordance with the present disclosure can be used to facilitate the matching of a wide array of service provider types to a wide array of service users. For example, in some implementations, a corporate-based service user can utilize an LME to identify potential service providers to perform specialized or unspecialized tasks for a corporation (e.g., clerical tasks, retail tasks, catering tasks, etc.). In other implementations, an industrial-based service user can utilize an LME to identify potential service providers to perform industrial tasks (e.g., manual labor, delivery, cleaning, etc.). In other implementations, a residential-based service user can utilize an LME to identify potential service providers to perform domestic or housekeeping tasks for the user (e.g., babysitting, lawn care, handyman services, etc.). As is to be appreciated, a wide array of other types of service providers can utilize an LME without departing from the scope of the present disclosure.

[0019] In one example implementation, a service provider, such as a construction worker, desires to earn extra income but is not currently employed by a particular construction company. The construction worker can create a profile on an LME in accordance with the present disclosure and enter information that satisfies all required fields and enter any additional fields they choose to complete during an account creation process. The service provider can then select the times and dates he or she would be available to work in the future through a calendaring functionality. In some embodiments, the service provider can make himself or herself available for on-demand labor through activation of an on-demand indicator provided by the LME. The LME can store this availability information, along with availability information from other services providers in suitable data stores.

[0020] Continuing with the example scenario, a service user (e.g., a construction company, general contractor, etc.) is in need of manpower to complete a job. The service user can create a user profile on the LME and disclose can general information about the company
and its selection preferences including, but not limited to, preferred experience of the service provider, preferred wage to be paid, preferred skills, preferred rating and preferred distance from the service user.

[0021] Once the account has been created, or the service user logs into an existing account, the service user can search for construction workers using any suitable searching technique, such as an interactive search bar that suggests jobs as the service user types, for example. Once the search has been made, in one embodiment the construction workers that meet all of the preferences can be displayed in ascending order of time for the service provider to travel to the job site. The service user can sort or filter based on any other suitable parameters, such as rate, experience level, and so forth. The service user (e.g., a site supervisor, a foreman, or other liaison at the construction company) can then review the profiles of all the matches and select one of the service providers that match the requirements and that is available either on-demand or at the desired time. Upon receiving a selection of a particular service provider, a service request can be processed by the LME.

[0022] Continuing with the non-limiting example scenario, the service provider that is selected by the service user can be notified of his or her selection and can have a certain period of time to respond to the request before it times out or otherwise expires. If the service user is selected for on-demand service, he or she may have a relatively short amount of time to respond to the service request, such as a matter of minutes. If the request is for a scheduled service, there can be more time given to respond, as can be determined by the LME and/or the service user. If the service provider declines the request, or otherwise does not respond within the allotted time, the service user can be sent a notification via any suitable technique (e.g., in-app messaging, text message, instant message, email, etc.) and be directed to matches from their original search, which can in some cases include newly added service providers, in order to select another service provider. If the newly selected service provider accepts the service request, the service appointment can be placed on both the calendar of the service user (i.e., the person from the construction company requesting labor in this example scenario) and the service provider (i.e., the construction worker in this example scenario).
Fifteen minutes prior to the scheduled start time of the service appointment, or any other suitable timeframe (e.g. 60 minutes, 30 minutes, 5 minutes, etc.) the service user can view a map in which the service provider is tracked in real-time (or substantially real-time) as he or she proceeds to the location to perform the labor.

Throughout the searching, matching, and tracking processes, the labor marketplace exchange can facilitate various means of communication between the selected service provider and the service user. These means of communication can include, without limitation, in-app messaging, text messaging, email messaging, instant messaging, telephone calls, video calls, multimedia messaging, among of forms of communication.

Continuing with the non-limiting example scenario, the service provider can check-in or "clock-in" once he or she has arrived at the work site. In some embodiments, a GPS function within the LME can confirm the service provider's location relative to the site of the service before proving the service provider with the option to clock-in. The LME can be configured to not allow the service provider to check-in until the ETA based on the GPS system is a minute or less, or other suitable period of time. The service user can be notified that the provider has checked in and can be required to accept this "clock-in" before a timer begins. Once the timer has started, it can appear on the graphical user interface of both the service provider's computing device and the service user's computing device.

The timer can be stopped by the service user, such as a site supervisor or foreman in the context of construction services, for any number of reasons. For example, the service user may decide the job has been completed or does not wish to pay for any additional labor at this time even if the job is not completed. The service user can also be given the ability to file a complaint, which can be based on, for example, incomplete or unsatisfactory work, poor behavior, and so forth. In some embodiments, the service provider is given a chance to respond to the complaint through interactions with the LME. In some embodiments, if the service provider accepts the complaint, there is no charge and both the service user and the service provider can be directed to the home page, with no ratings, feedback or reviews permitted to be given to either party. In accordance with one embodiment, no ratings are given in this situation since it is assumed that if a complaint is filed, both parties would have reviewed each other.
poorly. Therefore, in this example embodiment, neither party is permitted to input a review or other feedback when a complaint is filed. In some embodiments, as described in more detail below, the provider of the LME (or other entity) can compensate both parties for the transaction; therefore neither party has the ability to diminish the other's ratings. If the service provider does not agree with the complaint, in some embodiments, the provider of the LME (or other entity) can agree to pay the service provider an amount of compensation, such as a percentage or a fixed fee amount, based on the total amount billed based on the amount of service provided (e.g., the hourly rate and time worked based on the timer). In such a scenario, the service user would not necessarily be charged. In an alternate arrangement, a complaint resolution policy can include compensating services providers a percentage of the owed labor costs, with a per transaction cap and an annual cap. Additionally, a service user can be given the ability to cancel a predetermined number of transactions per year, which can also have a capped amount.

[0027] Continuing with the non-limiting example scenario, the service user can supply a rating for the service provider, such as on the service provider's overall quality of labor and work provided. The service user can be permitted, prompted, or required in some cases, to provide specific comments on the review of performance after the work is completed. Likewise, the service provider can rate the service user or otherwise provide feedback regarding his or her experience. The service user can then indicate to the LME to provide payment to the service provider using a payment mechanism. Both parties can receive e-receipts describing the details of the transaction. The payment mechanism can vary, but in some embodiments a payment card of the service user is kept on file with the LME. The payment card is charged with an amount based on services rendered by the service provide, plus any applicable fees. Payment can be provided to the service provider using any suitable vehicle, such a peer-to-peer transfer (such as PAYPAL), a check can be mailed to the service provider, a stored value card held by the service provider can be loaded with funds, among other types of payment techniques.

[0028] While the example scenario described above is based on a relatively unskilled, commercial use of a LME, the system and methods described herein are applicable across a wide range of service environments, including skilled services (e.g., tutoring, computer coding) and unskilled services (e.g., construction work, landscaping) which can be in both commercial (e.g., restaurant, janitorial) and non-commercial (e.g., music lessons, babysitting) settings.
Service providers and service users can access their respective accounts on the LME through any suitable networked device, such as a through a specialized mobile application (sometimes referred to as an “app”) executing on a mobile computing device that is connected to the Internet and has GPS capabilities. In some embodiments, the service user and/or service provider can access the LME and/or their profiles through a website accessed through the internet on any number of different devices. In any event, service users and service providers can have the ability to update and view their profiles and schedules and request service through any suitable device connected to the Internet. However, in some embodiments, certain types of interactions are only offered on devices having GPS capabilities so that the real-time tracking functionality of the LME platform can be utilized. Furthermore, in some embodiments, when the LME is accessed via a networked device, the user will decide whether to enter as a user or provider, as shown in FIG. 3, below. In other embodiments, a service user can utilize a first specialized application to access the LME and a service provider can utilize a second specialized application to access the LME.

Turning now to FIG. 1, a simplified block diagram of a non-limiting example of an LME 100 is depicted. An LME computing system 102 is configured to communicate with one or more remote communications devices 120 over one or more communications networks 130. In operation, the LME computing system 102 can receive profile data, search queries, tracking data, among other types of instructions from the communications devices 120 and/or one or more other computing devices that can be communicatively coupled to the LME computing system 102 via the communications networks 130. The LME computing system 102 can generate user interfaces (e.g., user interfaces illustratively shown in FIGS. 3-17) based on the user (e.g., a service user 142, a service provider 144, and an administrator (not shown) of the LME computing system 102). The user interfaces can be accessible through the communications devices 120 and can generally enable the users 142, 144 of the LME computing system 102 to interact with the LME computing system 102. As schematically depicted in FIG. 1, a real-time, or substantially real-time, geographic position of each user 142, 144 can be provided to the LME computing system 102, such as through GPS data received by the communications devices 120 and provided to the LME computing system 102. As described herein, the geolocation of the communications device 120 of the service provider 144 can be utilized by the LME computing system 102 during various stages of a transaction. For example, the position of the service
provider 144 at the time a search query is provided by the service user 142 can determine whether that service provider 144 is identified in a list of potential service providers and/or determine a ranking of that service provider 144 relative to other service providers in the geographic area. Additionally, the geolocation of the communication device 120 of the service provider 144 can be used to provide the service user 142 with an indication of the service provider's 144 location when the service provider 144 is traveling to a service appointment. The LME computing system 102 may be embodied as any type of server or computing device capable of processing, communicating, storing, maintaining, and transferring data. For example, the LME computing system 102 may be embodied as a server, a microcomputer, a minicomputer, a mainframe, a desktop computer, a laptop computer, a mobile computing device, a handheld computer, a smart phone, a tablet computer, a personal digital assistant, a telephony device, a custom chip, an embedded processing device, or other computing device and/or suitable programmable device. In some embodiments, the LME computing system 102 may be embodied as a computing device integrated with other systems or subsystems. Therefore, the LME computing system 102 can be, for example, a standalone processing platform or the LME computing system 102 can be a part of an enterprise human resources computing platform, or other type of computing system.

[0031] In the illustrative embodiment of FIG. 1, the LME computing system 102 includes a processor 104 and a memory unit 108 for storing a labor marketplace exchange engine 112. Data used by the marketplace exchange engine 112 can be from various data sources 110, such as a user profiles database 132, a service appointments database 134, and a service analytics database 136, among others, as is to be appreciated by one skilled in the art. The data stored in the databases 132, 134, 136 can be stored in a non-volatile computer memory, such as a hard disk drive, a read only memory (e.g., a ROM IC), or other types of non-volatile memory. In some embodiments, one or more databases 132, 134, 136 can be stored on a remote electronic computer system, such as cloud-based storage, for example. As it to be appreciated, a variety of other databases, or other types of memory storage structures, can be utilized or otherwise associated with the LME computing system 102. As such, the data sources 110 may be embodied as any type of device or devices configured for short-term or long-term storage of data such as, for example, memory devices and circuits, memory cards, hard disk drives, solid-state drives, or other data storage devices. For example, in some embodiments, the data sources 110
include storage media such as a storage device that can be configured to have multiple modules, such as magnetic disk drives, floppy drives, tape drives, hard drives, optical drives and media, magneto-optical drives and media, compact disk drives, Compact Disk Read Only Memory (CD-ROM), Compact Disk Recordable (CD-R), Compact Disk Rewritable (CD-RW), a suitable type of Digital Versatile Disk (DVD) or Blu-Ray disk, and so forth. Storage media such as flash drives, solid state hard drives, redundant array of individual disks (RATD), virtual drives, networked drives and other memory means including storage media on the processor 104, or the memory unit 108 are also contemplated as storage devices. It should be appreciated that such memory can be internal or external with respect to operation of the disclosed embodiments. It should also be appreciated that certain portions of the processes described herein can be performed using instructions stored on a computer-readable medium or media that direct or otherwise instruct a computer system to perform the process steps. Non-transitory computer-readable media, as used herein, comprises all computer-readable media except for transitory, propagating signals.

The LME computing system 102 can include several computer servers and databases. For example, the LME computing system 102 can include one or more web servers 114, application servers 116, and/or any other type of servers 118. For convenience, only one web server 114 and one application server 116 are shown in FIG. 1, although it should be recognized that the disclosure is not so limited. The servers can cause content to be sent to the communications devices 120 in any number of formats, such as text-based messages, multimedia message, email messages, smart phone notifications, web pages, and so forth. The servers 114, 116, 118 can comprise processors (e.g., CPUs), memory units (e.g., RAM, ROM), non-volatile storage systems (e.g., hard disk drive systems), etc. The servers 114, 116, 118 can utilize operating systems, such as Solaris, Linux, or Windows Server operating systems, for example.

The web server 114 can provide a graphical web user interface through which various users of the system can interact with the LME computing system 102. The web server 114 can accept requests, such as HTTP requests, from clients (such as web browsers on the communications devices 120), and serve the client's responses, such as HTTP responses, along with optional data content, such as web pages (e.g., HTML documents) and linked objects (such as images, video, and so forth).
[0034] The application server 116 can provide a user interface for users who do not communicate with the LME computing system 102 using a web browser. Such users can have special software installed on their communications device 120 that allows them to communicate with the application server 116 via the communications network 130. Such software can be downloaded, for example, from the LME computing system 102, or other software application provider (such as an App Store), over a network to such communications devices 120.

[0035] Of course, the LME computing system 102 may include other or additional components, such as those commonly found in a server and/or computer (e.g., various input/output devices), in other embodiments. Additionally, in some embodiments, one or more of the illustrative components may be incorporated in, or otherwise from a portion of, another component. For example, the memory unit 108, or portions thereof, may be incorporated in the processor 104 in some embodiments. Furthermore, it should be appreciated that the LME computing system 102 may include other components, sub-components, and devices commonly found in a computer and/or computing device, which are not illustrated in FIG. 1 for clarity of the description.

[0036] The processor 104 may be embodied as any type of processor capable of performing the functions described herein. For example, the processor 104 may be embodied as a single or multi-core processor, a digital signal processor, microcontroller, a general purpose central processing unit (CPU), a reduced instruction set computer (RISC) processor, a processor having a pipeline, a complex instruction set computer (CISC) processor, an application specific integrated circuit (ASIC), a programmable logic device (PLD), a field programmable gate array (FPGA), or other processor or processing/controlling circuit or controller.

[0037] The memory unit 108 may be embodied as any type of volatile or non-volatile memory or data storage capable of performing the functions described herein. For example, the memory unit 108 may be embodied as read only memory (ROM), random access memory (RAM), cache memory associated with the processor 104, or other memories such as dynamic RAM (DRAM), static ram (SRAM), programmable ROM (PROM), electrically erasable PROM (EEPROM), flash memory, a removable memory card or disk, a solid state drive, and so forth. In operation, the memory unit 108 may store various data and software used during operation of
the LME computing system 102 such as operating systems, applications, programs, libraries, and
drivers.

[0038] In some embodiments, the LME computing system 102 and the communications
devices 120 can communicate with each other over the communications network 130. The
communications network 130 can be embodied as any number of various wired and/or wireless
communication networks. For example, the communications network 130 can be embodied as or
otherwise include a local area network (LAN), a wide area network (WAN), a cellular network,
or a publicly-accessible, global network such as the Internet. Additionally, the communications
network 130 can include any number of additional devices to facilitate communication between
the LME computing system 102, the communication devices 120 and/or the other computing
devices.

[0039] Additionally, in some embodiments, the LME computing system 102 can further
include one or more peripheral devices (not shown). Such peripheral devices can include any
type of peripheral device commonly found in a computing device such as additional data storage,
speakers, a hardware keyboard, a keypad, a gesture or graphical input device, a motion input
device, a touchscreen interface, one or more displays, an audio unit, a voice recognition unit, a
vibratory device, a computer mouse, a peripheral communication device, and any other suitable
user interface, input/output device, and/or other peripheral device.

[0040] The communication devices 120 may be embodied as any type of computing
devices capable of performing the functions described herein. As such, the communications
devices 120 may include devices and structures commonly found in computing devices such as
processors, memory devices, communication circuitry, and data storages, which are not shown in
FIG. 1 for clarity of the description. In some embodiments, the communications devices 120 are
configured to send and receive GPS-based data to and from the LME computing system 102, as
discussed. Additionally, the communications devices 120 are configured to enable one or more
users 142, 144 to access the LME computing system 102. To do so, in some embodiments, the
communications devices 120 can be configured to access or otherwise communicate with the
LME computing system 102 via one or more web pages (e.g., HTML pages, PHP pages, etc.) or
a web-browser application (e.g., an HTML application or the like). For example, in such
embodiments, the user 142, 144 can utilize a web-browser executing on the communications devices 120 such as Safari™, Opera™, Google™ Chrome™, Internet Explorer™, or the like to interact with the LME computing system 102. As discussed in more detail below, the LME computing system 102 can be configured to generate user interfaces (e.g., the user interfaces/web pages illustratively shown in FIGS. 3-17) for presenting to the users 142, 144. The communications devices 120 can be any type computer device suitable for communication over the network, such as a wearable computing device, a mobile telephone, a tablet computer, a device that is a combination handheld computer and mobile telephone (sometimes referred to as a "smart phone"), a smart TV, a gaming system, a personal computer (such as a laptop computer, netbook computer, desktop computer, and so forth), or any other suitable mobile communications device, such as personal digital assistants (PDA), mobile gaming devices, or media players, for example.

[0041] While accessing the LME computing system 102, a service user 142 can be directed to set up an account either through, for example, connection with a social media website or through an email address. Once an account is created by the LME computing system 102, the service user 142 can be required to disclose information about themselves or their business, depending on their status as a commercial or non-commercial user, for example. This information can include payment information, such as credit card information or peer-to-peer payment information, for the facilitation of payments. In some embodiments, to further build the profile of the service user 142, the service user 142 can then be asked to answer general preference questions or otherwise provide additional information to provide the LME computing system 102 with additional data to aid in the subsequent matching of service providers 144.

[0042] While accessing the LME computing system 102, a service provider 144 can also be directed to set up an account either through, for example, connection with a social media website or through an email address. Once an account is created by the LME computing system 102, the service provider 144 can be required to disclose information about themselves, such as skill level, skill sets, certifications, experience level, and well as other preferences. At least some of the information associated with the service provider 144 can be updated in substantially real-time by the service provider 144, such that results provided to a service user 142 can include up to date profile and preference information for the service providers 144 that are affiliated with
the LME computing system 102. Compensation information can also be gathered from the service provider 144.

[0043] Referring now to FIG. 2, in the illustrative embodiment, the LME computing system 102 establishes an environment 200 during operation. The illustrative embodiment 200 includes, for example, a quick search module 202, a request new services module 204, a search results module 206, a payment module 208, a service provider tracking module 210, a labor timer module 212, a service user rate and review module 214, an edit profile module 216, an active service requests module 218, an on-demand module 220, a calendar availability module 222, a work near me module 224, an edit profile module 226, a ratings response module 228, a service provider module 230, a provider en route module 232, a provider check-in module 234, and a service provider rate and review module 236. The various modules of the environment 200 may be embodied as hardware, firmware, software, or a combination thereof. For example, each of the modules of the environment 200 may be embodied as a processor and/or a controller configured to provide the functionality described below. Of course, it should be appreciated that the LME computing system 102 may include other components, sub-components, modules, and devices commonly found in a computing device, which are not illustrated in FIG. 2 for clarity of the description.

[0044] The quick search module 202 can be configured to allow a service user 142 to repeat a service request they made in the past with the same preferences (e.g., a quick search), thus creating a repeat search for providers based on recent searches. Another feature of the quick search can allow for the service user 142 to select a previous request and edit the preferences, thus creating a new search with similar but not identical preferences as the previous search. Another feature of the quick search can allow for the selection of specific service providers and subsequently, scheduling service requests in the coming days.

[0045] The request new services module 204 can be configured to generate an interactive search bar that gives suggestions for specific labor types, by category, as the service user types based on popular searches and past user search history. This module can also include a category list with multiple sub-categories that can assist with a service user 142 narrowing their search
down to a specific labor type. Once a service user 142 has selected the desired type of labor, they can answer job-specific questions.

[0046] The search results module 206 can be configured to list a selection of service providers 144 who meet some or all requirements of a search query. The list of service providers can be ordered or ranked based on any number of parameters, such as real-time proximity to the job site. A variety of information regarding each service provider 144 can be displayed, as may be available, such as a name, a profile picture, and other relevant profile information, such as a rating, experience and wage rate, and so forth. The service user 142 can view a profile of a selected service provider 144 and, if they would like to commission the service provider 144, can interact with the LME computing system 102 to request one or more of them to perform a service. If, however, the service user 142 is not satisfied with the matches identified by the LME computing system 102, they can expand the search parameters to instruct the LME computing system 102 to increase the number of matches displayed to the service user 142. In some embodiments, before a service user 142 finalizes a service request, the LME computing system 102 can provide the service user 142 an opportunity to purchase varying degrees of background checks, as may be conduct using a third party service provider. Once a service request is provided to a selected service provider 144 by the LME computing system 102, if the service provider 144 does not respond within an allotted time or rejects the request, the service user 142 can be directed back to the search results module 206 in order to select a different service provider 144 that matches the desired preferences and characteristics of the service user 142.

[0047] The payment module 208 can be configured to facilitate payment for the services rendered by a service provider 144. At the time of payment to the service provider 144, the service user 142 can be asked to elect a method of electronic payment. The service user 142 can, for example, enter new credit card information or select from cards already stored in the third party system database. In some embodiments, a payment vehicle is required to be on file for every transaction before contact with a service provider 144 is facilitated through the LME computing system 102.

[0048] The service provider tracking module 210 can be configured to be available to a service user 142 once certain requirements are satisfied, such as the service provider 144 being
15 minutes away from the job site (based on ETA) or 15 minutes before the start time of a service appointment. The service provider tracking module 21 can be available for both on-demand and scheduled services. In some embodiments, an indicator of the service provider's geographic position can be provided on a map that is viewable on a screen of the communications device 120 of the service user 142. The service provider's geographic position can be based on GPS information received by the LME computing system 102 from a GPS on a mobile computing device of the service provider (e.g., the communications device 120). Additional information, such as ETA, etc., can also be provided to the service user 142 by the service provider tracking module 210. In some embodiments, additional channels of communication can be utilized (e.g., cellular networks, data networks) to allow for communication between service users 142 and service providers 144 during various stages of the transaction, such as to clarify directions or give specific instructions, for example.

[0049] The labor timer module 212 can be configured to be activated by a service provider 144 once he or she arrives at a worksite and begins working, for example, as confirmed through GPS. Once this labor time module 212 is engaged, a screen on the communications device 120 of the service user 142 can display a timer counting the minutes the service provider 144 has worked. The labor time module 212 can be exited through confirmation by the service user 142. In some embodiments, a service user 142 can have the option to end the session because the job was successfully completed, the service user 142 no longer wishes to pay for more labor, or to file a complaint. If the service user 142 files a complaint, the service provider 144 can either accept or dispute the complaint. If accepted, in some embodiments, there is no payment rendered and both parties are directed to a home page or home screen of the LME interface. In some embodiments, if the service provider 144 disputes the complaint, the service provider 144 can be reimbursed for at least some of the services rendered by an entity hosting the LME computing system 102, based on certain limits. For example, there can be limits to the total dollar amount of both the complaint payments a service provider 144 is entitled to and the amount of complaints a service user 142 can initiate before being having its account status impacted (e.g., terminated).

[0050] The service user rate and review module 214 can be configured to generate e-receipts for payments and provide and an opportunity for the service user 142 to rate the service
provider 144 on a scale-based system across a range of aspects. In some embodiments, the service user 142 can be asked to provide an additional comment if a rating falls below a certain threshold.

[0051] The edit profile module 216 can be configured to enable service users 142 to view and edit their profiles, which can include a picture, a brief background, their general preferences for providers, and their payment methods, for example.

[0052] The active service requests 218 can be configured to allow users to review service requests they have pending.

[0053] The on-demand module 220 can be configured to allow the service provider 144 to make himself or herself available to particular service users 142, such as service users 142 within a certain specified radius or satisfying other requirements. There can also be options for the service provider 144 to change his or her preferences before making himself or herself available for on-demand services. This module can require that the service provider 144 respond to service requests within a predetermined time period (such as 30 minutes or 10 minutes) and perform the service within a certain period of time as well.

[0054] The calendar availability module 222 can be configured to enable service providers 144 to set the times, or blocks of time, when they will be available to work in the near future, view their upcoming assignments, and respond to service requests. A calendar view can also enable service providers 144 to view their upcoming assignments in greater depth. For service appointments on their calendar, service providers 144 can view the service user profile, the location of the job with directions, contact the user, and so forth.

[0055] The work near me module 224 can be configured to allow a service provider 144 to view various types of information about recent labor transactions and requests within a certain radius of their location. This module can include, for example, a map feature that allows the service provider 144 to view the labor information geographically. As such, service providers 144 can be educated about the marketplace around them and assist them in matching themselves with nearby users. Example types of maps can include heat maps that are color coded to identify rates, types of jobs, booked service appointments, and so forth. Data for such maps, or other
analytics as may be provided by the LME computing system 102 can be stored in the service analytics database 136.

[0056] The edit profile module 226 can be configured to allow service providers 144 to view and edit their profile which can include, but is not limited to, a picture, jobs the provider is capable and willing to perform, skills, and preferred wage.

[0057] The ratings response module 228 can be configured to enable service providers 144 to write responses to reviews, to thank service users 142 for their business, or to explain a bad review by a particular user.

[0058] The service provider module 230 can be configured to offer certain functionality to the service provider 144, such as the option to create a 1099 form, or other documentation. In some embodiments, the LME computing system 102 can maintain records of work a service provider 144 performed over the year or other period of time.

[0059] The provider en route module 232 can be configured to provide a service provider 144 with information prior to the start of a service appointment. In some embodiments, the information is provided to the service provider 144 about 10 minutes before the service provider 144 should leave to arrive at the job-site on time, based on their mode of transportation, for calendar scheduled jobs. For on-demand jobs, the information generated by the provider en route module 232 can appear immediately once an on-demand job is accepted. This module can also be configured to display to the service provider 144 their location, ETA, and turn-by-turn directions to the job-site. It can also facilitate communication between the service user 142 and the service provider 144 provider over cellular and/or data networks.

[0060] The provider check-in module 234 can be configured to allow a service provider 144 to check-in to a service appointment when the service provider's 144 ETA is less than a threshold time period (e.g., a minute) as determined by the GPS functionality in the LME computing system 102.

[0061] The service provider rate and review module 236 can be configured generate an e-receipt for the services provided and an opportunity for the service provider 144 to rate the
service user 142 on a scale-based system across a range of aspects. The service provider 144 can be asked to provide an additional comment if a rating falls below a certain threshold.

[0062] FTGS. 3-17 depict example simplified user interfaces that can be generated by the LME computing system 102 of FTGS. 1-2 for enabling service users 142 and service providers 144 to interact with the LME computing system 102. While FIGS. 3-17 depict a handheld mobile communications device 120, it is to be appreciated that similar interfaces can be configured to different types of communications devices (such as laptops, tablet computers, and so forth).

[0063] FIG. 3 depicts an example user type selection screen 300. The user type selection screen 300 can include selection buttons 302 for allowing a user of the communications device 120 to identify themselves as either a service user or a service provider.

[0064] FIG. 4 depicts an example service provider home screen 400, which can include a plurality of selectable elements 402 to allow a service provider 144 to interact with the LME computing system 102. Example selectable elements 402 can include, without limitation, a profile button, a service requests button, a service appointments button, a calendar button, and a search button. In the illustrated embodiment, the service requests button has an indicator to alert the service provider 144 to unanswered service requests. As it is to be appreciated, activation of various selectable elements 402 can initiate various modules, as depicted in FIG. 2, to offer certain functionality to the service provider 144. In the illustrated embodiment, the service provider home screen 400 comprises a current availability status indicator 404. The service provider 144 can interact with the current availability status indicator 404 to indicate to the LME computing system 102 that the service provider 144 is available for on-demand service or not-available for on demand service.

[0065] FIG. 5 depicts an example service provider profile screen 500 through which a service provider 144 can selectively provide and subsequently update their profile information stored by the user profiles database 132 (FIG. 1). For illustration purposes, the service provider profile screen 500 is depicted having a contact information section 502, a rates section 504, a skills section 506, a certifications section 508, and a preferences section 510. The contact information section 502 can include, for example, a mobile number, an email address, a SKYPE
number, and so forth. The rates section 504 can include, for example, an hourly wage or
collection of hourly wages, as defined by the service provider 144. The skills section 506 can
include, without limitation, selections of particular skills or abilities possessed by the service
provider 144. These skills can be used by the LME computing system 102 when matching
particular service providers 144 to search queries. The certifications section 508 can include, for
example, licenses (e.g., commercial driver's license (CDL)) or other certifications (e.g., home
inspector certification, OSHA certification). The preferences section 510 can include, for
example, labor preferences that have been provided by the service provider 144 to the LME
computing system 102. These preferences can be updated in real time by the service provider
144 and can be used by the LME computing system 102 when matching particular service
providers 144 to search queries.

[0066] FIG. 6 depicts an example service requests screen 600 through which a service
provider 144 can selectively respond to service requests 602 submitted by various service users
142. The service requests 602 can include relevant information, such as the type of service, the
location of the job site, the amount (for fixed fee work) or the hourly rate, the requesting service
user, and so forth. If the service provider 144 accepts the service request 602 it can be added to
the calendar of both the service provider 144 and the service user 142 requesting the service.

[0067] FIG. 7 depicts an example service appointments screen 700 through which a
service provider 144 can view upcoming service appointments 702. The service appointments
702 can include relevant information, such as the type of service, the location of the job site, the
amount (for fixed fee work) or the hourly rate, the requesting service user, and so forth.

[0068] FIG. 8 depicts an example calendar screen 800 through which a service provider
144 can view upcoming service appointments 702. In some embodiments, the service provider
144 can also indicate available blocks of time for scheduling of future appointments. These
available blocks of time can be used by the LME computing system 102 for selecting which
service provider 144 to identify to a service user 142 in response to a query.

[0069] FIG. 9 depicts an example search screen 900 through which a service provider
144 can search for available service needs. In the illustrated embodiment, a variety of different
search options are provided through the search screen 900, including a keyword search 902, a
service type search 904, and a proximity search 906. In some embodiments, the search screen 900 (or other screen) can include a heat map 908 for visually displaying various forms of data to a service provider 144, as collected and analyzed by the LME computing system 102. While a wide variety of information can be collected and analyzed for display on the heat map 908, example information that can be mapped includes wage information, number of service requests submitted, number of complaints received, type of service requested, and number of service providers working in an area.

[0070] FIG. 10 depicts an example service user home screen 1000, which can include a plurality of selectable elements 1002 to allow a service user 142 to interact with the LME computing system 102. Example selectable elements 1002 can include, without limitation, a profile button, a search button, a service requests button, and a service appointments button. As it should be appreciated, activation of various selectable elements 1002 can initiate various modules, as depicted in FIG. 2, to offer certain functionality to the service user 142.

[0071] FIG. 11 depicts an example service user profile screen 1100 through which a service user 142 can selectively provide and subsequently update their profile information stored by the user profiles database 132 (FIG. 1). For illustration purposes, the service provider profile screen 1100 is depicted having a contact information section 1102. The contact information section 1102 can include, for example, a mobile number, an email address, a SKYPE number, and so forth.

[0072] FIG. 12 depicts an example search screen 1200 through which a service user 142 can search for service providers 144. In the illustrated embodiment, a variety of different search options are provided through the search screen 1200, including a keyword search 1202 and a category search 1204. A search history 1206 can allow the service user 142 to recall previously executed searches and re-run the search or modify one or more of the search parameters prior to re-running the search. Since service providers 144 can update skills and preferences in real-time and may be traveling, the same search executed at two different points in time can yield much different results.

[0073] FIG. 13 depicts an example search results screen 1300 resulting from a search executed by the service user 142. A list of identified service providers 1302 can be graphically
presented on the search results screen 1300. The identified service providers 1302 can be ranked or ordered based on various parameters, such as rating, rate, experience, or ETA. The ETA for the service provider 144 can be determined by the LME computing system 102 based on the location of the service and the last reported location of the communications device 120 of the respective service provider 144. A map 1304 on the search results screen 1300 can include an indication of the service user's location 1306, as well as the location 1308 of the identified service providers 1302. Once the service user 142 has identified an acceptable service provider from the list of identified service providers 1302, the service user 142 can activate the send service request button 1310 to begin the transaction with the selected service provider 144. The selected service provider 144 can then receive a notification that they have a pending service request (as shown in FIG. 4, for example). If they accept the service request (as shown in FIG. 6), the service appointment can be added to calendars of both users.

[0074] FIG. 14 depicts an example service appointment screen 1400 that can become available once certain conditions are satisfied, such as when the start time of the service appointment is within a certain timeframe and/or the ETA of the selected service provider 144 is within a certain timeframe. A map 1402 can be provided that graphically depicts the location 1404 of the selected service provider 144, with the travel path 1406 of the selected service provider updated in real-time, or substantially real-time, based on communications received from communications device 120 of the selected service provider 144 by the LME computing system 102.

[0075] FIG. 15 depicts an example timer screen 1500 that can be used to track a service provider's time on a job site and, for services paid by the hour, can be used to determine the amount owed to the service provider 144. In some embodiments, the service provider 144 can interact with a similar timer screen and request initiation of the time. The service user 142 can confirm the initiation of a timer 1502 by selecting a start clock button 1504. At the conclusion of the service the service, user 142 can activate a service complete button 1506 to stop the timer 1502 and being the payment process.

[0076] FIG. 16 depicts an example service complete screen 1600 for the service user 142. Through interactions with the service complete screen 1600, the service user 142 can initiate
payment to the service provider 144 by selecting the pay service provider button 1602 and/or can report a problem to the LME computing system 102 by selecting the report a problem button 1604.

[0077] FTG. 17 depicts an example service complete screen 1700 for the service provider 144. The service complete screen 1700 can indicate the total time 1702 spent providing the service, provide an e-receipt 1704, and allow the service provider 144 to leave feedback for the service user 142 through activation of the leave feedback for service user button 1706.

[0078] Turning now to FIG. 18, an example message sequence chart 1800 is depicted in accordance with one non-limiting embodiment. The message sequence chart 1800 depicts example messaging between a service provider 1, a service provider 2, a service user, an LME engine, and a profile database. First, the service provider 1 provides service provider 1 data to the LME engine, which, in turn, stores a profile for service provider 1 in the profile database. Next, the service provider 2 provides service provider 2 data to the LME engine, which, in turn, stores a profile for service provider 2 in the profile database. The data received from the service providers 1 and 2 can include, without limitation, skills, certifications, contact information, preferences, communications device information, and so forth. A service user then submits service user data to the LME engine and a profile for the service user is stored in the profile database. Next, the service user submits a service query to the LME engine. Based on the service query, the LME engine queries the profile DB to determine which, if any, service providers can be identified to the service user based on the query. In some cases, the real time locations of the service provider 1 and/or service provider 2 are polled by the LME engine. The matches are returned to the LME engine and a selection of an identified service provider is received from the LME engine by the service user. The LME engine then sends a request to the selected service provider (shown as service provider 2). In the illustrated message sequence chart, the selected service provider indicates the acceptance of the service request to the LME engine. In response, the LME engine generates a service appointment and puts in on the calendars of both the service user and the service provider 2. Geolocation information of the service provider 2 is provided to the LME engine. When the start time of the service appointment is within predetermined window (e.g., a 15 minute window) the LME engine provides real-time location information to the service user. When the service provider 2 arrives
at the service site, a time clock initiation request is submitted to the LME engine. The LME engine then transmits a time clock initiation approval request to the service user. When the service user approves the request, the LME initiates the time clock. The service user then sends a message to the LME engine to terminate the time clock. The LME engine then facilitates the transfer of funds to the service provider 2.

[0079] FIG. 19 is a simplified flow diagram 1900 of at least one embodiment of a method for matching a service provider to a service user that can be executed by the LME computing system 102 of FIGS. 1 and 2. At block 1902, service provider profile data is received from each of a plurality of service providers. The service provider profile data can comprise at least one type of service offering. At block 1904, a service query is received from a service user. The service query comprises a plurality of query parameters, wherein the query parameters can comprise a geolocation parameter and a service type parameter. At block 1906, at least one of the service providers is identified to the service user. The identification can be based on the service provider profile data, the query parameters, and a geolocation position associated with the at least one service provider. At block 1908, a selection of one of the identified service providers is received from the service user. At block 1910, a service request is transmitted to the selected service provider. At block 1912, an acceptance of the service request is received from the selected service provider. At 1914, it is determined whether the current time is within the pre-appointment time window. When the current time is determined to be within the pre-appointment time window, at block 1916, real-time geolocation information of the identified service provider is received and provided to the service user at block 1918.

[0080] In various embodiments disclosed herein, a single component can be replaced by multiple components and multiple components can be replaced by a single component to perform a given function or functions. Except where such substitution would not be operative, such substitution is within the intended scope of the embodiments.

[0081] Some of the figures can include a flow diagram. Although such figures can include a particular logic flow, it can be appreciated that the logic flow merely provides an exemplary implementation of the general functionality. Further, the logic flow does not necessarily have to be executed in the order presented unless otherwise indicated. In addition, the
logic flow can be implemented by a hardware element, a software element executed by a computer, a firmware element embedded in hardware, or any combination thereof.

[0082] The foregoing description of embodiments and examples has been presented for purposes of illustration and description. It is not intended to be exhaustive or limiting to the forms described. Numerous modifications are possible in light of the above teachings. Some of those modifications have been discussed, and others will be understood by those skilled in the art. The embodiments were chosen and described in order to best illustrate principles of various embodiments as are suited to particular uses contemplated. The scope is, of course, not limited to the examples set forth herein, but can be employed in any number of applications and equivalent devices by those of ordinary skill in the art.
WE CLAIM:

1. A method comprising:

- receiving, from each of a plurality of service providers, service provider profile data, wherein the service provider profile data comprises at least one type of service offering;

- receiving, from a service user, a service query, wherein the service query comprises a plurality of query parameters, wherein the query parameters comprise a geolocation parameter and a service type parameter;

- causing at least one of the service providers to be identified to the service user; wherein the identification is based on the service provider profile data, the query parameters, and a geolocation position associated with the at least one service provider;

- responsive to receiving a selection of one of the identified service providers by the service user, causing a service request to be transmitted to the selected service provider; and

- responsive to receiving an acceptance of the service request by the selected service provider, selectively causing substantially real-time geolocation information of the selected service provider to be provided to the service user.

2. The method of claim 1, further comprising:

- receiving, from each of the plurality of service providers, a substantially real-time availability indicator.

3. The method of claim 2, wherein causing the at least one of the service providers to be identified to the service user comprises:

- based on the substantially real-time availability indicators of each of the service providers, causing certain service providers to be identified that are available at the time of the service query.

4. The method of claim 1, further comprising:
generating a service appointment responsive to receiving an acceptance of the service request by the selected service provider, wherein the service appointment identifies a scheduled start time of a service, and wherein the selectively provisioning of the substantially real-time geolocation information of the selected service provider to the service user is based on the scheduled start time of the service.

5. The method of claim 4, wherein the substantially real-time geolocation information of the selected service provider is provided to the service user for a period of time before the scheduled start time of the service.

6. The method of claim 5, wherein the substantially real-time geolocation information of the selected service provider is provided to the service user starting at about fifteen minutes before the scheduled start time of the service.

7. The method of claim 1, wherein the real-time geolocation information of the selected service provider is based on communications received from a mobile communications device of the selected service provider.

8. The method of claim 1, further comprising:

   based on a geographic location of the selected service provider, providing the selected service provider with an electronic time clock;

   responsive to receiving a time clock initiation request from the selected service provider, providing a time clock initiation request approval to the service user; and

   responsive to receiving an approval of the time clock initiation request from the service user, activating the electronic time clock.

9. The method of claim 8, wherein the geographic location associated with the at least one service provider is a substantially real-time geographic location.

10. The method of claim 1, wherein the service provider profile data comprises a service provider name, service offerings parameters, and compensation parameters.
11. The method of claim 10, wherein the service provider profile data comprises an image of the service provider.

12. The method of claim 10, wherein the service offerings parameters identify a skillset.

13. The method of claim 10, wherein the service offerings parameters identify preferences of the service provider.

14. The method of claim 10, further comprising:

   receiving an update to the service provider profile data from one of the plurality of service providers; and

causing the at least one of the service providers to be identified to the service user based on the updated service provider profile data.

15. The method of claim 1, further comprising:

   storing a plurality of service queries received from each of a plurality of service users; and

   providing a graphical mapping of service data based on the stored plurality of service queries.

16. The method of claim 15, wherein the graphical mapping of service data comprises visual indications of the query parameters.

17. The method of claim 16, wherein the graphical mapping selectively provides geolocation-based compensation data.

18. The method of claim 16, wherein the graphical mapping selectively provides geolocation-based service offering data.

19. The method of claim 1, further comprising:
subsequent to completion of a service by the selected service provider, facilitating
the transferring funds from an account of the service user to an account of the selected service
provider.

20. The method of claim 19, further comprising:
receiving from the service user, a feedback report for the identified service
provider.

21. The method of claim 1, further comprising:
subsequent to completion of a service by the selected service provider, providing
the service user with the option of either transferring funds from an account of the service user to
an account of the service provider or providing a feedback report for the selected service
provider.

22. A computing system, comprising:

a labor marketplace exchange computing system, the labor marketplace exchange
computing system configured to:

communicate with communications devices of each of a plurality of
service providers and communications devices of each of a plurality of service users;

receive, from each of the plurality of service providers, service provider
profile data, wherein the service provider profile data comprises at least one type of service
offering;

receive, from one of the plurality of service users, a service query, wherein
the service query comprises a plurality of query parameters, wherein the query parameters
comprise a geolocation parameter and a service type parameter;

cause at least one of the service providers to be identified to the service
user, wherein the identification is based on the service provider profile data, the query
parameters, and a geolocation position associated with the at least one service provider; and
responsive to receiving a selection of one of the identified service providers by the service user, cause a service request to be transmitted to the selected service provider;

responsive to receiving an acceptance of the service request by the selected service provider, selectively cause substantially real-time geolocation information of the selected service provider to be provided to the service user.

23. The computing system of claim 22, wherein the labor marketplace exchange computing system is further configured to:

receive, from each of the plurality of service providers, a substantially real-time availability indicator.

24. The computing system of claim 23, wherein causing the at least one of the service providers to be identified to the service user comprises:

based on the substantially real-time availability indicators, cause service providers to be identified that are available at the time of the service query.

25. The computing system of claim 22, wherein the labor marketplace exchange computing system is further configured to:

generate a service appointment responsive to receiving an acceptance of the service request by the selected service provider, wherein the service appointment identifies a scheduled start time of service, and wherein the selectively provisioning of the substantially real-time geolocation information of the selected service provider to the service user is based on the start time of a service.

26. The computing system of claim 25, wherein the substantially real-time geolocation information of the selected service provider is provided to the service user for a period of time before the scheduled start time of the service.
27. The computing system of claim 26, wherein the substantially real-time geolocation information of the selected service provider is provided to the service user starting at about fifteen minutes before the scheduled start time of the service.

28. The computing system of claim 22, wherein the substantially real-time geolocation information of the selected service provider is based on communications received from a mobile communications device of the selected service provider.

29. The computing system of claim 22, wherein the labor marketplace exchange computing system is further configured to:

   - based on a geographic location of the selected service provider, provide the selected service provider with an electronic time clock;
   - responsive to receiving a time clock initiation request from the selected service provider, provide a time clock initiation request approval to the service user;
   - responsive to receiving an approval of the time clock initiation request from the service user, activate the electronic time clock.

30. The computing system of claim 29, wherein the geographic location associated with the at least one service provider is a substantially real-time geographic location ion.

31. The computing system of claim 22, wherein the service provider profile data comprises a service provider name, service offerings parameters, and compensation parameters.

32. The computing system of claim 31, wherein the service provider profile data comprises an image of the service provider.

33. The computing system of claim 31, wherein the service offerings parameters identify a skillset.

34. The computing system of claim 31, wherein the service offerings parameters identify preferences of the service provider.
35. The computing system of claim 31, wherein the labor marketplace exchange computing system is further configured to:

receive an update to the service provider profile data from one of the plurality of service providers; and

causing the at least one of the service providers to be identified to the service user based on the updated service provider profile data.

36. The computing system of claim 22, wherein the labor marketplace exchange computing system is further configured to:

store a plurality of service queries received from each of a plurality of service users; and

provide a graphical mapping of service data based on the stored plurality of service queries.

37. The computing system of claim 36, wherein the graphical mapping of service data comprises visual indications of the query parameters.

38. The computing system of claim 37, wherein the graphical mapping selectively provides geolocation-based compensation data.

39. The computing system of claim 37, wherein the graphical mapping selectively provides geolocation-based service offering data.

40. The computing system of claim 22, wherein the labor marketplace exchange computing system is further configured to:

subsequent to completion of a service by the selected service provider, facilitate the transferring funds from an account of the service user to an account of the selected service provider.

41. The computing system of claim 40, wherein the labor marketplace exchange computing system is further configured to:
receive from the service user a feedback report for the selected service provider.

42. The computing system of claim 22, wherein the labor marketplace exchange computing system is further configured to:

subsequent to completion of a service by the selected service provider, provide the service user with the option of either transferring funds from an account of the service user to an account of the selected service provider or providing a feedback report for the selected service provider.

43. An online labor marketplace exchange, comprising:

a labor marketplace exchange computing system, wherein the labor marketplace exchange computing system comprises:

- a plurality of service provider profiles stored in a data store, wherein each of the plurality of service provider profiles are associated with a service provider having a defined skillset, wherein each of the plurality of service provider profiles comprises a substantially real-time availability indicator and a substantially real-time geographic location associated with the service provider;

- a graphical user interface for receiving search parameters from a service user for a service request, wherein the search parameters identify at least one requested skill and a geolocation parameter; and

wherein the labor marketplace exchange computing system is configured to:

receive, through an input to the graphical user interface search parameters from a service user for a service request; and

provide to the service user, through the graphical user interface, at least one service provider profile, wherein the at least one service provider profile provided is based on the search parameters, the defined skillset, the substantially real-time geographic location associated with the service provider, and the substantially real-time availability indicator.
44. A labor marketplace exchange computing system according to one or more of the inventive principles as shown and described herein.

45. A labor marketplace exchange computing system substantially as shown and described herein.

46. A method of matching a service provider to a service user according to one or more of the inventive principles as shown and described herein.

47. A method of matching a service provider to a service user, the method being substantially as described herein.

48. A computer-implemented method of matching a service provider to a service user, according to one or more of the inventive principles described herein.

49. A computer-implemented method of matching a service provider to a service user substantially as shown and described herein.

50. A non-transitory computer readable medium having instructions stored thereon that when executed by one or more processors causes the processors to perform the operations substantially as described herein.
FIG. 2
FIG. 7

SERVICE PROVIDER

SERVICE APPOINTMENTS

APPOINTMENT 1
702 CONTACT SERVICE USER
CANCEL

APPOINTMENT 2
702 CONTACT SERVICE USER
CANCEL

APPOINTMENT 3
702 CONTACT SERVICE USER
CANCEL

HOME   LOG OUT
# Service User

## Search Results

<table>
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<tr>
<th>Name</th>
<th>Rating</th>
<th>Rate</th>
<th>Experience</th>
<th>ETA</th>
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<tbody>
<tr>
<td>PROVIDER 1</td>
<td>★★★★★</td>
<td>$15/HR</td>
<td>2 YRS</td>
<td>5 MIN</td>
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<tr>
<td>PROVIDER 2</td>
<td>★★★★</td>
<td>$12/HR</td>
<td>4 YRS</td>
<td>60 MIN</td>
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<tr>
<td>PROVIDER 3</td>
<td>★★★☆</td>
<td>$14/HR</td>
<td>3 YRS</td>
<td>85 MIN</td>
</tr>
<tr>
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<td>★★</td>
<td>$9/HR</td>
<td>1 YRS</td>
<td>3 DAYS</td>
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- **SEND SERVICE REQUEST**
- **VIEW PROFILE**
FIG. 15

SERVICE USER

Service Appointment 1
2:00 PM

Service Provider arrived at 1:58

0:00

START CLOCK

SERVICE COMPLETE

HOME

LOG OUT
SERVICE USER

Service Appointment 1
2:00 PM

SERVICE COMPLETE

1602 PAY SERVICE PROVIDER

1604 REPORT A PROBLEM

FIG. 16
1900

1902
RECEIVE SERVICE PROVIDER PROFILE DATA

1904
RECEIVE A SERVICE QUERY FROM A SERVICE USER

1906
IDENTIFY AT LEAST ONE OF THE SERVICE PROVIDERS TO THE SERVICE USER

1908
RECEIVE SELECTION OF A SERVICE PROVIDER

1910
TRANSMIT A SERVICE REQUEST TO A SELECTED SERVICE PROVIDER

1912
RECEIVE ACCEPTANCE OF SERVICE REQUEST FROM SELECTED SERVICE PROVIDER

1914
WITHIN PRE-APPOINTMENT TIME WINDOW?

1916
RECEIVE REAL-TIME GEOLOCATION INFORMATION FOR THE SERVICE PROVIDER

1918
PROVIDE SUBSTANTIALLY REAL-TIME GEOLOCATION INFORMATION OF THE IDENTIFIED SERVICE PROVIDER TO THE SERVICE USER

FIG. 19
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06Q 10/02 (2016.01)
CPC - G06Q 10/0631 1 (2016.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) - G06Q 10/02, 10/06, 50/30 (2016.01)
CPC - G06Q 10/02, 10/0631 1, 10/06314, 10/109 (2016.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC 705/7.13, 7.16, 7.18 (keyword delimited)

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
PatBase, Google Patents, Google Scholar, Google
Search terms used: location, search, provider, parameter

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<td>8, 9, 11, 12, 15-21, 29, 30, 32, 33, 36-42</td>
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<td>A</td>
<td>US 2014/0129951 A1 (UBER TECHNOLOGIES, INC.) 08 May 2014 (08.05.2014) entire</td>
<td>1-42</td>
</tr>
<tr>
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<td>document</td>
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</table>

Further documents are listed in the continuation of Box C.
See patent family annex.

* Special categories of cited documents:
  "A" document defining the general state of the art which is not considered to be of particular relevance
  "E" earlier application or patent but published on or after the international filing date
  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
  "O" document referring to an oral disclosure, use, exhibition or other means
  "P" document published prior to the international filing date but later than the priority date claimed
  "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
  "Z" document member of the same patent family

Date of the actual completion of the international search
06 April 2016

Date of mailing of the international search report
25 April 2006

Name and mailing address of the ISA/
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents
P.O. Box 1450, Alexandria, VA 22313-1450
Facsimile No. 571-273-8300

Authorized officer
Blaine R. Copenhaver
PCT Helpdesk: 571-272-4300
PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (January 2015)
INTERNATIONAL SEARCH REPORT

International application No. PCT/US2015/068094

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [□] Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. [□] Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. [☑] Claims Nos.: 44-50 because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See supplemental page

1. [□] As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. [□] As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.

3. [□] As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. [☑] No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-42

Remark on Protest

☑ The additional search fees were accompanied by the applicant’s protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant’s protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.
Continued from Box No. III Observations where unity of invention is lacking

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-42, drawn to causing at least one of the service providers to be identified to the service user.
Group II, claims 43, drawn to an online labor marketplace exchange.

The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I invention: cause at least one of the service providers to be identified to the service user, wherein the identification is based on the service provider profile data, the query parameters, and a geolocation position associated with the at least one service provider; and responsive to receiving a selection of one of the identified service providers by the service user, cause a service request to be transmitted to the selected service provider as claimed therein is not present in the invention of Group II. The special technical feature of the Group II invention: wherein the search parameters identify at least one requested skill, wherein the at least one service provider profile provided is based on the search parameters, the defined skillset, the substantially real-time geographic location associated with the service provider, and the substantially real-time availability indicator as claimed therein is not present in the invention of Group I.

Groups I and II lack unity of invention because even though the inventions of these groups require the technical feature of a labor marketplace exchange computing system, wherein the labor marketplace exchange computing system comprises: a plurality of service provider profiles; search parameters from a service user for a service request; geolocation information, this technical feature is not a special technical feature as it does not make a contribution over the prior art.

Specifically, US 2010/0223157 A1 (KLAS) 02 September 2010 (02.09.2010) teaches a labor marketplace exchange computing system (on-demand Knowledge Marketplace System, Paras. 49-50), wherein the labor marketplace exchange computing system comprises: a plurality of service provider profiles (the virtual knowledge marketplace provides professional Knowledge Consumers and producers/providers with a single platform for listing, searching, cataloging, training, marketing, scheduling, networking, knowledge, training, and offering services to the clients globally in real-time, Para. 90); search parameters from a service user for a service request (The Knowledge Marketplace System is further operative to store the tagged knowledge content or information packets in system accessible databases, enable searches and queries by Knowledge Consumers for the information packets, Para. 107); geolocation information (Knowledge Consumers or seekers must be able to access an information system in real-time to improve their skills irrespective of geographical location, Para. 15).

Since none of the special technical features of the Group I or II inventions are found in more than one of the inventions, unity of invention is lacking.