#### **EXHIBIT D**

oc. 654 Att. 4

## UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

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LEADER TECHNOLOGIES, INC.,	)
Plaintiff,	)
V.	) Case No. 08-cv-862 JJF (LPS)
FACEBOOK, INC.	)
Defendant.	)
	, )

EXPERT REPORT OF MICHAEL KEARNS, PH.D

HIGHLY CONFIDENTIAL – ATTORNEYS' EYES ONLY – SOURCE CODE (SUBJECT TO PROTECTIVE ORDER)

#### IV. Background of the '761 Patent

- Stored Information with Iterative Workflow Changes," relates generally to the storage and management of information. The '761 patent disclosure contains 18 figures and nearly 20 columns of textual description, but as shown below, only a few paragraphs of the textual description of the patent and only a couple of its figures directly address the specific systems and methods set forth in the claims of the '761 patent that have been asserted in this case. In providing the following general tutorial of the patent disclosure (which I also intend to present at trial), therefore, I will focus on those aspects of the '761 patent that are most pertinent to the specific systems and methods described in the asserted claims.
- 12. The '761 patent purports to describe systems and methods for facilitating the management of data. In the Background of the Invention, the patent criticizes certain prior art methods of organizing data and electronic communications because they are perceived to be "limited and fragmented" and "wholly inadequate" because "[a]utomation of organization of communications is non-existent." Col. 1:47-58. The patent asserts that, in the context of electronic communications, "[t]he recipient must do all the work of organization and categorization of the communications rather than the system itself do [sic] that work." Col. 1:54-56. The Background concludes by stating that "a need still exists for a communications tool that associates files generated by applications with individuals, groups, and topical context automatically." Col. 3:2-4.
- 13. The patent attempts to address these perceived deficiencies by describing a system that includes three specific features, which are incorporated into each asserted claim of the '761 patent: (1) data or information created by a user is created within a particular "context," "user environment," or "workspace," and (2) that data is linked and associated to that user (in "metadata") such that (3) when the user moves to a second context, user environment or workspace, the metadata associated with the data is

automatically updated and the data automatically follows that user to the new context, environment or workspace. The system therefore purports to allow users to automatically access and manage their data across more than one context, user environment or user workspace, without manual action by the user.

14. As explained in the Summary of the Invention: "The data management tool includes a novel architecture where the highest contextual assumption is that there exists an entity that consists of one or more users. The data storage model first assumes that files are associated with the user. Thus, data generated by applications is associated with an individual, group of individuals, and topical content, and not simply with a folder, as in traditional systems." Col. 3:25-31. The next paragraph of the Summary of the Invention sets forth an example system in which this concept of association or linking is further described:

When a user logs in to the system that employs the tool, the user enters into a personal workspace environment. This workspace is called a board, and is associated with a user context. From within this board, the tool makes accessible to the user a suite of applications for creating and manipulating data. Any user operating within any board has access to the suite of applications associated with that board, and can obtain access to any data in any form (e.g., documents and files) created by the applications and to which he or she has permission. Moreover, thereafter, the user can then move to shared workspaces (or boards), and access the same data or other data.

Data created within the board is immediately associated with the user, the user's permission level, the current workspace, any other desired workspace that the user designates, and the application. This association is captured in a form of metadata and tagged to the data being created. The metadata automatically captures the context in which the data was created as the data is being created. Additionally, the data content is indexed to facilitate searching for the content in a number of different ways in the future by the user or other users. This tagging process is universal, in that, the data model allows for any binary data (e.g., files), as well as any set of definable data

to be accepted into the system. The system is not restricted to processing e-mail, faxes, calendar events, meetings, phone calls, etc., that are included in the bundled system, but can also accommodate whatever data the user chooses to use. The system is also universal insofar as its user interaction can be through a browser that is pervasively employed for use with conventional operating systems.

In that the tool supports multiple users, there can be multiple boards. Two or more boards (or workspace environments) can be grouped as a collection of boards, also called a web. Boards can exist in any number of different webs. The association of webs and boards is stored in a table. As a user creates a context, or moves from one context to at least one other context, the data created and applications used previously by the user automatically follows the user to the next context. The change in user context is captured dynamically. All files and groups of files can be associated with any other file in the system, allowing a system user the flexibility in determining dynamic associations. Col. 3:32-4:7.

15. This basic system is embodied in every asserted claim of the '761 patent, as explained below. The system is further described in two figures of the '761 patent (Figs. 1 and 2) and two columns (columns 6 and 7) under the section entitled "Detailed Description of the Invention." Figure 1 (which is also reproduced on the face of the patent) shows the basic system components:

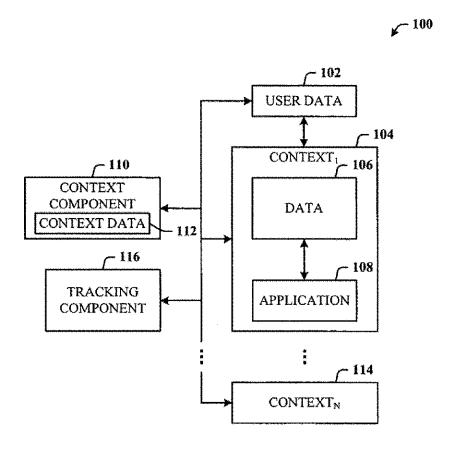


FIG. 1

16. As shown in Figure 1 above, the data management system (100) includes a context component (110), a tracking component (116), a first context (104) and at least one other context (114). Within the first context (104) exists data that is created by a user (106), as well as an application for use by the user (108). The textual description corresponding to Figure 1, which echoes much of what was in the Summary of the Invention discussed above, further explains:

Referring now to FIG. 1, there is illustrated a block diagram of a system 100 that facilitates the management of data in accordance with the present invention. The data management tool includes a novel architecture where the highest contextual assumption is that there exists an entity

that consists of one or more users. The data management and storage model first assumes that data is associated with the user. Thus, data generated by an application employed by the user is associated with the user, groups of users, and topical content; and not simply with a folder, as in traditional systems.

In support thereof, when a user logs-in to the system 100, user data 102 is generated and associated with at least the user and the login process. The user automatically enters into a user workspace or a first context 104 (also denoted CONTEXT1) or environment. This environment can be a default user workspace, or workspace environment predesignated by the user or an administrator after login, for example. After login, the user can perform data operations (e.g., create and manipulate) on a data 106 in any number of ways, including, but not limited to, viewing, editing, copying, moving, and deleting the data. Such data operations can be performed using at least one application 108. For example, where the data 106 is text data, a text editing or word processing application can be employed. Many different text editor and/or word processing applications exist that can be used to create, view, edit, copy, and move the data 106, to name just a few of the operations. Where the data 106 is program code, the application 108 is one that is suitable for providing user access and interaction therewith. Where the data 106 is a voice file, the application 108 can be an application suitable for playing the voice file. This all occurs in association with the first context 104.

The system 100 also includes a context component 110 in association with the first context 104 to monitor and generate context data 112 associated with data operations of the user in the first context 104. The context data 112 includes at least data representative of the user (e.g., some or all of the user data 102), data representative of the first context 104, data representative of the data 106, and data representative of the application 108. The context data 112 can be stored in the form of a table (or any other suitable data structure) for access and processing, and at any location, as desired.

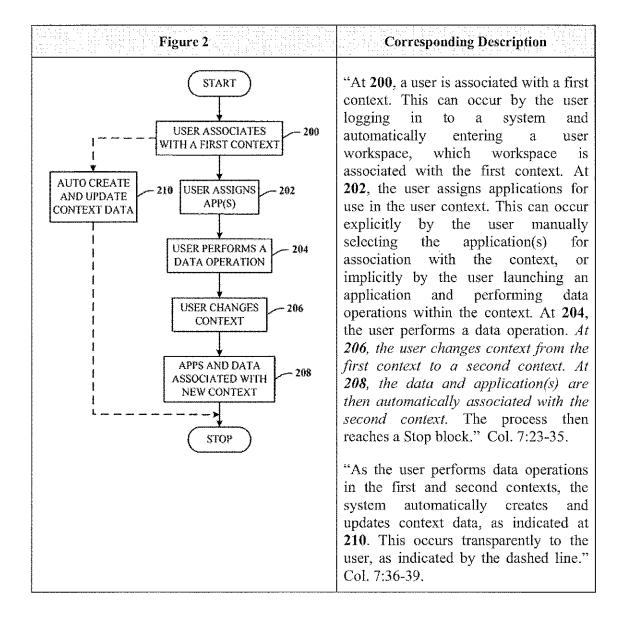
The system 100 can include a plurality of the contexts, denoted as CONTEXT1, . . . , CONTEXTN. Thus, in addition to the first context 104, there is at least a second

context 114 with which the context component 110 is associated. This is because the user of the first context 104 can move to the second context 114, and perform many different data operations therein which will then be associated with that user in that second context 114. The data operations performed in the second context 114 are also associated with the user and stored automatically. Such user activities and data operations in the one or more contexts of the system 100 and movement of the user between contexts are tracked using a tracking component 116. Thus, data generated by applications is associated with an individual, group of individuals, and topical content; and not simply with a folder, as in traditional systems. Col. 6:15-7:7.

17. The '761 patent goes on to describe Figure 2, which illustrates the basic process that appears throughout each asserted claim of the '761 patent. I have placed Figure 2 with the corresponding text, side-by-side, below:

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18. The examples in the Summary and Detailed Description shown above describe a three step process in which (1) a user creates data within a first context or workspace; (2) the user changes or moves from the first to a second context or workspace; and (3) the data that was created in the first context or workspace is, automatically and in response to the user's movement, associated with the second context or workspace. This last step is succinctly summarized in the Summary: "As a user

creates a context, or moves from one context to at least one other context, the data created and applications used previously by the user automatically follows the user to the next context. The change in user context is captured dynamically." Col. 4:1-4. Claims 1, 9, 21 and 23 of the '761 patent, which I understand to be the independent claims of the patent asserted by the plaintiff in this litigation, all incorporate this basic three-step process. Those claims read as follows:

1. A computer-implemented network-based system that facilitates management of data, comprising:

a computer-implemented context component of the network-based system for capturing context information associated with user-defined data created by user interaction of a user in a first context of the network-based system, the context component dynamically storing the context information in metadata associated with the user-defined data, the user-defined data and metadata stored on a storage component of the network-based system; and

a computer-implemented tracking component of the network-based system for tracking a change of the user from the first context to a second context of the network-based system and dynamically updating the stored metadata based on the change,

wherein the user accesses the data from the second context.

9. A computer-implemented method of managing data, comprising computer-executable acts of:

creating data within a user environment of a web-based computing platform via user interaction with the user environment by a user using an application, the data in the form of at least files and documents:

dynamically associating metadata with the data, the data and metadata stored on a storage component of the web-based computing platform, the metadata includes information related to the user, the data, the application, and the user environment;

tracking movement of the user from the user environment of the web-based computing platform to a second user environment of the web-based computing platform; and

dynamically updating the stored metadata with an association of the data, the application, and the second user environment wherein the user employs at least one of the application and the data from the second environment.

21. A computer-readable medium for storing computer-executable instructions for a method of managing data, the method comprising:

creating data related to user interaction of a user within a user workspace of a web-based computing platform using an application;

dynamically associating metadata with the data, the data and metadata stored on the web-based computing platform, the metadata includes information related to the user of the user workspace, to the data, to the application and to the user workspace;

tracking movement of the user from the user workspace to a second user workspace of the web-based computing platform;

dynamically associating the data and the application with the second user workspace in the metadata such that the user employs the application and data from the second user workspace; and

indexing the data created in the user workspace such that a plurality of different users can access the data via the metadata from a corresponding plurality of different user workspaces.

23. A computer-implemented system that facilitates management of data, comprising:

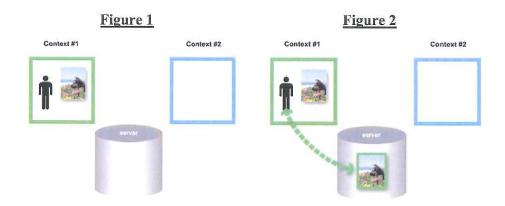
a computer-implemented context component of a web-based server for defining a first user workspace of the web-based server, assigning one or more applications to the first user workspace, capturing context data associated with user interaction of a user while in the first user workspace, and for dynamically storing the context data as metadata on a storage component of the web-based server, which metadata is dynamically associated with data created in the first user workspace; and

a computer-implemented tracking component of the web-based server for tracking change information associated with a change in

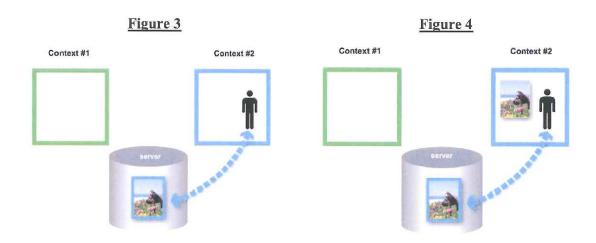
access of the user from the first user workspace to a second user workspace, and dynamically storing the change information on the storage component as part of the metadata,

wherein the user accesses the data from the second user workspace.

- 19. I understand that Facebook's claim construction briefing in this litigation analogized the systems and methods claimed in the '761 patent with a user who carries a "backpack" containing his or her data. I agree that this is an appropriate analogy to explain some basic concepts of the '761 patent using a physical world analogy, as it captures the notion of a user's data being linked or associated with that user, and that the user's data automatically follows the user as he or she moves from one location to another. In the electronic world, one can further refine this analogy by envisioning a user who creates a photo file in a first context and then moves to a second context. An illustration is provided in Figures 1 through 4 below, which provide a graphical and sequenced representation of the basic steps in each asserted claim.
- 20. As shown in Figure 1 below, a user creates a graphical photograph file in a first context that is shown as a green box. (The context boxes are not necessarily intended to represent physical spaces, but rather, separate computing environments in which data can be created). The data is then stored on a server, as shown in Figure 2, and the green frame surrounding the photo signifies that the server has stored metadata associated with the user-defined data that identifies the context (green) in which the data was created. The green arrow connecting the user and the data represents the linkage between the user and his or her data that is captured by the metadata.



21. The user can then move from the first context to a second context, i.e., from the green box to the blue box, as shown in Figure 3 below. The system tracks this movement and automatically updates the stored metadata solely in response to the movement, as shown by the blue frame that then surrounds the picture on the server as shown in Figure 3. The blue dashed line shows that the linkage between the user and his or her data has now changed to reflect the movement to the second context. Finally, in Figure 4, the user accesses the data from the second context:



143. In light of Dr. Vigna's failure to tie the claimed many-to-many functionality to the information in claim 23 that he identifies as the alleged "metadata," he cannot show that the doctrine of equivalents applies here without ignoring express requirements of the claim. Removing the connection between the metadata and the claimed functionality results in a fundamental difference in the way claim 23 operates as compared to Facebook, and the results achieved. Nor does the addition of the claim element of claim 32 impact the prior art or hypothetical claim analysis, discussed in connection with claim 1, because the prior art systems clearly disclosed the claimed many-to-many functionality to the extent it could be construed to cover Facebook.

Michael Kearns, Ph.D

April 22, 2010

#### CERTIFICATE OF SERVICE

#### STATE OF CALIFORNIA, COUNTY OF SANTA CLARA

I am employed in the County of Santa Clara, State of California. I am over the age of 18 and not a party to the within action. My business address is 3000 El Camino Real, Five Palo Alto Square, Palo Alto, CA 94306.

On April 22, 2010, I served the following document:

#### EXPERT REPORT OF MICHAEL KEARNS, PH.D

on the interested parties in this action follows:

BY E-MAIL	BY E-MAIL:
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[XX] BY ELECTRONIC MAIL: I am personally and readily familiar with the business practice of Cooley Godward Kronish LLP for the preparation and processing of documents in portable document format (PDF) for e-mailing, and I caused said documents to be prepared in PDF and then served by electronic mail to the parties listed above.

I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed on April 22, 2010 at San Francisco, California.

Melissa Keyes