

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of: Roy Shkedi Attorney Docket No.: 58717-0005IP1
U.S. Patent No.: 8,494,904
Issue Date: July 23, 2013
Application No.: 13/585,779
Filing Date: August 14, 2012
Title: METHOD AND STORED PROGRAM FOR ACCUMU-
LATING DESCRIPTIVE PROFILE DATA ALONG WITH
SOURCE INFORMATION FOR USE IN TARGETING
THIRD-PARTY ADVERTISEMENTS

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PETITION FOR *INTER PARTES* REVIEW OF UNITED STATES
PATENT NO. 8,494,904 PURSUANT TO 35 U.S.C. §§ 311-319,
37 C.F.R. § 42

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LIST OF EXHIBITS

LIVEINTENT1001	U.S. Patent No. 8,494,904 to Shkedi ('904 Patent)
LIVEINTENT1002	Excerpts from the Prosecution History of the '904 Patent
LIVEINTENT1003	Declaration and Curriculum Vitae of Dr. Michael D. Mitzenmacher
LIVEINTENT1004	U.S. Patent No. 5,918,014A (Robinson)
LIVEINTENT1005	U.S. Patent No. 6,415,322B1 (Jaye)
LIVEINTENT1006	U.S. Patent Publication No. 2002/0026351A1 (Coleman)
LIVEINTENT1007	U.S. Patent No. 6,285,987
LIVEINTENT1008	U.S. Patent & Trademark Office, Memorandum on Interim Processes for PTAB Workload Management (Mar. 26, 2025)

LISTING OF CLAIMS

Claim 1	
[1.pre]	An automated method of collecting profiles of Internet-using entities, the method comprising:
[1.a.i]	electronically receiving at a programmed computer system coupled to a global computer network, from at least one server controlled by one of a plurality of unaffiliated third parties, an electronically URL-redi-rected partial profile of an entity that uses a user computer coupled to the global computer network to access a website,
[1.a.ii]	which partial profile is available to one of the third parties and con- tains at least one profile attribute related to the entity,
[1.a.iii]	which partial profile is received along with an identification of the one of the third parties that contributed the partial profile, and
[1.a.iv]	automatically with the computer system storing the received partial profile;
[1.b]	automatically with the computer system electronically adding the re- ceived partial profile to a maintained profile believed to be related to the same entity;
[1.c]	automatically with the computer system generating and storing an electronic record of which of the plurality of unaffiliated third parties contributed to the maintained profile particular profile attributes; and
[1.d]	wherein the maintained profile, including the added partial profile, comprises data used in targeting third-party advertisements to the user computer over the global computer network.
Claim 3	
[3]	The method of claim 1 wherein the computer system electronically adding the received partial profile to a maintained profile believed to be related to the same entity comprises the computer system adding the received partial profile to a maintained profile believed related to

	the same entity on account of the received partial profile and the maintained profile being related to the same user computer.
Claim 4	
[4]	The method of claim 3 wherein the computer system determines that the received partial profile and the maintained profile are related to the same user computer by automatically reading a cookie on the user computer.
Claim 5	
[5]	The method of claim 1 further comprising automatically with the computer system electronically maintaining an electronic record of which unaffiliated third party contributed, to the maintained profile, the profile attributes used in targeting the advertisements.
Claim 6	
[6]	The method of claim 1 further comprising automatically with the computer system electronically determining whether the received partial profile contains any profile attributes about the entity that were not previously contained in a maintained profile.
Claim 7	
[7]	The method of claim 1 further maintaining with the computer system a credibility rating associated with at least one of the profile attributes of the maintained profile.
Claim 8	
[8]	The method of claim 7 wherein the credibility rating is reflected in a price for the at least one profile attribute.
Claim 9	
[9]	The method of claim 1 further comprising automatically with the computer system selecting profile attributes from the maintained profile based on the source thereof.

Claim 10	
[10]	The method of claim 1 further comprising automatically with the computer system electronically reading a cookie previously stored on the entity's computer, as a result of the URL redirection.
Claim 11	
[11.pre]	A computer system programmed and connected to perform a method of collecting profiles of Internet-using entities, the method comprising:
[11.a.i]	electronically receiving at a computer system coupled to a global computer network, from at least one server controlled by one of a plurality of unaffiliated third parties, an electronically URL-redirected partial profile of an entity that uses a user computer coupled to the global computer network to access a website,
[11.a.ii]	which partial profile is available to one of the third parties and contains at least one profile attribute related to the entity,
[11.a.iii]	which partial profile is received along with an identification of the one of the third parties that contributed the partial profile, and
[11.a.iv]	automatically with the computer system storing the received partial profile;
[11.b]	automatically with the computer system electronically adding the received partial profile to a maintained profile believed to be related to the same entity;
[11.c]	automatically with the computer system generating and storing an electronic record of which of the plurality of unaffiliated third parties contributed to the maintained profile particular profile attributes; and
[11.d]	wherein the maintained profile, including the added partial profile, comprises data used in targeting third-party advertisements to the user computer over the global computer network.
Claim 13	
[13]	The computer system of claim 11 wherein the computer system electronically adding the received partial profile to a maintained profile

	believed to be related to the same entity comprises the computer system adding the received partial profile to a maintained profile believed related to the same entity on account of the received partial profile and the maintained profile being related to the same user computer.
Claim 14	
[14]	The computer system of claim 13 wherein the computer system determines that the received partial profile and the maintained profile are related to the same user computer by automatically reading a cookie on the user computer.
Claim 15	
[15]	The computer system of claim 11 wherein the method performed by the computer system further comprises automatically with the computer system electronically maintaining an electronic record of which unaffiliated third party contributed, to the maintained profile, the profile attributes used in targeting the advertisements.
Claim 16	
[16]	The computer system of claim 11 wherein the method performed by the computer system further comprises automatically with the computer system electronically determining whether the received partial profile contains any profile attributes about the entity that were not previously contained in a maintained profile.
Claim 17	
[17]	The computer system of claim 11 wherein the method performed by the computer system further comprises maintaining with the computer system a credibility rating associated with at least one of the profile attributes of the maintained profile.
Claim 18	
[18]	The computer system of claim 17 wherein the credibility rating is reflected in a price for the at least one profile attribute.
Claim 19	

[19]	The computer system of claim 11 wherein the method performed by the computer system further comprises automatically with the computer system selecting profile attributes from the maintained profile based on the source thereof.
Claim 20	
[20]	The computer system of claim 11 wherein the method performed by the computer system further comprises automatically with the computer system electronically reading a cookie previously stored on the entity's computer, as a result of the URL redirection.
Claim 21	
[21.pre]	A tangible, non-transitory data storage medium comprising indicia of instructions for a processor to perform a method of collecting profiles of Internet-using entities, the method comprising:
[21.a.i]	electronically receiving at a programmed computer system coupled to a global computer network, from at least one server controlled by one of a plurality of unaffiliated third parties, an electronically URL-redi-rected partial profile of an entity that uses a user computer coupled to the global computer network to access a website,
[21.a.ii]	which partial profile is available to one of the third parties and con- tains at least one profile attribute related to the entity,
[21.a.iii]	which partial profile is received along with an identification of the one of the third parties that contributed the partial profile, and
[21.a.iv]	automatically with the computer system storing the received partial profile;
[21.b]	automatically with the computer system electronically adding the re- ceived partial profile to a maintained profile believed to be related to the same entity;
[21.c]	automatically with the computer system generating and storing an electronic record of which of the plurality of unaffiliated third parties contributed to the maintained profile particular profile attributes; and

[21.d]	wherein the maintained profile, including the added partial profile, comprises data used in targeting third-party advertisements to the user computer over the global computer network.
Claim 23	
[23]	The data storage medium of claim 21 wherein the computer system electronically adding the received partial profile to a maintained profile believed to be related to the same entity comprises the computer system adding the received partial profile to a maintained profile believed related to the same entity on account of the received partial profile and the maintained profile being related to the same user computer.
Claim 24	
[24]	The data storage medium of claim 23 wherein the computer system determines that the received partial profile and the maintained profile are related to the same user computer by automatically reading a cookie on the user computer.
Claim 25	
[25]	The data storage medium of claim 21 wherein the indicia of instructions instruct the processor to perform a method that further comprises: automatically with the computer system electronically maintaining an electronic record of which unaffiliated third party contributed, to the maintained profile, the profile attributes used in targeting the advertisements.
Claim 26	
[26]	The data storage medium of claim 21 wherein the indicia of instructions instruct the processor to perform a method that further comprises: automatically with the computer system electronically determining whether the received partial profile contains any profile attributes about the entity that were not previously contained in a maintained profile.
Claim 27	

[27]	The data storage medium of claim 21 wherein the indicia of instructions instruct the processor to perform a method that further comprises: maintaining with the computer system a credibility rating associated with at least one of the profile attributes of the maintained profile.
Claim 28	
[28]	The data storage medium of claim 27 wherein the credibility rating is reflected in a price for the at least one profile attribute.
Claim 29	
[29]	The data storage medium of claim 21 wherein the indicia of instructions instruct the processor to perform a method that further comprises: automatically with the computer system selecting profile attributes from the maintained profile based on the source thereof.
Claim 30	
[30]	The data storage medium of claim 21 wherein the indicia of instructions instruct the processor to perform a method that further comprises: automatically with the computer system electronically reading a cookie previously stored on the entity's computer, as a result of the URL redirection.

I. INTRODUCTION

LiveIntent, Inc. (LiveIntent or Petitioner) petitions for *Inter Partes* Review (IPR) of claims 1, 3-11, 13-21, and 23-30 (Challenged Claims) of U.S. Patent No. 8,494,904 ('904 Patent).¹

II. REQUIREMENTS FOR IPR

A. Grounds for Standing

Petitioner certifies the '904 Patent is available for IPR. This petition is being filed within one year of service of a complaint against LiveIntent. LiveIntent is not barred or estopped from requesting review of the Challenged Claims on the below-identified grounds.

B. Challenge and Relief Requested

LiveIntent requests an IPR of the Challenged Claims on the grounds in the table below. Dr. Michael D. Mitzenmacher provides supporting testimony in his Declaration. *See generally* LIVEINTENT1003.

Ground	Claims	Pre-AIA 35 U.S.C. §103
1A	1, 3-7, 9-11, 13-17, 19-21, 23-27, 29-30	Robinson in view of Jaye (Robinson-Jaye)
1B	7-9, 17-19, 27-29	Robinson in view of Jaye and Coleman (Robinson-Jaye-Coleman)

The application that issued as the '904 Patent claims a priority date of

¹ Patent Owner disclaimed claims 2, 12, and 22. EX1002, 1, 19.

12/13/1999 (Critical Date). LIVEINTENT1001 code (30). Robinson, Jaye, and Coleman were filed before the Critical Date and therefore qualify as prior art under §102(e):

Reference	Filing Date
Robinson	12/26/1996
Jaye	2/26/1999
Coleman	6/30/1999

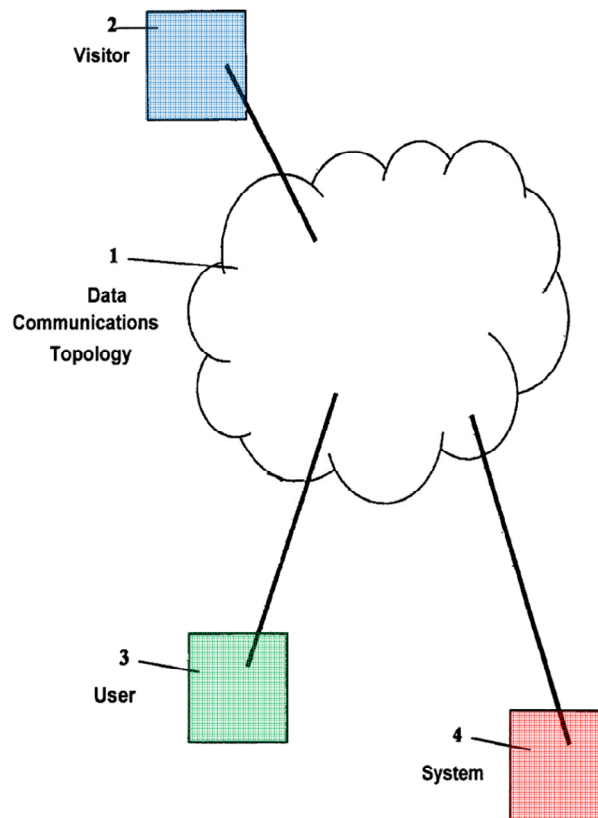
III. THE '904 PATENT

A. Brief Description of the '904 Patent

Referring to the example of Figure 1 below, the '904 Patent is directed to accumulating, in a databank maintained by a **system**, “descriptive profile data” about an online **visitor** to an Internet website and using these data for targeting third-party advertisements. LIVEINTENT1001, abstract; *see* LIVEINTENT1001, 3:64-4:44, 8:40-9:52, 11:39-13:57. A visitor visits a website of a **user**—which, in the context of the '904 Patent, corresponds to the entity that provides profile attributes to the databank (LIVEINTENT1001, 2:60-64, 8:9-16)—and the website collects information about the visitor. LIVEINTENT1001, 8:43-47; *see* LIVEINTENT1001, 3:64-4:4, 11:40-45. In a transaction between the website and the system, the system identifies a databank profile matching a visitor profile provided by the website and then either sells to the website new attributes about the

visitor found in the databank profile or buys certain attributes in the visitor profile that were not previously present in the databank profile. LIVEINTENT1001, 8:50-62, 9:15-17, 9:53-10:49, fig.2; *see* LIVEINTENT1001, 4:4-44, 9:2-39, 11:45-12:24, 12:55-13:57.

Fig. 1



LIVEINTENT1001, fig.1 (annotated).

B. Summary of the Prosecution History of the '904 Patent

During prosecution, the U.S. Patent and Trademark Office (Office) issued a single office action rejecting the claims on the ground of non-statutory

obviousness-type double patenting. LIVEINTENT1002, 71-72. The applicant filed a terminal disclaimer, and the Office then allowed the claims. LIVEINTENT1002, 33-40, 48-49, 52.

IV. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art (POSITA) relating to the subject matter of the '904 Patent as of the Critical Date would have had (1) at least a bachelor's degree in computer science, computer engineering, electrical engineering, or a related field, and (2) at least two years of industry experience in distributed computing systems or a related field. LIVEINTENT1003 ¶¶107-110. Additional education could substitute for professional experience, and professional experience for education. *Id.*

V. CLAIM CONSTRUCTION

Petitioner submits that terms of the Challenged Claims do not require formal construction for the obviousness grounds in this Petition. *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011). Petitioner may respond to any other constructions Patent Owner raises or the Board adopts. *Parkervision, Inc. v. Vidal*, 88 F.4th 969, 980 (Fed. Cir. 2023).

VI. THE CHALLENGED CLAIMS ARE UNPATENTABLE.

A. [GROUND 1A] Robinson-Jaye Renders Obvious Claims 1, 3-7, 9-11, 13-17, 19-21, 23-27, and 29-30.

1. Robinson Discloses a Central System That Tracks, in User Profiles, Web Activity of Users as Users Visit Tracking-Enabled Web Pages.²

In Robinson, as illustrated in the diagram below,³ a company providing Smart Ad Box services runs a central system including a central database and server that, akin to the system in the '904 Patent, stores information related to users (analogous to the visitors in the '904 Patent) as the users operate user machines to access tracking-enabled web pages and sites on host machines.

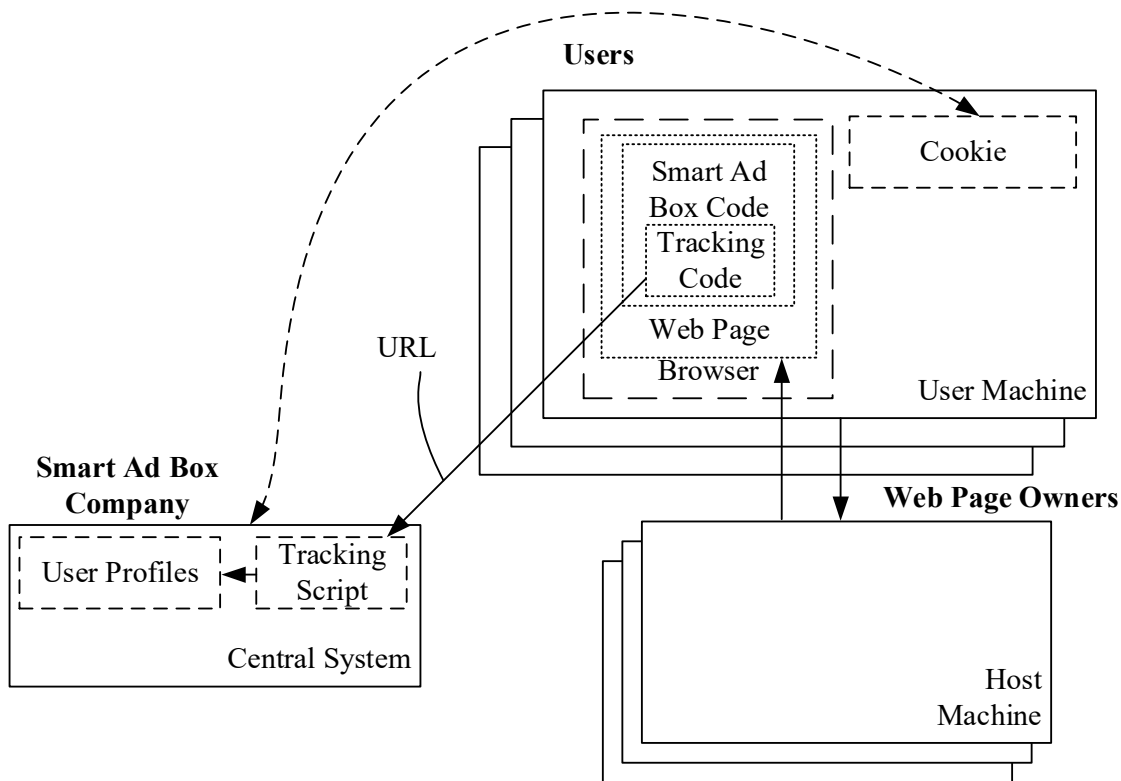
LIVEINTENT1004, 3:61-4:6, 8:40-60, 9:4-45, 10:23-29, 13:43-49, 13:61-64; *see* LIVEINTENT1004, 2:49-51, 5:10-6:51, 7:66-8:20, 13:22-14:67. Smart Ad Boxes enable tracking-enabled pages to display advertising on a small area of the page that the user visits. LIVEINTENT1004, 4:8-13, 8:64-9:7; *see* LIVEINTENT1004, 4:39-4:67, 15:14-19:26. To provide the Smart Ad Box, code (e.g., HTML code) on

² Descriptions of the references and combinations thereof are incorporated into each mapping that includes citations to these references.

³ This diagram of Robinson's system prepared by Petitioner is consistent with an exemplary system described in Robinson, e.g., at the portions of Robinson cited throughout this section and elsewhere.

the page draws the graphical box for the advertisement and updates the central database with information collected about the user. LIVEINTENT1004, 4:39-67, 8:64-9:35, 9:65-10:7, 13:24-30; *see* LIVEINTENT1003 ¶10.

Petitioner-Provided Diagram 1: Robinson's System



Like the system described in the '904 Patent, the central system tracks user activities to generate user profiles. LIVEINTENT1004, 3:61-4:6; *see* LIVEINTENT1004, 15:43-54, 18:60-67. For example, as shown in the diagram above, each time a user references a tracking-enabled page, Smart Ad Box code on the page calls on a tracking script that: (1) is accessible through one URL, (2) is

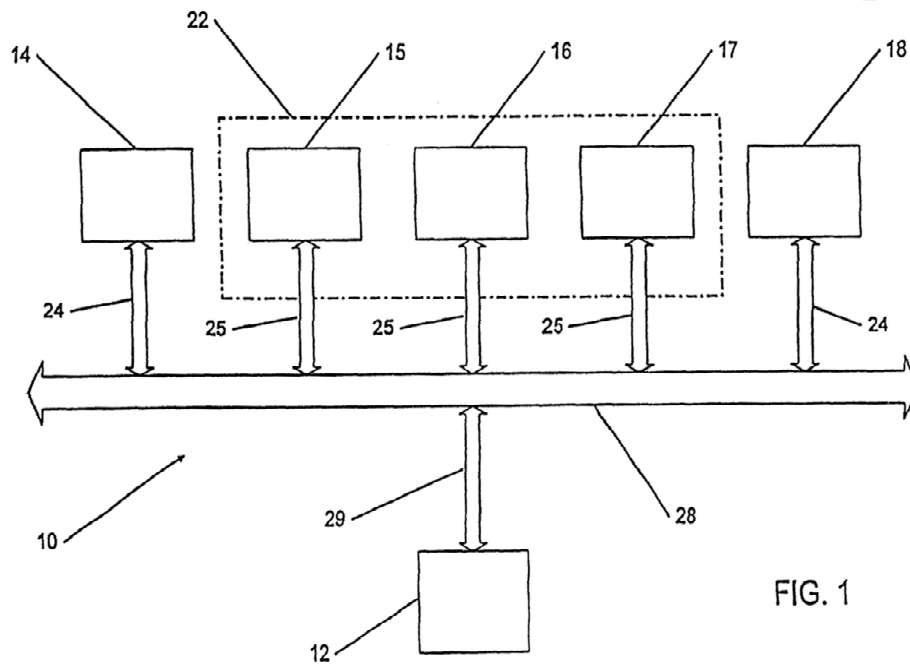
hosted on the central system, and (3) stores or accesses a cookie on a user machine to identify the user from session to session. LIVEINTENT1004, 9:12-16, 9:21-35, 9:36-53, 10:8-14. With the tracking script, the central system collects information relating to the user and user's visit to the page and aggregates this information in a profile of the user that the central system uses to identify similarities with profiles of other users. LIVEINTENT1004, abstract, 2:31-48, 9:8-35, 10:8-14, 15:16-54, 18:60-19:5; *see* LIVEINTENT1004, 5:30-36, 5:41-45, 6:38-42, 9:25-27, 13:65-14:8; LIVEINTENT1003 ¶11.

The information in the central system—like the information in the databank of the system in the '904 Patent—is used to determine an advertisement to present to the user in the Smart Ad Box. LIVEINTENT1004, 15:15-62; *see* LIVEINTENT1004, 2:23-3:15, 3:64-4:6, 4:51-64, 16:49-18:67, fig.1. The system selects an advertisement to display to the user based on a degree of similarity or closeness (e.g., based on a similarity in page visits) between that user and other users. LIVEINTENT1004, 15:15-21, 15:43-50; *see* LIVEINTENT1004, 2:58-3:15, 3:65-4:6, 16:1-18:59, fig.1. Robinson describes, for example, predicting a user's interest in an advertisement based on tracked information about the user and the other users. LIVEINTENT1004, 15:15-19, 16:3-38, 16:53-67, 17:22-28, 18:18-21, 18:55-59; *see* LIVEINTENT1004, 2:63-67, 16:1-18:59; LIVEINTENT1003 ¶12.

2. Jaye Discloses a Network of Local Servers and an Enterprise Server in Which the Local Servers Collect Local User Profiles That the Enterprise Server Compiles in Global User Profiles.

Referring to Figure 1 below, Jaye discloses a computer network including local servers (e.g., local server 15 or 17), a client 12 (e.g., a user's machine), and an enterprise server 16 analogous to the system in the '904 Patent.

LIVEINTENT1005, 4:5-27; LIVEINTENT1003 ¶¶13-17. The local servers assign their own local user identifiers to the client 12 (e.g., local cookies) so that the local servers can build local user profiles about the client. LIVEINTENT1005, 2:2-6, 2:18-21, 2:55-58, 3:3-5, 3:14-17, 3:48-49, 5:49-51, 5:55-67, 6:67-7:11, figs.2, 4; *see* LIVEINTENT1005, 5:31-6:11, 6:12-7:26, 8:40-10:41; LIVEINTENT1003 ¶¶13-17. The enterprise server 16 assigns a global user identifier to the client, links the global user identifier to the local user identifiers, and builds a global user profile using the local user profiles. LIVEINTENT1005, 2:6-24, 5:51-56, 6:6-11, 8:10-52; *see* LIVEINTENT1005, abstract, 2:50-3:39, 3:49-55, 5:31-6:11, 7:37-8:39, 10:22-13:41, 14:22-25, figs.2-4; LIVEINTENT1003 ¶¶13-17.



LIVEINTENT1005 fig.1.

According to Jaye, the enterprise server 16 can assign a global user identifier to the user and link the global user identifier to a local user identifier is for the local server to use a forced transfer or URL redirection from a web page of the local server to the enterprise server 16. LIVEINTENT1005, 6:32-46, 7:46-8:39, figs.2-3.

When the client 12 requests a web page from the local server, the local server sets a local user identifier and then redirects (e.g., forces a transfer of) the client 12 to the enterprise server 16 by inserting on the web page a special URL.

LIVEINTENT1005, 6:32-46; *see* LIVEINTENT1005, 2:43-48, 4:64-5:4, fig.2;

LIVEINTENT1003 ¶18.

The special URL points the client 12 to the enterprise server 16 and provides a graphics image having zero width and height akin to what is known in the art as a “pixel tag.” LIVEINTENT1005, 6:32-6:46; *see* LIVEINTENT1005, 2:43-48, 4:64-5:4; LIVEINTENT1003 ¶19. The local server appends information to the end of the special URL—including a local server identifier and client information such as the local user identifier—that the enterprise server 16 uses to create a database of records that map the global user identifier to the local user identifier. LIVEINTENT1005, 6:40-46, 8:10-28, figs.2-3. Jaye offers the following example of the special URL: http://enterprise_server_id/go?local_server_id&client_information. LIVEINTENT1005, 6:40-46.

After registering the local user identifier, the local server collects local session information related to the client 12. LIVEINTENT1005, 7:7-21, 8:29-34, 8:44-10:29, figs.4-5; *see* LIVEINTENT1003 ¶20. The local server then uploads the gathered information to the enterprise server 16 with the local user identifier and the local server identifier, and the enterprise server 16 combines this information with information collected from other local servers to create a global user profile associated with the global user identifier. LIVEINTENT1005, 7:21-45, 8:34-52, 10:29-10:41, figs.4, 6; *see* LIVEINTENT1005, 10:42-13:18; LIVEINTENT1003 ¶20.

The enterprise server may release the global user profile to an advertiser,

only those portions that are of interest to the advertiser and/or to which the advertiser subscribes.” LIVEINTENT1005, 14:22-25; LIVEINTENT1003 ¶21.

3. Robinson-Jaye Combination

(a) *A POSITA Would Have Been Led to Combine Robinson’s and Jaye’s Teachings.*

A POSITA would have found it obvious to implement in Robinson a distributed identification and user tracking scheme as taught in Jaye to enable Robinson’s host machines (that host sites and pages of those sites) to: (1) create local user identifiers for locally tracking information about a user; (2) communicate these local user identifiers to Robinson’s central system to allow the central system to map the local user identifiers to a single global user identifier or cookie for the user; and (3) store and track information about the user to build a local user profile and upload the local user profile to the central system for building a global user profile for the user. LIVEINTENT1003 ¶¶22-34.

A POSITA would have recognized that Robinson’s system is ready for improvement in view of Jaye’s teachings. Robinson teaches Smart Ad Box code that: (1) includes tracking code allowing the central system to access a single cookie stored on the user machine to identify the user, track the user’s activities as the user visits tracking-enabled pages hosted by different host machines, and store this tracked information in the central database (LIVEINTENT1004, 2:49-57,

8:40-9:37, 10:8-14), and (2) selects and displays advertising targeted to the user based on the tracked information (LIVEINTENT1004, 2:13-67, 4:8-67).

LIVEINTENT1003 ¶23.

Based on Jaye's teachings, a POSITA would have identified a desire to enable host machines to (1) customize their web pages "on the fly" for each user based on a local user profile created from the user's locally tracked activity on the host machine (LIVEINTENT1005, 1:28-45) and (2) use local identification schemes to identify users and obtain information about the users over multiple sessions while avoiding privacy concerns implicated by a single, shared global identifier accessible by all servers (e.g., host machines and the central system) who interact with a user (LIVEINTENT1005, 1:45-61, 2:1-6, 5:20-51, 8:53-55). LIVEINTENT1003 ¶23.

As a POSITA would have discerned, Robinson describes the central system tracking, storing, and using information about users visiting web pages to generate a global user profile for enabling targeted advertising to be displayed on the pages but does not describe the host machine using its own local identification scheme for (1) reidentifying users that return to pages on the same host machine over multiple sessions and (2) generating a local user profile from locally tracked information to enable that host machine to tailor non-advertising-related web page content to the user. LIVEINTENT1003 ¶24.

To remedy these deficiencies, a POSITA would have been led to implement Jaye's distributed user identification and tracking scheme in Robinson to enable local host machines to track and store a user's activities in local user profiles associated with local user identifiers. LIVEINTENT1005, 1:28-45, 1:62-2:11; *see* LIVEINTENT1003 ¶¶25-26. This would allow a given host machine to reidentify users that return to pages hosted by the host machine to create the local user profiles and to use the local user profiles to tailor non-advertising web page content to that user while maintaining the central system's ability to track user activity across multiple host machines for the purpose of serving more effective targeted advertisements, as both Robinson and Jaye teach. LIVEINTENT1004, 2:28-31, 2:49-51, 4:9-14, 4:61-6:5; LIVEINTENT1005, 1:28-45, 1:62-2:11, 2:1-14, 3:49-50, 3:54-55, 8:40-52, 9:5-41, 10:22-41, 14:22-25; *see* LIVEINTENT1003 ¶26. As a result, in Robinson-Jaye, both the host machines and the central system would use the information in the local user profiles to deliver targeted content (e.g., including both non-advertising and advertising content) to users. *See* LIVEINTENT1004, 2:31-38, 9:21-35, 13:65-14:8, 15:36-50, 16:53-61, 17:2-4; LIVEINTENT1005, 2:6-10, 7:7-36, 8:29-52, 9:27-10:11, 14:22-25; LIVEINTENT1003 ¶26.

Combining Robinson's and Jaye's teachings also would have involved combining known prior art elements (Robinson's Smart Ad Box system for tracking and storing global user activity to present targeted advertising and Jaye's system

for tracking and storing local user activity for the purpose of tailoring web page content) according to known methods (storing and tracking local user identifiers in the central system via special URLs, using the local user identifiers to track local user activity to build local user profiles, and uploading the local user profile to the central system as Jaye teaches) to yield predictable results (the host machines storing and tracking local user identifiers, providing the central system with the local user identifiers via the special URL, and sending the local user profiles to the central system). *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007); LIVEINTENT1003 ¶27.

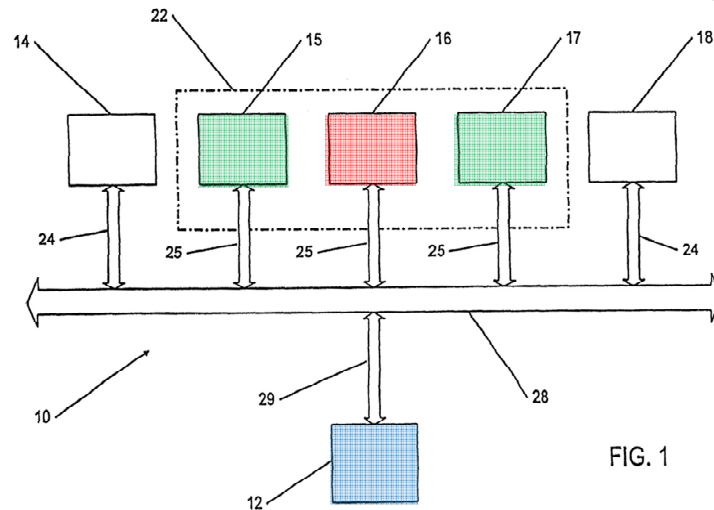
A POSITA would have found this combination to be predictable and to have a reasonable expectation of success at least because Robinson and Jaye disclose similar network architectures, web page configurations, and methods of tracking users. LIVEINTENT1003 ¶¶25, 28-34.

First, as shown in the diagrams of Robinson and Jaye below, like Robinson, Jaye teaches a system that involves a **central enterprise server 16** (analogous to Robinson's **central system**) that collects information to create a global user profile (analogous to the user information tracked by Robinson's central system) about the **client** (analogous to Robinson's **user machine**) as the client visits pages hosted by disparate **local servers** (analogous to Robinson's **host machines**).

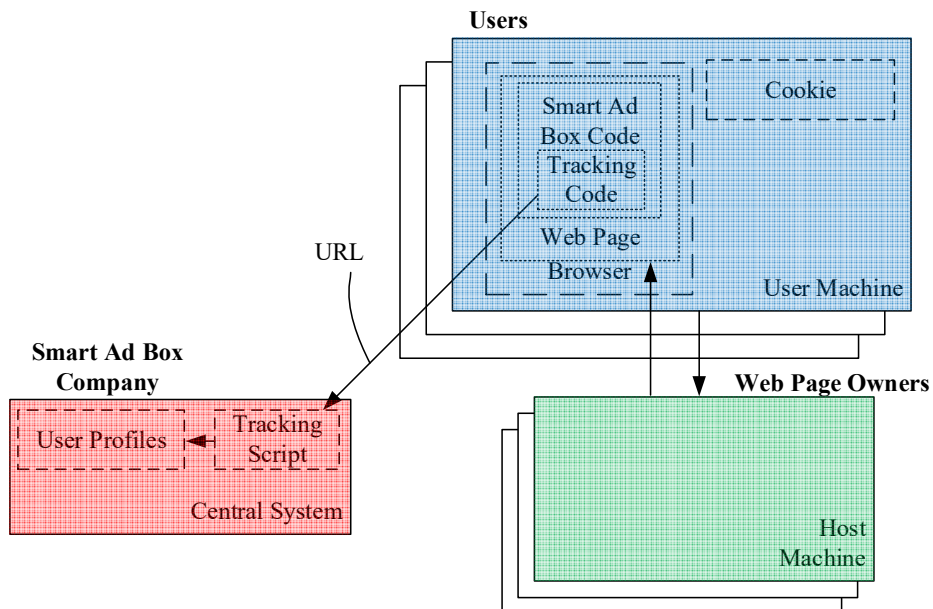
LIVEINTENT1004, 8:61-9:20; LIVEINTENT1005, 3:49-50, 3:54-55, 4:5-27,

8:40-9:41, 10:22-41; *see* LIVEINTENT1003 ¶¶25, 29; *supra* §§VI.A.1-2.

**Petitioner-Provided Diagram 2: Annotated Figure 1 of
Jaye**



Petitioner-Provided Diagram 3: Robinson's System



Second, Robinson and Jaye both disclose tracking user information as a user interacts with a page on a local server or host machine and teach tracking similar

information about users, including time spent on a page, user clicks, frequency of page visits, nature of content on web pages, and a user's interest in particular categories. LIVEINTENT1004, 2:31-38, 8:61-9:53, 15:16-18:59; LIVEINTENT1005, 4:64-5:19, 6:12-7:26, 8:29-52, 9:5-10:41; *see* LIVEINTENT1003 ¶¶25, 30.

Third, Robinson and Jaye both disclose using a global user identifier to allow a central server or system to identify a user for creating a global profile of information about the user. LIVEINTENT1004, 9:12-16, 9:21-35, 9:36-53, 10:8-14; LIVEINTENT1005, 6:40-46, 8:10-28; *see* LIVEINTENT1003 ¶¶25, 31.

Fourth, Robinson and Jaye both disclose using URLs on pages hosted by host machines to point a user's browser to the central system. LIVEINTENT1004, 9:12-13, 9:47-53; LIVEINTENT1005, 6:38-40; *see* LIVEINTENT1005, 6:36-56, 7:52-53; LIVEINTENT1003 ¶¶25, 32.

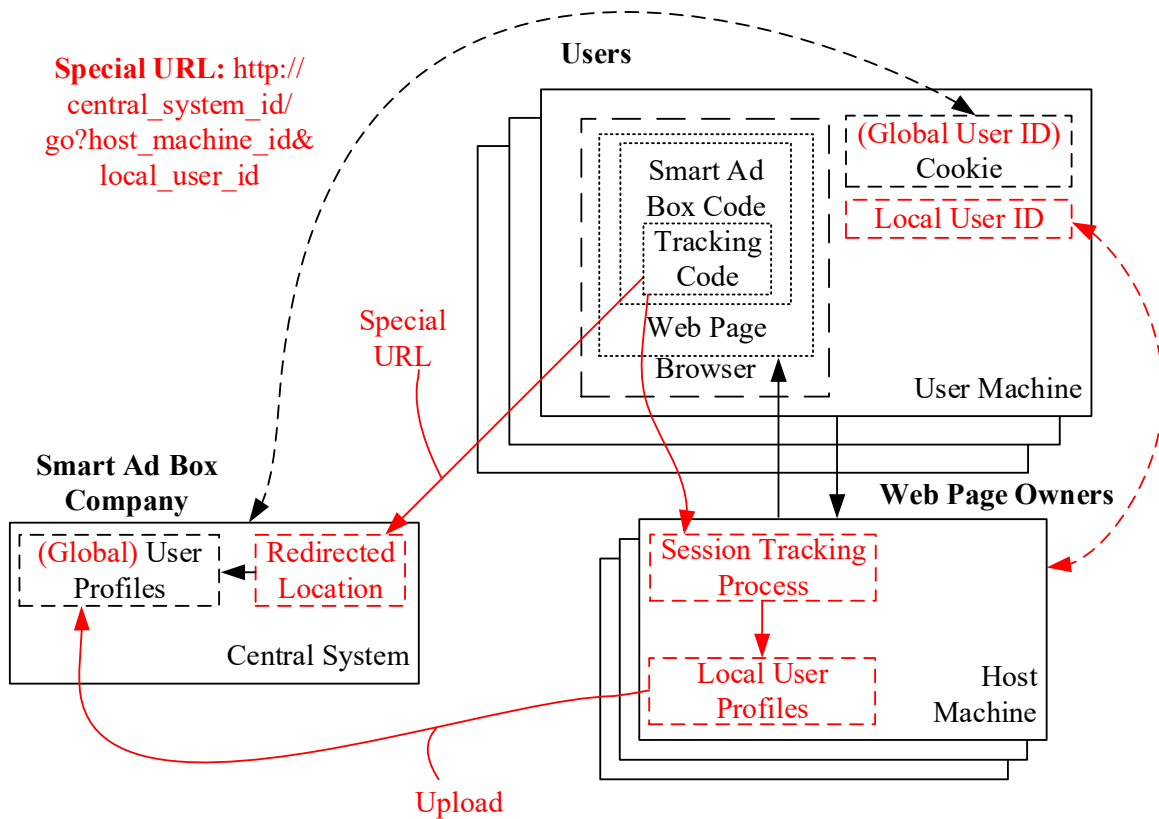
Finally, Robinson and Jaye both teach implementing their systems using conventional computer hardware with processes being implemented by the hardware using conventional computer software techniques. LIVEINTENT1004, 8:41-50, 8:61-9:20, 9:49-53, 19:27-33; LIVEINTENT1005, 4:5-23, 13:42-62; LIVEINTENT1003 ¶¶25, 33.

(b) The Combined Robinson and Jaye System

To achieve the benefits articulated above, a POSITA would have combined Robinson's and Jaye's teachings in the manner described below and as depicted in

the diagram below. LIVEINTENT1003 ¶35.

Petitioner-Provided Diagram 4: Robinson-Jaye Combination (Modifications to Robinson's System Indicated in Red)



First, a POSITA would have implemented in Robinson a local user identification scheme as taught in Jaye.

Consistent with Jaye's teachings, a POSITA would have configured Robinson's host machine to create a local user identifier on a user machine and configured Robinson's tracking code to redirect the user machine to the central system to

register the local user identifier with the central system. LIVEINTENT1005, 2:6-10, 5:49-6:46, 7:21-26, 8:10-39. The host machine would create the local user identifier when the user machine first accesses a page hosted by the host machine to allow the host machine to reidentify the user machine—and hence the user—in subsequent visits. LIVEINTENT1005, 5:49-6:46, 8:29-39; *see* LIVEINTENT1003 ¶36.

As Jaye teaches, the host machine would force the transfer of the user machine to the central system using the special URL implemented in Robinson’s tracking code to enable the central system to map a local user identifier and a host machine identifier (“site identifier for the local server” or “information identifying the local server,” LIVEINTENT1005, 7:31, 8:25-26) to the global user identifier. LIVEINTENT1005, 2:6-10, 5:49-6:11, 6:40-46, 7:21-26, 7:46-7:53, 8:10-39; *see* LIVEINTENT1003 ¶37. The special URL would (1) redirect the user machine to the central system to allow the central system to access the global user identifier on the user machine. (LIVEINTENT1005, 6:32-46, 7:46-8:14) and (2) include as appended information the local user identifier and the host machine identifier to allow the central system to access these identifiers (LIVEINTENT1005, 6:32-46, 7:46-52). *See* LIVEINTENT1003 ¶37.

In accordance with both Robinson’s and Jaye’s teachings, the cookie identifying the user machine to the central system would function as a global user

identifier to which information collected about the user is correlated and that is known to only the central system. LIVEINTENT1004, 8:40-50; LIVEINTENT1005, 5:51-5:56, 6:6-11; *see* LIVEINTENT1003 ¶38. As both Robinson and Jaye teach, if the central system cannot identify a global user identifier on the user machine (e.g., because the user machine has not previously accessed the central system or because the global user identifier has expired), the central system would assign the user a global user identifier. LIVEINTENT1004, 10:8-29; LIVEINTENT1005, 7:58-8:28; *see* LIVEINTENT1003 ¶38.

Second, a POSITA would have implemented in Robinson a process for creating local user profiles as taught in Jaye.

Consistent with Jaye's teachings, a POSITA would have configured Robinson's host machine to, after registering the local user identifier with the central system, create a local user profile associated with the local user identifier and upload this local user profile with the local user identifier and the host machine identifier to the central system for storing in the user's global user profile.

LIVEINTENT1005, 3:49-50, 3:54-55, 7:7-31, 8:40-52, 9:5-41, 10:22-41; *see* LIVEINTENT1003 ¶¶39-45; *see also* LIVEINTENT1004, 9:17-20 (Robinson contemplating the host machine collecting user information and then communicating the information to the central system).

As Jaye teaches, the host machine would initiate a local session tracking

process to track user activity in a local user profile as the user visits pages hosted by the host machine. LIVEINTENT1005, 3:49-50, 7:7-31, 8:40-52, 9:5-41, fig.2, fig.4; LIVEINTENT1003 ¶40. The host machine would upload the local user profile, with the local user identifier and the host machine identifier, to the central system, which identifies the global user profile associated the local user identifier (using the previously created mapping) and updates the global user profile identified by the user's global user identifier. LIVEINTENT1005, 3:51-55, 5:49-6:11, 7:19-36, 8:10-52, 10:22-41, fig.4; *see* LIVEINTENT1005, 2:6-10, 3:6-9, 3:17-21, 5:5-19, figs.2-4; LIVEINTENT1003 ¶40.

The uploaded local user profile would include, as Robinson and Jaye teach: (1) information about the site or page visited by the user, (2) information about an advertisement presented to the user in the Smart Ad Box, (3) information about a purchase made by the user on site or page, and (4) information about other characteristics of the user. *See* LIVEINTENT1004, 2:31-48, 3:19-23, 3:35-39, 4:30-37, 6:53-7:25, 8:16-20, 9:21-35, 13:65-14:8, 14:55-58, 15:29-42, 16:3-8, 16:53-58, 17:2-3; LIVEINTENT1005, 7:7-36, 8:29-52, 8:62-65, 9:27-10:11, 10:36-39, 13:19-31; *see* LIVEINTENT1003 ¶41. For example:

- Information about the site or page would include: (1) a site or host machine identifier of the site, (2) page identifier(s) of the page(s) visited by the user, (3) the duration of time spent on a page or site, (4) user clicks on

the page or site, (5) frequency of page or site visits, (6) the nature, content, and interest categories of the visited web sites and pages, and (7) any ratings supplied by the user on the site or page.

LIVEINTENT1004, 2:31-48, 9:21-35, 13:65-14:8, 15:36-42;

LIVEINTENT1005, 7:7-36, 8:29-52, 9:27-10:11; *see* LIVEINTENT1003 ¶41.

- Information about the advertisement would include: (1) the identifier of the advertisement, (2) whether the user clicked on the advertisement, (3) whether the user rejected the advertisement or expressed disinterest in an advertisement, and (4) a number of a user's impressions of an advertisement before the user clicked on the advertisement.

LIVEINTENT1004, 2:44-48, 9:29-33, 17:2-3; *see* LIVEINTENT1004, 5:4-9; LIVEINTENT1003 ¶41.

- Information about the purchase would include: (1) an identifier of any purchased items, (2) the price of items on the host machine's page or site, and (3) an amount of money spent by the user while visiting the page or site. LIVEINTENT1004, 2:39-41, 9:25-27, 9:34-35; *see* LIVEINTENT1003 ¶41.

- Information about other characteristics of the user would include demographic and geographic information about the user. LIVEINTENT1004,

abstract, 3:19-23, 3:35-39, 4:30-37, 6:53-7:16, 7:18-25, 8:16-20, 14:55-58, 15:29-35, 16:3-8; LIVEINTENT1005, 8:62-65, 10:36-39, 13:19-31; *see* LIVEINTENT1003 ¶41.

In implementing Robinson-Jaye, a POSITA would have included in the uploaded profile information the host machine identifiers, as both Robinson and Jaye teach. LIVEINTENT1004, 2:31-38, 13:65-14:8, 15:36-42; LIVEINTENT1005, 7:27-36. A POSITA would have done this so that: (1) owners of host machines could determine their compensation for displaying Smart Ad Box advertisements on their sites (*see* LIVEINTENT1004, 13:58-14:8); (2) the central system could track an accumulation of compensation to which a host machine's owner is entitled for displaying advertisements (*see* LIVEINTENT1004, 14:33-41); and (3) the central system could track the nature of content or subject matter of sites and pages and the typical characteristics of users who visit the site and the pages, and further determine the interests and other characteristics of users based on this information (*see* LIVEINTENT1004, 2:35-48, 15:30-50; LIVEINTENT1005, 8:40-9:4, 9:42-10:11, 10:22-41, 11:45-13:18, figs.5-6). *See* LIVEINTENT1003 ¶42. The host machine identifier is, for example, a site identifier or a URL of a site, and, therefore, the host machine identifier identifies both the host machine and the site, making inclusion of the host machine identifier not only useful in identifying the host machine, but also in identifying the site and its associated content. *See*

LIVEINTENT1004, 2:31-38, 13:65-14:8, 15:36-42; LIVEINTENT1005, 4:53-63, 8:23-26; *see* LIVEINTENT1003 ¶42.

Finally, a POSITA would have implemented Robinson-Jaye to include a process for presenting targeted advertising to users.

A POSITA would have implemented Robinson-Jaye such that, when the user visits a page, the Smart Ad Box would appear on the page and the user would see an advertisement targeted to the particular user. LIVEINTENT1005, 4:43-46; *see* LIVEINTENT1003 ¶¶46-50. A POSITA would have implemented in Robinson-Jaye the user tracking process in Jaye—including the process for identifying user interests based on the interests of the pages visited by the user and adding these user interests to the global user profile—to provide more effective targeted advertising to the user. LIVEINTENT1005, 10:42-46, 11:45-51; *see* LIVEINTENT1005, 2:50-62, 9:42-12:65, figs.5-6; LIVEINTENT1003 ¶47; *supra* §VI.A.3(a). The central system would use the uploaded local profile information to determine user interests and use the determined interests to identify targeted advertising to present to the user, as taught in both Robinson and Jaye. LIVEINTENT1004, 15:16-28; LIVEINTENT1005, 10:42-46, 11:45-51; *see* LIVEINTENT1004, 1:27-44, 2:9-22, 2:23-51, 3:64-4:6, 4:51-64, 15:14-18:67; LIVEINTENT1005, 9:42-12:65, 14:22-25, figs.5-6; LIVEINTENT1003 ¶47.

The Robinson-Jaye combination would therefore enable host machines to

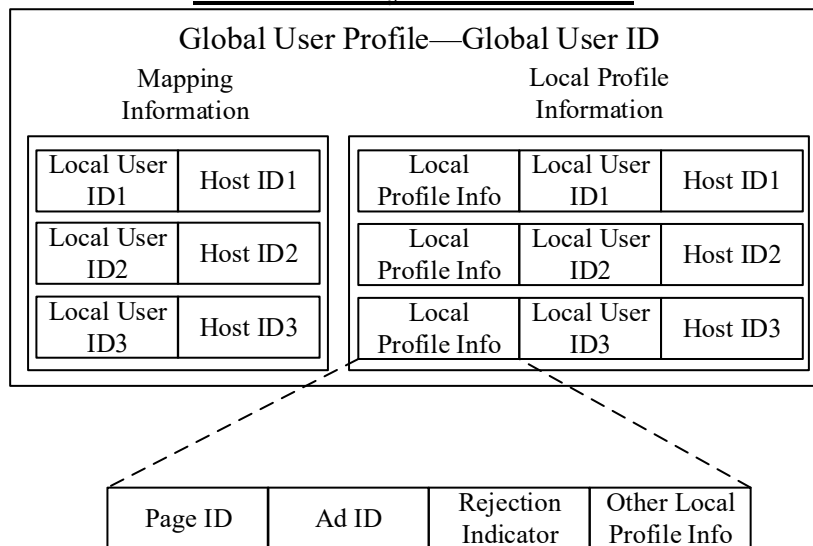
build and use local user profiles to tailor non-Smart Ad Box content to the users while also enabling the central system to build global user profiles capturing the interests of users to thereby provide more effective targeted advertisement through the Smart Ad Box. LIVEINTENT1004, 4:9-14, 9:21-35, 15:16-16:67; LIVEINTENT1005, 2:3-10, 9:27-10:21, 10:42-13:41; *see* LIVEINTENT1003 ¶50.

(c) *In the Robinson-Jaye Combination, a Global User Profile Stored in the Central System is Constructed from Local User Profiles Stored on Multiple Different Host Machines.*

The diagram below shows an example of a global user profile collected by the central system consistent with Robinson-Jaye. *See* LIVEINTENT1003 ¶¶51-54. The central system stores in a global user profile associated with a unique global user identifier (Global User ID) stored on a user machine: (1) mapping information that correlates local user identifiers (Local User ID1, Local User ID2, Local User ID3) and host identifiers (Host ID1, Host ID2, Host ID3) to the specific global user identifier associated with the global user profile by using the forced transfer process mediated by the special URL, and (2) local profile information uploaded by the host machines to the central system, which as discussed above, would be uploaded to and compiled by the central system with the local user identifier and the host machine identifier. *See* LIVEINTENT1003 ¶51; *supra* §VI.A.3(b). As indicated in the diagram below, each set of local profile

information provided by a corresponding host machine includes numerous pieces of information, including a page identifier, an advertisement identifier, a rejection indicator, and other local profile information. *See* LIVEINTENT1003 ¶51; *supra* §VI.A.3(b).

Petitioner-Provided Diagram 5: Global User Profile in Robinson-Jaye Combination

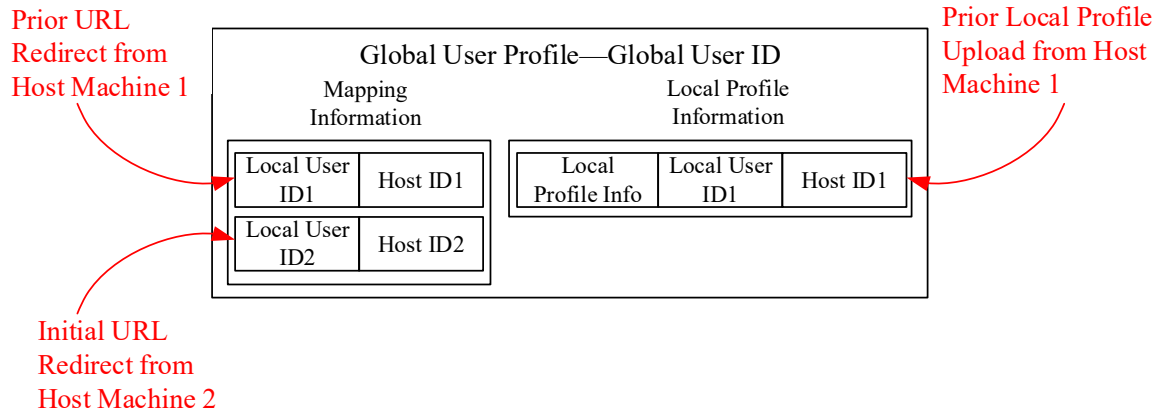


As depicted in the diagram below, when the user for this global user profile first visits a page hosted by Host Machine 2, the central system would receive Local User ID2 and Host ID2 via the special URL and would then store Local User ID2 and Host ID2 to correlate these identifiers with Global User ID. *See* LIVEINTENT1003 ¶52; *supra* §VI.A.3(b). In this example, Global User ID is assumed to have been previously generated (e.g., on the user’s prior visit to Host Machine 1 corresponding to Host ID1), and the central system is assumed to have previously collected Local Profile Information (e.g., when Host Machine 1 previously

uploaded local profile information). See LIVEINTENT1003 ¶52; *supra*

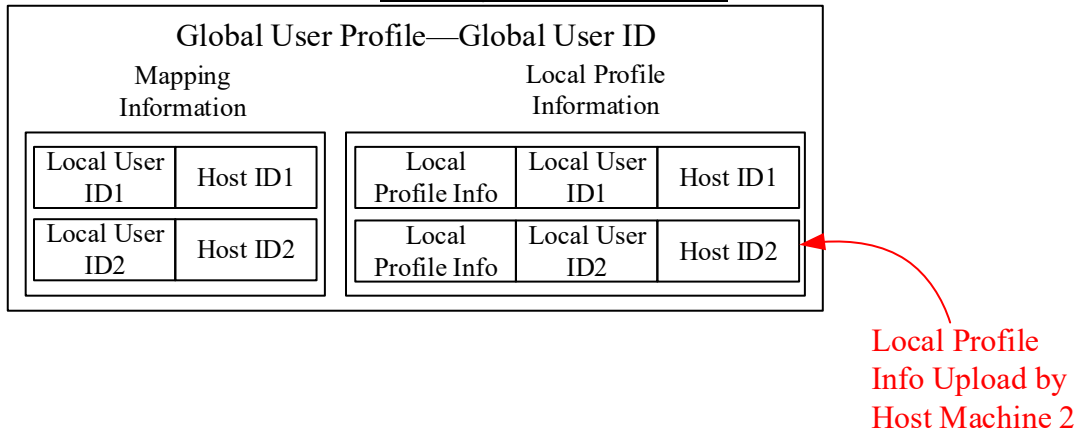
§VI.A.3(b).

**Petitioner-Provided Diagram 6: Generating Mapping
Information in the Global User Profile in Robinson-
Jaye Combination**



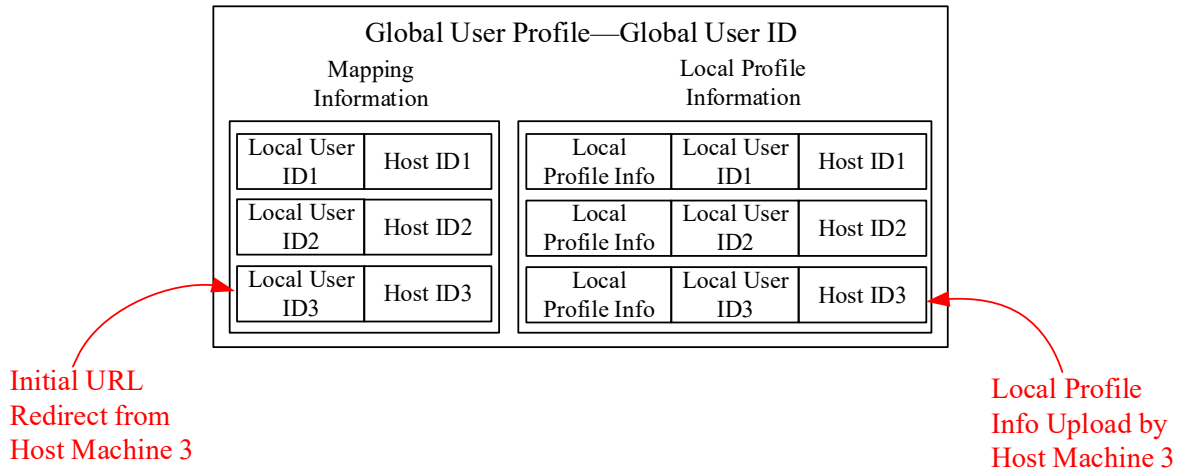
Then, after Local User ID2 and Host ID2 are correlated with Global User ID, Host Machine 2 would, consistent with Jaye’s teachings, upload local profile information collected over one or more sessions and/or visits by the user to Host Machine 2 and would forward this information with Local User ID2 and Host ID2. LIVEINTENT1005, 3:54-55, 7:27-31, 8:40-52, 10:22-41; LIVEINTENT1003 ¶53.

Petitioner-Provided Diagram 7: Collecting Local Profile Information in the Global User Profile in Robin-Jaye Combination



As shown in the diagram below, other host machines, e.g., Host Machine 3 and beyond, can subsequently communicate with the central system and provide local identifiers (Local User ID3, Host ID3) for the central system to correlate with Global User ID to facilitate later upload or uploads of local profile information to the central system by these host machines. LIVEINTENT1005, 3:54-55, 7:27-31, 8:40-52, 10:22-41; *see* LIVEINTENT1003 ¶54; *supra* §VI.A.3(b). A POSITA would have hence understood that the central system would store several different local user profiles as part of a global user profile, and each global user profile would be associated with a different user machine. *See* LIVEINTENT1003 ¶54; *supra* §VI.A.3(b).

**Petitioner-Provided Diagram 8: Collecting Additional
Local Profile Information in the Global User Profile in
Robinson-Jaye Combination**



Dr. Mitzenmacher provides a detailed discussion of technical features of an example implementation of Robinson-Jaye. LIVEINTENT1003 ¶¶55-82.

4. Claim 1

[1.pre]

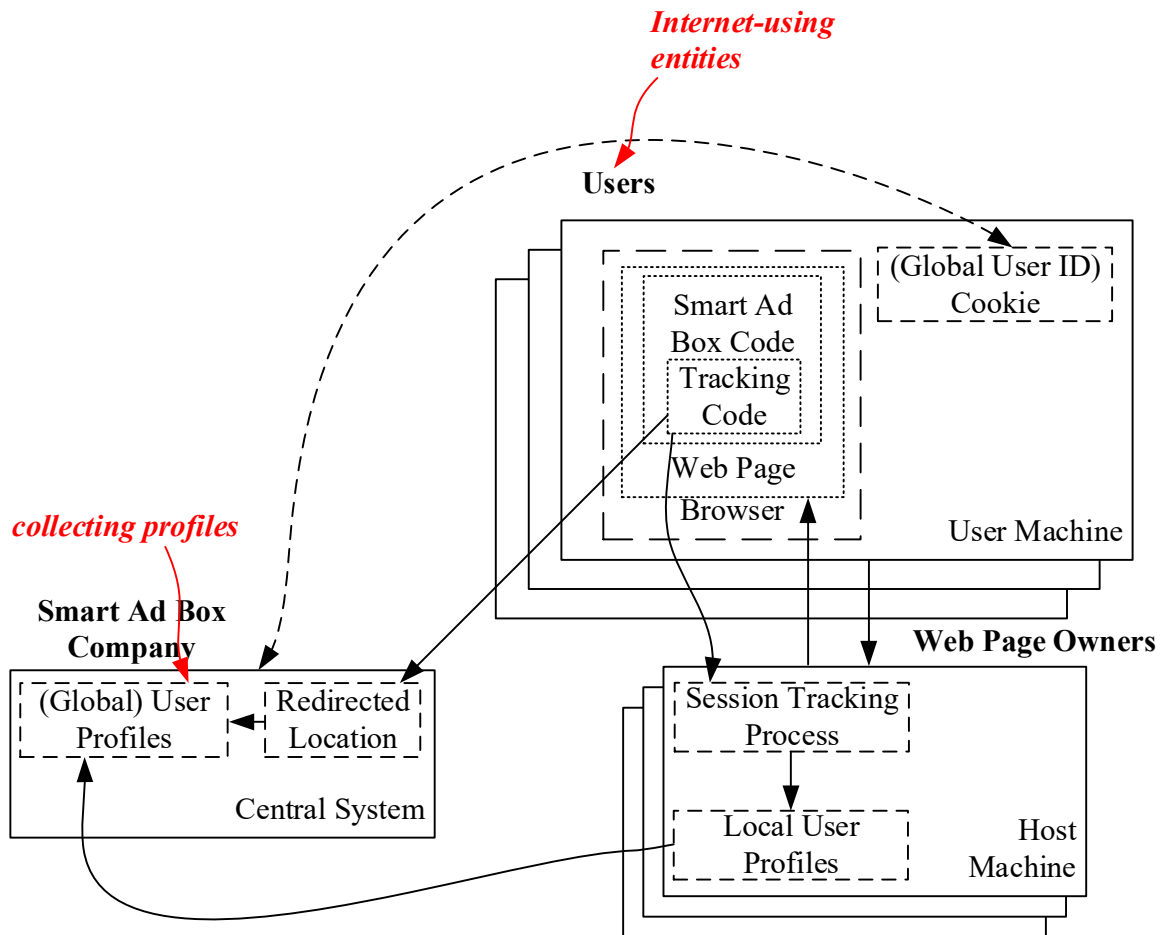
To the extent the preamble is limiting, as shown in the diagram below, Robinson-Jaye teaches collecting global user profiles (*collecting profiles*) of users that use user machines to access web pages (*of Internet-using entities*).

LIVEINTENT1003 ¶¶60-71, 105.[1.pre]. As Robinson describes, “[e]very time a user visits a tracking-enabled page, [the] central database [is] updated to indicate that that particular user visited that page,” stores other types of information tracked about the user’s activities, and uses that information as a “profile[]” to “compute

degrees of similarity” with other users.⁴ LIVEINTENT1004, 9:8-10, 9:21-22, 15:29-36, 15:51-54; *see* LIVEINTENT1004, abstract, 2:13-67, 10:10-17, 18:44-19:5, fig.1. Robinson-Jaye’s process involves, consistent with Jaye’s teachings, correlating the local user identifiers with the global user identifier (the cookie in Robinson-Jaye) and compiling the local user profiles into a global user profile for the user that is identified by the global user identifier. LIVEINTENT1005, 8:10-28, 8:40-8:52; *see* LIVEINTENT1004, 9:4-37, 10:10-17; LIVEINTENT1005, abstract, 2:11-3:40, 3:49-60, 6:32-58, 7:46-49, 8:10-9:8, 10:42-46, figs.2, 4-7; *supra* §§VI.A.3(b)-(c).

⁴ All underlined emphases in quotations from references are added unless otherwise indicated.

Petitioner-Provided Diagram 9: Element [1.pre] in Robinson-Jaye



The local user profiles and the global user profiles in Robinson-Jaye are consistent with the “*profiles of Internet-using entities*” described in the ’904 Patent, and Patent Owner cannot demand more from the prior art than what the ’904 Patent teaches with respect to this feature. *See In re Epstein*, 32 F.3d 1559, 1568 (Fed. Cir. 1994). According to the ’904 Patent, a “profile” is “[a] collection of attributes that describe a person or an organization or any other entity that can be

described by a combination of data.” LIVEINTENT1001, 2:38-40.

In Robinson-Jaye, the information in the local user profiles and the global user profiles would be considered attributes as understood in the context of the '904 Patent. *See supra* §§VI.A.3(b)-(c). The tracked information in these profiles include attributes about users—and thus Robinson-Jaye involves “*collecting profiles of Internet-using entities*”—for the following reasons:

- The global and local user identifiers in Robinson-Jaye are “attributes that enable the identification of the [user] described by the profile, such as ... [a] cookie.” LIVEINTENT1001, 2:51-55; *see* LIVEINTENT1001, 3:64-4:10, 12:14-15; *supra* §§VI.A.3(b)-(c).
- The information about the user’s visit to particular pages and sites in Robinson-Jaye and the information about the user’s interactions with advertisements in Robinson-Jaye include “behavioral attributes” and “commercial attributes,” “relate[] to the behavioral characteristics or psychological makeup or predisposition of the [user],” and/or are analogous to the “information learned about the visitor to a web site from its http header,” the monitored “search habits” and “click through activity,” and the “surfing habits” described in the '904 Patent. LIVEINTENT1001, 2:55-59, 11:21-24, 12:36-54; *see supra* §VI.A.3(b).

- The information about a user's purchase on the page or site includes "behavioral attributes" and "commercial attributes" and/or are analogous to "details of product purchase transaction over the Internet" described in the '904 Patent. LIVEINTENT1001, 2:55-59, 11:21-24; *see supra* §VI.A.3(b).
- The information about other characteristics of the user includes "demographic attributes" and/or is analogous to "the person's gender, the person's age, [and] the person's education" described in the '904 Patent. LIVEINTENT1001, 2:40-45, 11:21-24; *see supra* §VI.A.3(b).

[1.a.i]

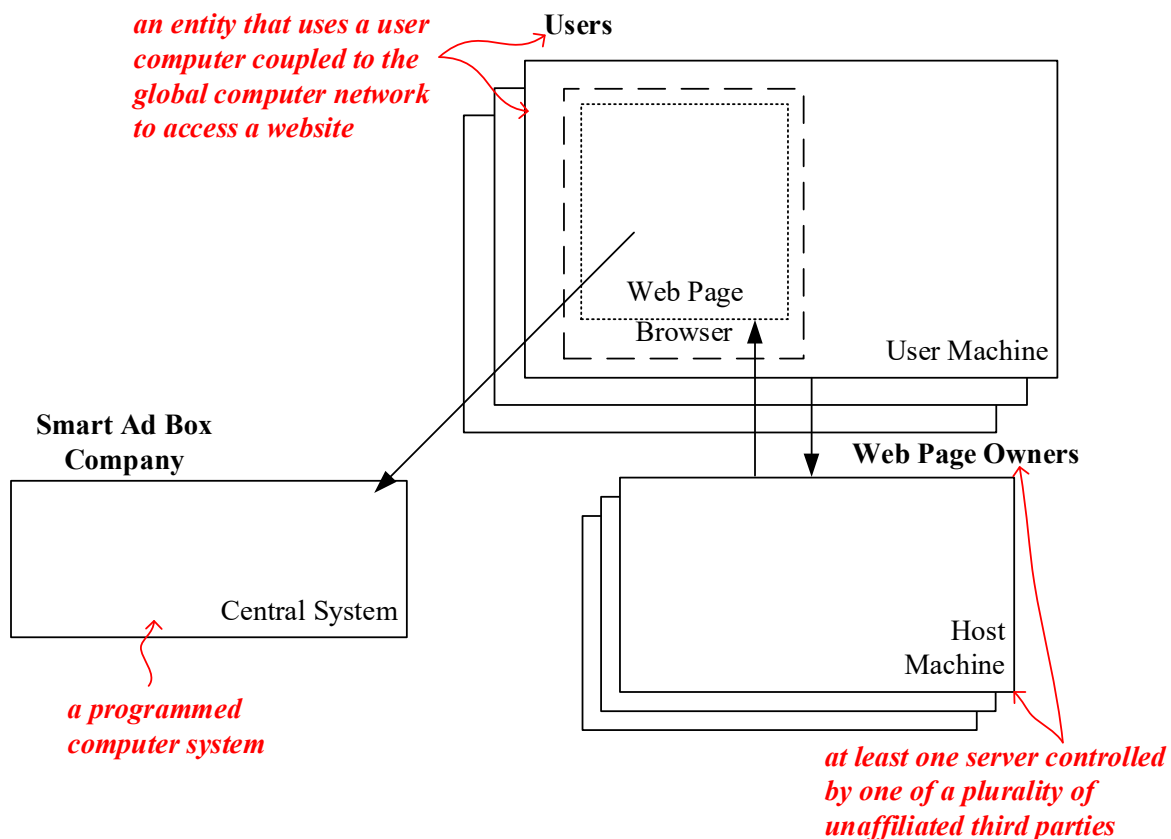
First, Robinson-Jaye renders obvious a "*programmed computer system*," "*at least one server*," and "*an entity that uses a user computer*."

In Robinson-Jaye, as shown in the diagram below and as taught in Robinson, the company providing Smart Ad Box services runs the central system including the "central database" and "central server machine," which are programmed to be updated with the tracked user information as users visit the tracking-enabled pages (*a programmed computer system coupled to a global computer network*).

LIVEINTENT1004, 8:40-9:20, 9:46-10:7; *see* LIVEINTENT1004, 1:12-15, 1:66-2:8, 5:11-13, 10:35-44, 19:27-33; LIVEINTENT1003 ¶¶59, 105.[1.a.i]. As Jaye further teaches, an "Internet computer network" includes the enterprise server

(analogous to the central system in Robinson-Jaye), the local servers (analogous to the host machines in Robinson-Jaye), and the client (analogous to the user machine in Robinson-Jaye). LIVEINTENT1005, 4:5-23; *see* LIVEINTENT1005, 1:10-14, 1:15-17, 3:10-14, 3:48-49, fig.1.

Petitioner-Provided Diagram 10: Element [1.a.i] in Robinson-Jaye



In Robinson-Jaye, as Robinson teaches, users operate user machines to access tracking-enabled web pages and, as Jaye teaches, can access “conventional Internet services” and “HTML pages” using the client (*an entity that uses a user computer coupled to the global computer network to access a website*).

LIVEINTENT1004, 3:61-4:6, 8:41-67, 9:4-45, 10:23-29; LIVEINTENT1005, 4:7-14, 4:64-66; *see* LIVEINTENT1004, 1:1-3, 1:12-20, 7:52-8:8, 8:21-28; LIVEINTENT1005, 4:45-5:4; LIVEINTENT1003 ¶¶57, 105.[1.a.i].

Host machines or servers host tracking-enabled web pages on participating websites (*at least one server*). LIVEINTENT1004, 9:49-50; *see* LIVEINTENT1004, 5:48-50, 6:38-42, 9:17-20, 13:22-26, 14:1-8; LIVEINTENT1003 ¶¶58, 105.[1.a.i]. As Jaye teaches, “Internet servers” corresponding to the “local servers”—analogous to the host machines in Robinson-Jaye—host web sites each with multiple pages and each having a host machine identifier or “site identifier.” LIVEINTENT1005, 4:46-5:4; *see* LIVEINTENT1005, 7:17-26, 8:23-26, 9:42-45, 10:12-21.

Moreover, in Robinson-Jaye, the host machines, which are not owned or controlled by the company that runs the central system, are *controlled by one of a plurality of unaffiliated third parties*, e.g., because (1) the host machines are separate from the machine hosting the central database, (2) the sites hosted on the host machines participate in Smart Ad Box services to enable the central database to track the users visiting their pages, (3) the sites receive payment from the Smart Ad Box company for displaying advertisements using the Smart Ad Box services, and (4) the sites provide the central database with rules or control records indicating a preference for certain advertisers or advertisements. LIVEINTENT1004, 4:39-42,

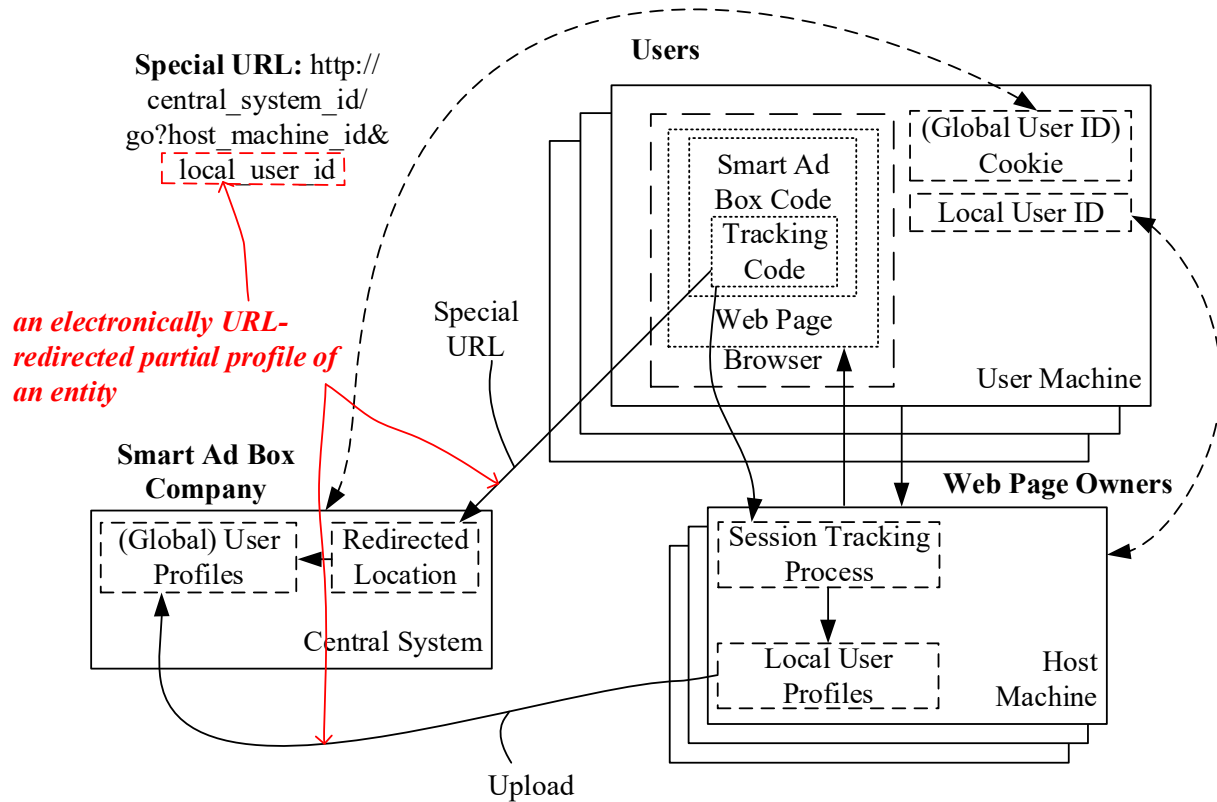
5:10-26, 6:13-37, 8:51-9:7, 9:12-16, 9:47-53, 13:22-39, 13:58-64; *see* LIVEINTENT1004, 1:59-63 (describing advertisers, ad agencies, and web sites as distinct interested commercial entities); LIVEINTENT1004, 13:31-34 (“The code [for tracking users] could be designed in such a way that there need be no direct communication between the people supplying the Smart Ad Box service and related services and the people who want to enable their Web site to participate in those services.”); LIVEINTENT1003 ¶¶58, 105.[1.a.i].

Second, Robinson-Jaye renders obvious *electronically receiving at the programmed computer system, from the at least one server, an electronically URL-redirected partial profile of the entity.*

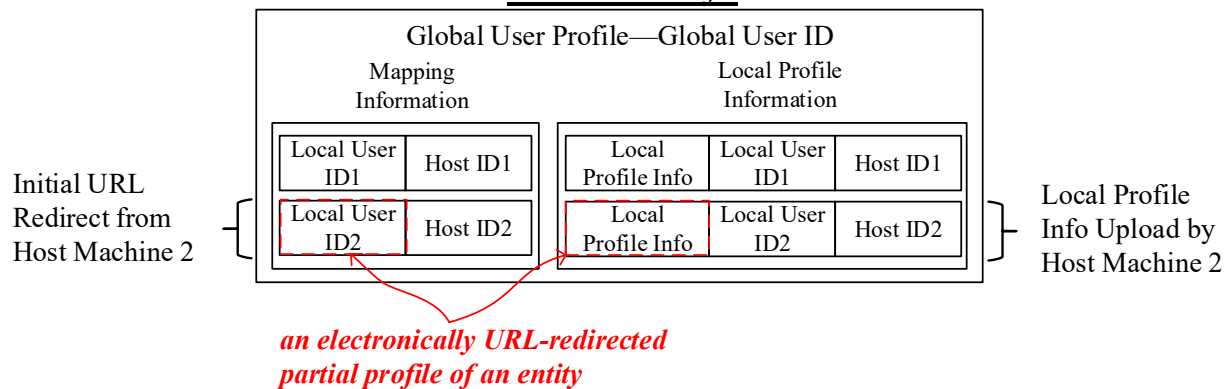
As shown in the diagrams below, when a user references a tracking-enabled page on the host machine, the central system receives information about the user from the host machine, including (1) information in the special URL, including the local user identifier, that redirects the browser on the user machine from the page on the host machine to the central server, and (2) the local profile information uploaded to the central system by the host machine. LIVEINTENT1004, 9:12-16, 9:21-35, 10:8-14; LIVEINTENT1005, 6:40-46, 7:27-31, 10:27-34; *see* LIVEINTENT1003 ¶¶60-68, 105.[1.a.i]; *supra* §§VI.A.3(b)-(c). Specifically, as Jaye teaches, when the user previously accessed the central system and thus the central system previously created the global user identifier and the associated

global user profile, the central system receives the information in the special URL to register the newly received local user identifier in the global user profile as part of the user's initial visit to pages hosted on the host machine. LIVEINTENT1005, 6:16-46, 6:57-58, 7:46-51, 7:58-61, 8:10-14; *see supra* §§VI.A.3(b)-(c). After registering the local user identifier in the global user profile, the central system receives the local profile information collected by and uploaded by the host machine. LIVEINTENT1005, 7:7-11, 7:27-31, 7:46-49, 8:29-39, 10:27-34; *see* LIVEINTENT1004, 9:12-35, 10:8-14; *supra* §§VI.A.3(b)-(c).

Petitioner-Provided Diagram 11: Element [1.a.i] in Robinson-Jaye



Petitioner-Provided Diagram 12: Element [1.a.i] in Robinson-Jaye



As discussed below, *electronically receiving at the programmed computer*

system, from the at least one server, an electronically URL-redIRECTED partial profile of the entity is satisfied in Robinson-Jaye by the central system receiving the local user identifier in the special URL and/or the local profile information uploaded by the host machine.

First, the local user identifier and/or the local profile information form a *partial profile*, e.g., because each of these pieces of information include and/or correspond to an “attribute.” *See supra* §VI.A.4.[1.pre]; *infra* §VI.A.4.[1.a.ii] (claim 1 requiring that the partial profile “contain at least one attribute related to the entity”).

Second, this *partial profile* is “*receiv[ed] at [the] programmed computer system ..., from [the] at least one server,*” e.g., because, as Jaye teaches, the host machine “forces a transfer” to the central system using a special URL with the appended local user identifier and uploads the local profile information to the central system. LIVEINTENT1005, 6:32-46, 6:57-62, 7:27-36, 7:46-53, 8:29-35, 8:40-43, 10:29-34.

Third, this partial profile is an “*electronically URL-redIRECTED*” partial profile. LIVEINTENT1005, 6:32-46, 6:57-7:6, 7:46-53, 8:29-35. Specifically, the forced transfer provides the appended local user identifier to the central system so that the central system registers the local user identifier by storing the mapping of the local user identifier to the global user identifier. LIVEINTENT1005, 6:32-46,

6:57-7:6, 7:46-53, 8:10-35. And as Jaye teaches, the host machine uploads the local profile information after the central system initially registers the local user identifier received as part of the forced transfer. LIVEINTENT1005, 6:57-7:6, 7:46-49, 8:29-35.

Robinson-Jaye satisfies the partial profile being “*electronically URL-redi-rected*” in a manner consistent with the ’904 Patent’s disclosure of examples of URL redirection and communication of partial profiles to the system. In the ’904 Patent specification’s only two examples mentioning redirection of a visitor’s page to the system, the redirection allows the system to read a cookie on the visitor’s computer. *See* LIVEINTENT1001, 3:64:4:18, 12:10-24. As the ’904 Patent explains, “[e]ach cookie is reported (by the computer browser) only to the web site server that installed that cookie” (LIVEINTENT1001, 3:2-3), i.e., the system in the specification’s two redirection examples. In these two examples, the web site also separately “forwards” or “provide[s]” a partial profile to the system. LIVEINTENT1001, 4:4-10, 12:10-20.

The forced transfer in Robinson-Jaye similarly serves as a URL redirection that allows the central system to directly receive from the user machine the cookie containing the global user identifier. LIVEINTENT1005, 7:58-63, 8:10-28, fig.3 (elements 54, 62); *see supra* §§VI.A.3(b)-(c). The host machine appends the information to the special URL to provide the local user identifier to the central system.

LIVEINTENT1005, 6:32-46, 6:57-7:6, 7:46-53, 8:10-28. And just as the web site in the '904 Patent “forwards” or “provide[s]” a partial profile to the system independent of the URL redirection for providing access to the cookie, Robinson-Jaye’s host machine uploads the local profile information independent of the forced transfer that provides access to the global user identifier.

LIVEINTENT1005, 6:57-7:6, 7:46-49, 8:29-35.

[1.a.ii]

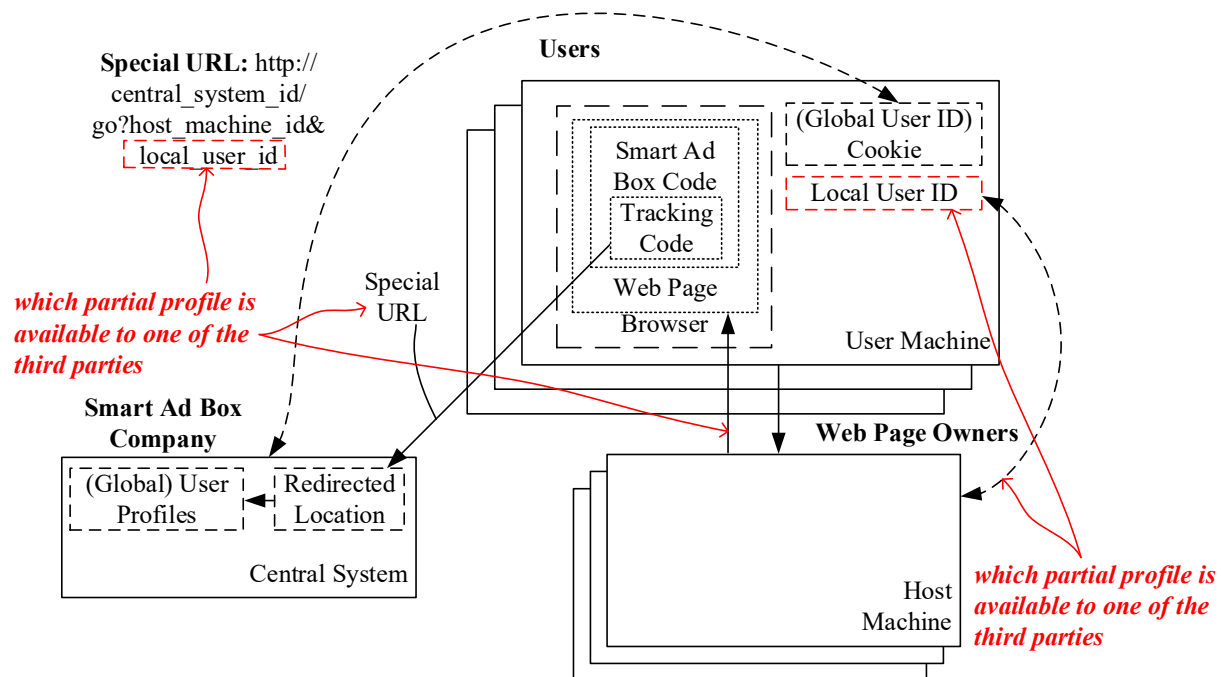
The partial profile in Robinson-Jaye ***contains at least one profile attribute related to the entity***, e.g., because this partial profile includes the appended local user identifier and/or the local profile information, which, as discussed above, include attributes related to the user. *See* LIVEINTENT1003 ¶¶60-68, 105.[1.a.ii]; *supra* §§VI.A.4.[1.pre], [1.a.i].

Moreover, the local user identifier and/or the local profile information in Robinson-Jaye are available to the host machine and hence ***available to one of the third parties*** controlling the host machine. *See* LIVEINTENT1003 ¶¶60-68, 105.[1.a.ii]; *supra* §§VI.A.3(b)-(c).

First, consistent with Jaye’s teachings and as shown in the diagram below, the local user identifier in the special URL in Robinson-Jaye is available to the host machine, e.g., because, as Jaye teaches, (1) the host machine sets and assigns the local user identifier for the user machine and is “provide[d] the assigned local

[user identifier] each time the [user machine] requests data (e.g., an HTML page) from the [host machine]” (LIVEINTENT1005, 5:56-60; *see* LIVEINTENT1005, 5:31-67), and (2) the host machine “insert[s] [the] special URL into the HTML page requested by the [user machine]” to force the transfer of the user machine, and this special URL contains the local user identifier, confirming that this local user identifier is available to the host machine (LIVEINTENT1005, 6:32-46). *See supra* §§VI.A.3(b)-(c).

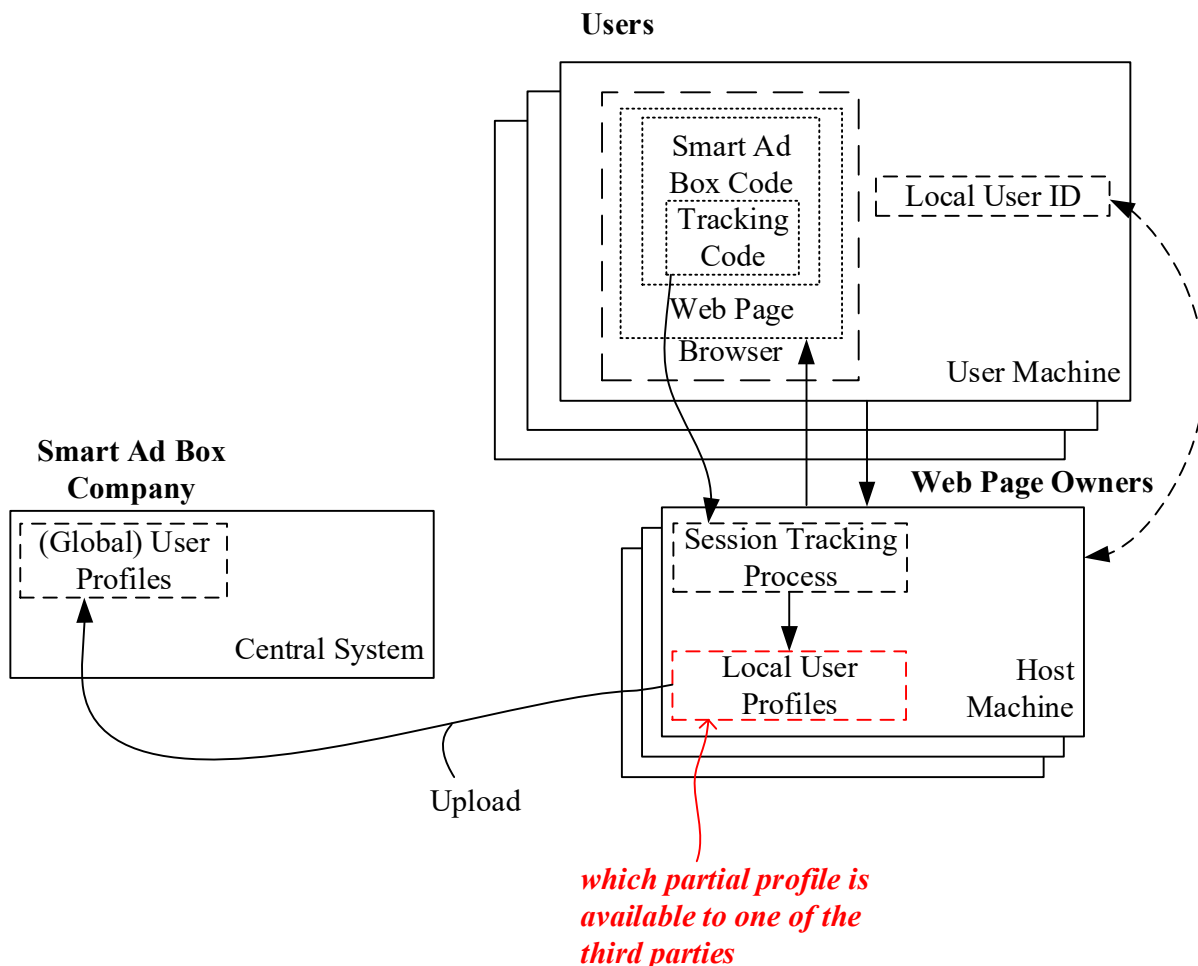
Petitioner-Provided Diagram 13: Element [1.a.ii] in Robinson-Jaye



Second, alternatively/additionally, the local profile information uploaded to

the central system is available to the host machine, e.g., because, as Robinson and Jaye teach and as shown in the diagram below, the host machine compiles the local profile information to generate the local user profile and uploads this local profile information to the central system. LIVEINTENT1005, 3:49-50, 5:5-6, 7:7-36, 8:35-39, 10:27-32; *see* LIVEINTENT1004, 9:17-20 (Robinson further contemplating the host machine using a tracking script to track user activity and updating the central system with the tracked user activity).

Petitioner-Provided Diagram 14: Element [1.a.ii] in Robinson-Jaye



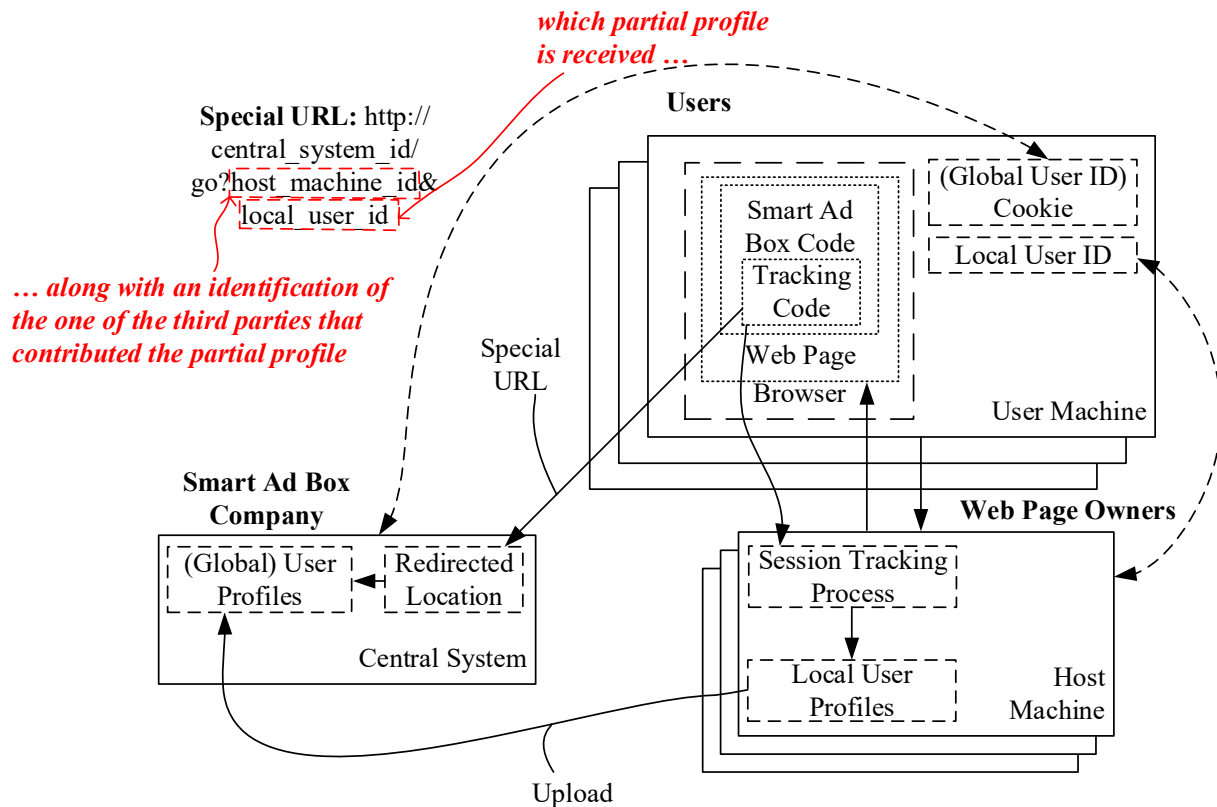
[1.a.iii]

To start, in Robinson-Jaye, the third party controlling the host machine ***contributed the partial profile***, e.g., because the host machine provides the local user identifier via the special URL and uploads the local profile information to the central system. See LIVEINTENT1003 ¶¶60-68, 105.[1.a.iii]; *supra* §§VI.A.3(b)-(c), VI.A.4.[1.a.i].

Furthermore, the partial profile is received along with the host machine identifier (***which partial profile is received along with an identification of the one of the third parties***). See LIVEINTENT1003 ¶¶60-68, 105.[1.a.iii].

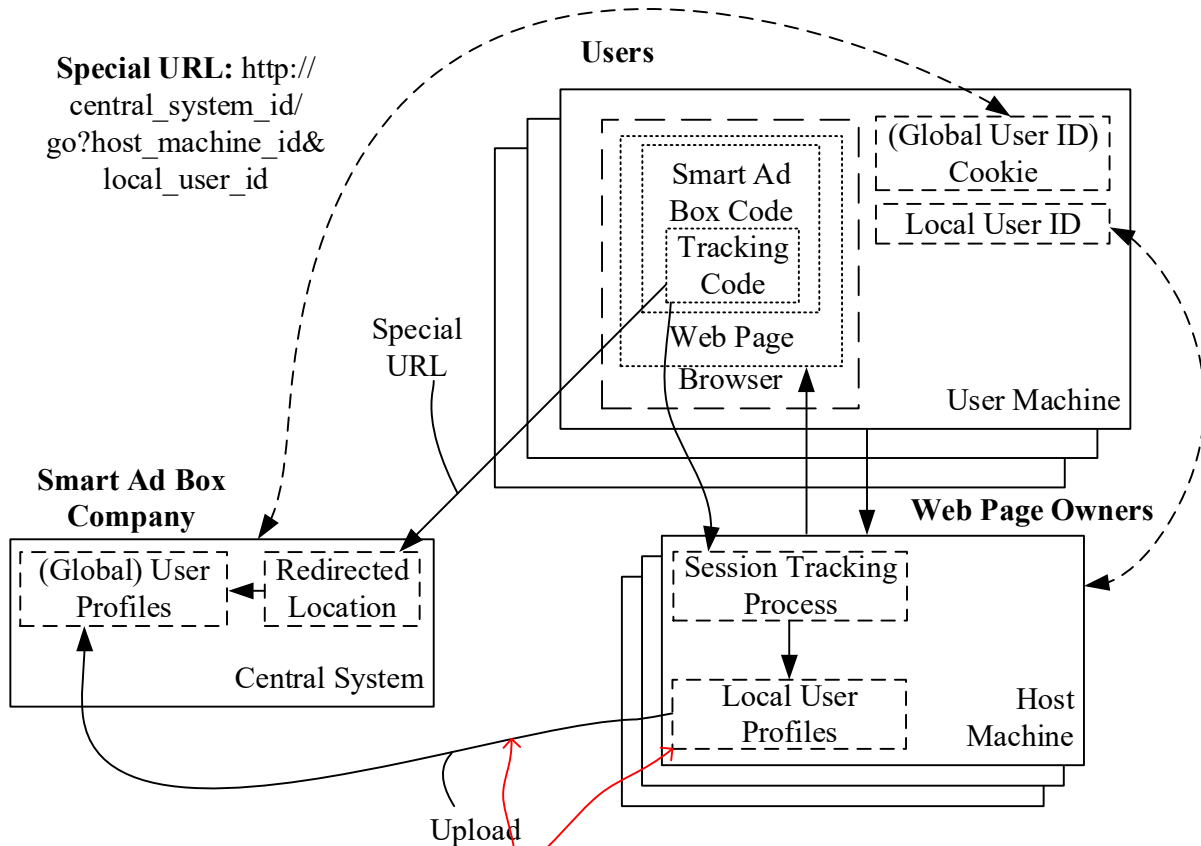
First, as shown in the diagram below, the central system in Robinson-Jaye receives the host machine identifier in the special URL provided by the host machine, and thus the received partial profile (including the local user identifier appended to the special URL and/or the uploaded local profile information) is received along with the host machine identifier. LIVEINTENT1005, 6:40-46, 7:46-57.

**Petitioner-Provided Diagram 15: Element [1.a.iii] in
Robinson-Jaye**

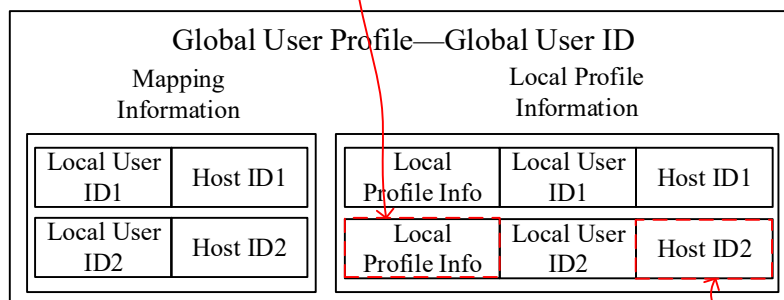


Second, alternatively/additionally, consistent with Robinson’s and Jaye’s teachings, as shown in the diagram below, the host machine uploads to the central system the local profile information compiled by the host machine (e.g., Host Machine 2) “along with the local [user identifier].” LIVEINTENT1005, 7:27-31; *see also* LIVEINTENT1004, 13:58-14:8 (Robinson teaching that the host machine provides the host machine identifier as part of the Smart Ad Box code to enable the third party controlling the host machine to be compensated for display of advertising).

**Petitioner-Provided Diagram 16: Element [1.a.iii] in
Robinson-Jaye**



*which partial profile is
received ...*



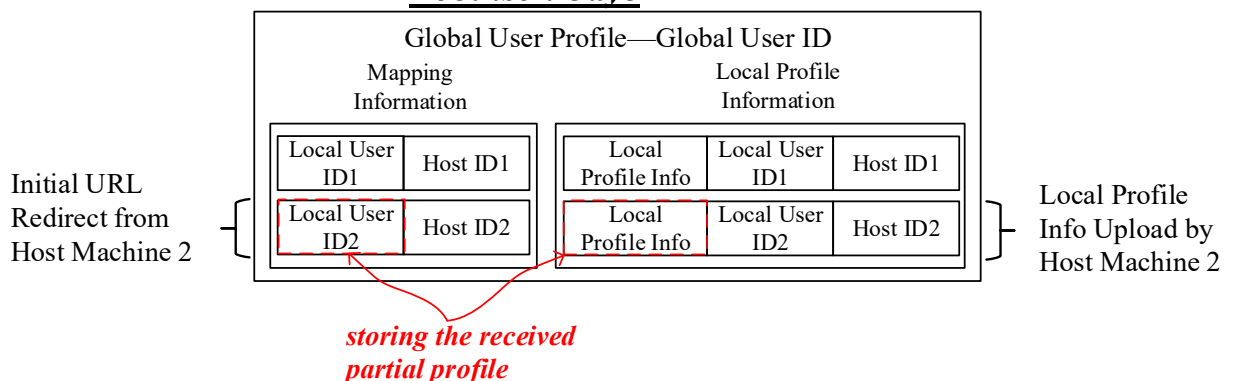
*... along with an identification of
the one of the third parties that
contributed the partial profile*

[1.a.iv]

Robinson-Jaye teaches *automatically with the computer system storing the received partial profile* because the central system automatically stores the appended local user identifier and the uploaded local profile information. See LIVEINTENT1003 ¶¶60-68, 105.[1.a.iv].

First, when a user initially visits a page hosted by the host machine, in response to the forced transfer to the central system using the special URL, the central system stores the local user identifier to correlate the local user identifier to the global user identifier, as shown in the diagram below. LIVEINTENT1005, 6:32-46, 7:46-49, 8:10-28; *see supra* §§VI.A.3(b)-(c). As a POSITA would have understood and/or found obvious, the central system “*automatically*” stores the local user identifier, e.g., because the storage operation involves the central system and occurs in response to the forced transfer and hence without human intervention. LIVEINTENT1005, 6:32-46, 7:46-49, 8:10-28; *see supra* §§VI.A.3(b)-(c).

Petitioner-Provided Diagram 17: Element [1.a.iii] in Robinson-Jaye



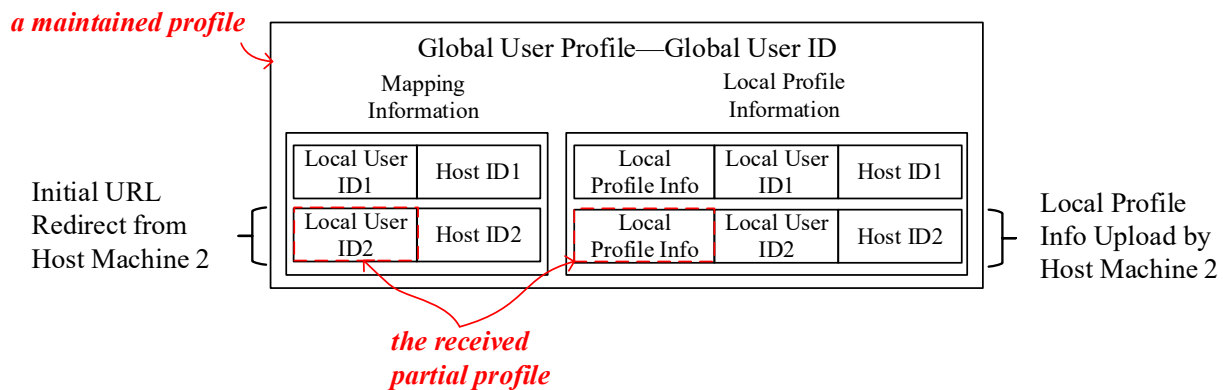
Second, alternatively/additionally, as shown in the diagram above, the local profile information collected by the host machine is “uploaded to the [central system]” to build the global user profile, as Jaye teaches (LIVEINTENT1005, 7:33-36, 9:40-43), and the central database of the central system is “updated with tracking information”—e.g., included in the local profile information in Robinson-Jaye—and “store[s]” the tracked information about the user, as Robinson teaches (LIVEINTENT1004, 9:4-7, 9:21-22). *See* LIVEINTENT1004, 9:4-35, 10:10-14, 15:29-42; LIVEINTENT1005, 7:21-36, 9:33-52, 10:29-36; *supra* §§VI.A.3(b)-(c).. Consistent with Robinson and Jaye’s teachings, as a POSITA would have understood and/or found obvious, the central system “*automatically*” stores the local profile information, e.g., because the storage involves the central system and occurs as a result of the uploading or updating of the central system and hence without human intervention. *See* LIVEINTENT1004, 9:4-35, 10:10-14, 15:29-42; LIVEINTENT1005, 7:21-36, 9:33-52, 10:29-36.

[1.b]

In Robinson-Jaye, as shown in the diagram below, the central system adds the appended local user identifier and/or the uploaded local profile information to the global user profile and does so, as a POSITA would have understood and/or found obvious, “*automatically*,” e.g., because the adding involves the central system and occurs in response to the central system identifying the local user

identifier and/or the global user identifier (as discussed in greater detail below) and hence without human intervention (*electronically adding the received partial profile to a maintained profile*). LIVEINTENT1005, 3:54-55, 6:32-46, 6:57-58, 7:25-45, 7:46-49, 8:10-27, 10:29-41, fig.3 (reference numeral 62), fig.4 (reference numeral 82); *see* LIVEINTENT1004, 9:36-37, 10:10-14, 10:24-26; LIVEINTENT1003 ¶¶60-68, 105.[1.b]; *supra* §§VI.A.3(b)-(c).

Petitioner-Provided Diagram 18: Element [1.b] in Robinson-Jaye



The global user profile is “*believed to be related to the same entity*,” e.g., as the received partial profile. Specifically, the global user profile (associated with the global user identifier) and the received partial profile (including the appended local user identifier and/or the uploaded local profile information) are related to the same user machine and hence are believed to be related to the same entity. *See* LIVEINTENT1003 ¶¶64-67, 69-71, 105.[1.b]; *supra* §§VI.A.3(b)-(c).

First, the local user identifier in the received partial profile and the global

user profile are believed to be related to the same entity. As Jaye teaches, the host machine initially sets and stores the unique local user identifier on the user machine that is appended to the special URL (and thus the appended local user identifier is related to the user machine), and the special URL redirects the same user machine to which the host machine assigned the local user identifier to the central system. LIVEINTENT1005, 5:20-67, 6:22-58, 6:67-7:2, 7:46-57, figs.2-3. By virtue of this URL redirection, the central system directly receives from this same user machine the cookie containing the global user identifier and then creates and stores, in the global user profile associated with the received global user identifier, the mapping between the received local user identifier and the global user identifier. LIVEINTENT1005, 7:58-63, 8:10-28, fig.3; *see supra* §§VI.A.3(b)-(c). Indeed, the unique global user identifier serves as “persistent state information” initially assigned to and “created for the [user machine]” and is mapped to multiple local user identifiers set by different host machines for the user machine. LIVEINTENT1005, 5:20-67, 7:58-8:31, fig.3; *see* LIVEINTENT1004, 8:40-50, 9:36-10:29. The local user identifier received in the special URL and the global user identifier are therefore related to the same user machine and hence believed to be related to the same user.

Second, alternatively/additionally, the uploaded local profile information and the global user profile are believed to be related to the same entity. Consistent

with Jaye's teachings, after the initial URL redirection for registering the local user identifier with the central system, when the user machine accesses pages hosted by the host machine, the user machine sends to the host machine the cookie that includes the local user identifier uniquely associated with the user machine and stored on the user machine. LIVEINTENT1005, 5:39-46, 5:60-63, 6:16-22, 7:3-11, fig.2; *see* LIVEINTENT1005, 6:1-11; *see also* LIVEINTENT1004, 2:49-57, 8:40-50, 9:36-10:29. The host machine, as Jaye teaches, collects the local profile information and forwards the local profile information and the local user identifier to the central system. LIVEINTENT1005, 7:7-45, 10:27-32, fig.2, 4; *see* LIVEINTENT1005, 5:5-14, 8:40-52, 9:5-10:41. The central system then uses this forwarded local user identifier and the previously generated mapping between that local user identifier and the global user identifier to identify the global user identifier associated with the local user identifier and hence identify the global user profile. LIVEINTENT1005, 5:5-19, 6:6-11, 7:21-26, 8:40-52. And, as discussed above, the global user identifier and the local user identifier in the mapping are related to the same user machine. Therefore, the local profile information (associated with the forwarded local user identifier) and the identified global user profile (identified based on the forwarded local user identifier and the stored mapping between that local user identifier and the global user identifier) are related to the same user machine and hence believed to be related to the same user.

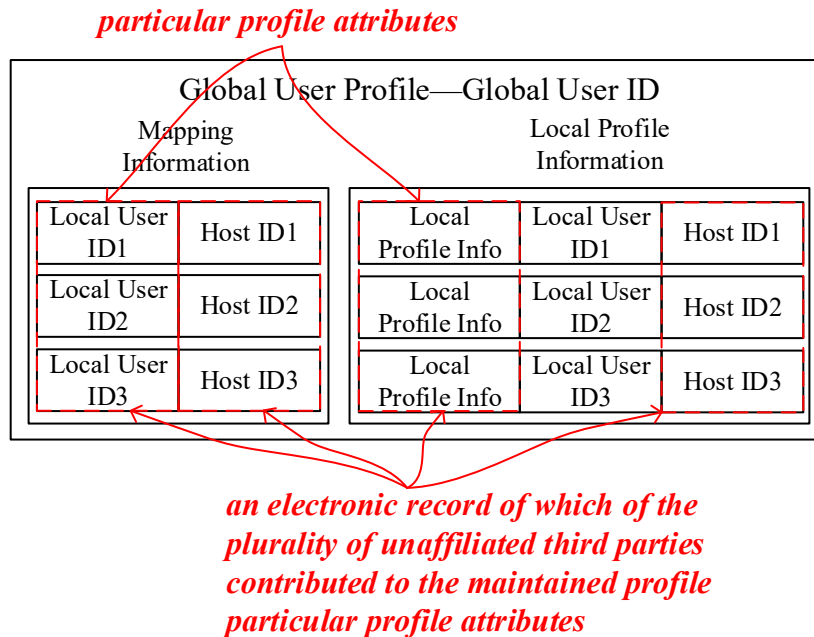
[1.c]

As discussed above, consistent with the '904 Patent's specification, local user identifiers and/or local profile information in Robinson-Jaye include "***particular profile attributes***." See LIVEINTENT1003 ¶¶60-68, 105.[1.c]; *supra* §VI.A.4.[1.pre].

Moreover, by associating host machine identifiers with corresponding local user identifiers and associating the host machine identifiers with corresponding uploaded local profile information, Robinson-Jaye satisfies "***automatically with the computer system generat[es] and stor[es] an electronic record of which of the plurality of unaffiliated third parties contributed to the maintained profile particular profile attributes***" (e.g., local user identifiers and/or local profile information). See LIVEINTENT1003 ¶¶60-68, 105.[1.c]; *supra* §§VI.A.3(b)-(c).

First, as shown in the diagram below, as a result of the forced transfer process that occurs as the user interacts with various host machines, the central system in Robinson-Jaye associates a host machine identifier of each host machine with a corresponding local user identifier, and does so, as a POSITA would have understood and/or found obvious, "***automatically***," e.g., because the associating involves the central system and occurs as a result of the forced transfer and hence without human intervention. LIVEINTENT1005, 6:40-46, 7:27-45, 8:10-28; *see supra* §VI.A.4.[1.a.iii].

Petitioner-Provided Diagram 19: Element [1.c] in Robinson-Jaye



Second, alternatively/additionally, also illustrated in the diagram above, each host machine uploads to the central system its host machine identifier with local profile information collected as the user machine accesses pages hosted on the host machine, as Jaye teaches, and the uploading, as a POSITA would have understood and/or have found obvious, occurs “*automatically with the computer system*,” e.g., because storing of the host machine identifier and the local profile information involves the central system and occurs as a result of the host machine’s upload of this information and hence without user intervention. LIVEINTENT1005, 7:27-34; *see supra* §§VI.A.3(b)-(c).

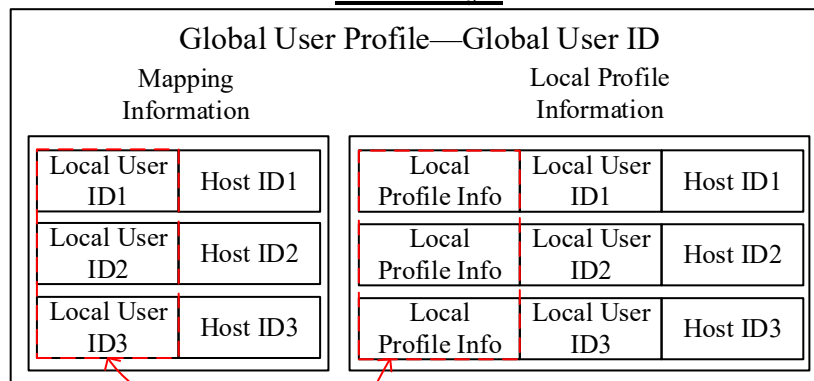
[1.d]

In Robinson-Jaye, local profile information and/or local user identifiers

collected from the various host machines in the global user profile (*the maintained profile*) correspond to “*data used in targeting third-party advertisements to the user computer over the global computer network.*” LIVEINTENT1003 ¶¶72-84, 105.[1.d].

First, as shown in the diagram below, the global user profile stores local profile information collected from the various host machines used to determine the advertisement to present to the user in the Smart Ad Box. *See supra* §§VI.A.3(b)-(c). Consistent with Robinson’s and Jaye’s teachings, the advertisements are advertisements by third parties who are independent from the central system and the host machines (*third-party advertisements*). LIVEINTENT1004, 1:59-63, 5:10-13, 9:2-7, 13:61-63; LIVEINTENT1005, 14:22-25.

Petitioner-Provided Diagram 20: Element [1.d] in Robinson-Jaye



data used in targeting third-party advertisements to the user computer over the global computer network.

Second, alternatively/additionally, as depicted in the diagram above, the global user profile stores the user's local user identifiers for associating the collected local profile information with the global user identifier and thus are also used in the process for targeting advertisements to the user of the global user profile when the user visits tracking-enabled pages. *See supra* §§VI.A.3(b)-(c).

Furthermore, the global user profile includes the added partial profile—specifically the received local user identifier and the received local profile information described in Element [1.b]—and hence corresponds to “*the maintained profile, including the added partial profile.*” *See supra* §VI.A.4.[1.b]. To the extent that Patent Owner argues that the “*added partial profile*” must “*comprise[]*” the “*data used in targeting third-party advertisements to the user computer over the global computer network,*” the added partial profile in Robinson-Jaye includes the local user identifier and/or the local profile information and therefore would satisfy this limitation for the reasons discussed above. *See supra* §VI.A.4.[1.b].

5. Claim 3

[3]

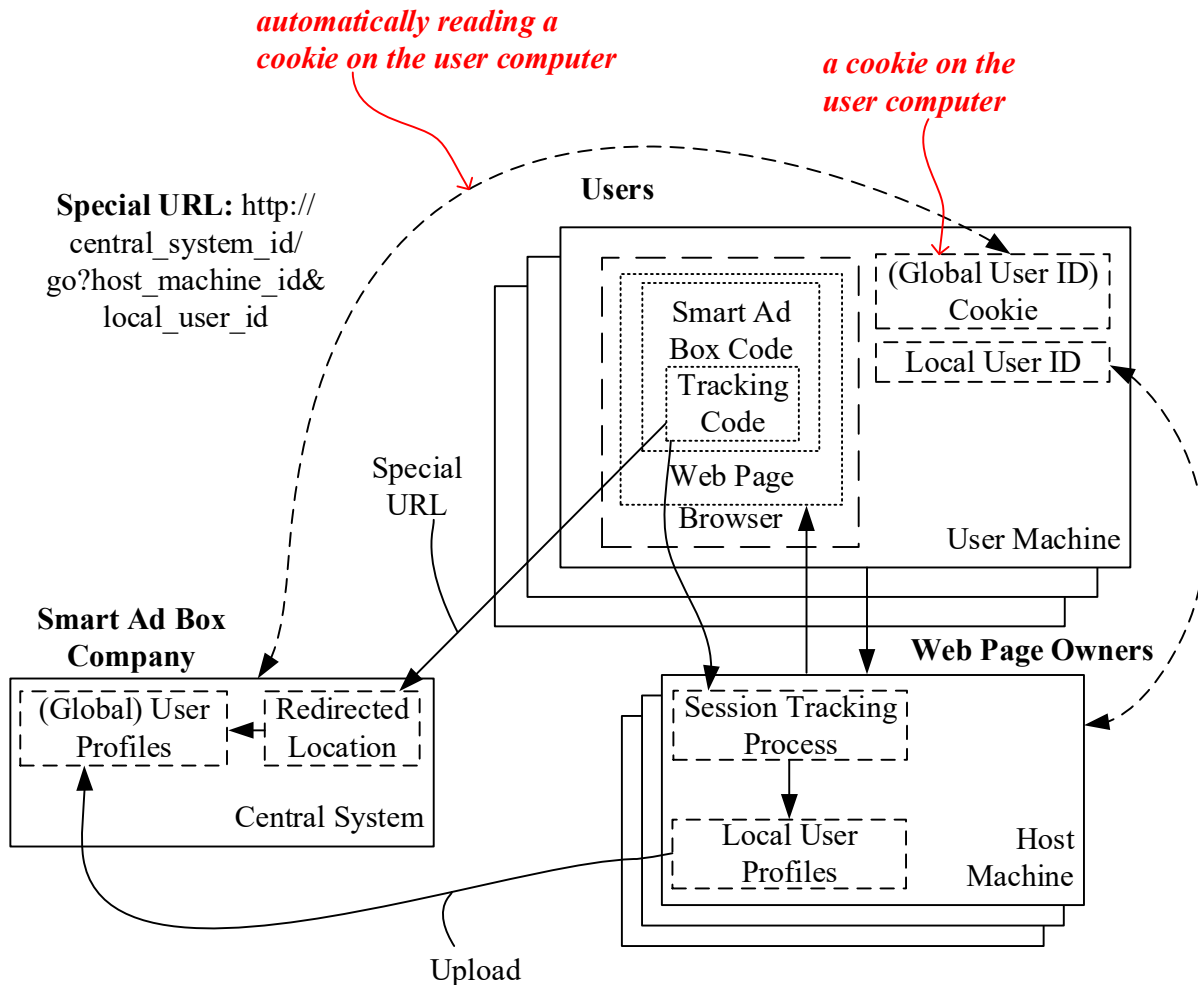
In Robinson-Jaye, the central system adds the received partial profile to the global user profile on account of the received partial profile and the maintained profile being related to the same user machine. *See* LIVEINTENT1003 ¶¶64-67, 69-71, 105.[3]; *supra* §VI.A.4.[1.b].

6. Claim 4

[4]

In Robinson-Jaye, as shown in the diagram below, a cookie stored on the user machine is or includes the global user identifier (*a cookie on the user computer*). See *supra* §§VI.A.3(b)-(c). By virtue of the URL redirection facilitated by the special URL, the central system directly receives from the user machine the cookie containing the global user identifier and, as a POSITA would have understood and/or found obvious, receives this cookie without human intervention (*automatically reading [the] cookie*). See LIVEINTENT1003 ¶¶64-67, 69-71, 105.[4]; *supra* §VI.A.4.[1.b].

Petitioner-Provided Diagram 21: Element [4] in Robin-son-Jaye



As a result of the forced transfer and receipt of this cookie, the central system determines the received partial profile (including the local user identifier received in the special URL and/or the uploaded local profile information) and the global user profile are related to the same user machine (*the computer system determines that the received partial profile and the maintained profile are related to the same user computer*). See LIVEINTENT1003 ¶¶64-67, 69-71, 105.[4];

supra §§VI.A.3(b)-(c), VI.A.4.[1.b].

First, with respect to the local user identifier received in the special URL, the central system determines that this local user identifier and the global user profile are related to the same user machine by accessing the global user identifier in the cookie to identify the global user profile linked to global user identifier and hence linked to the user machine and then to store the mapping between the local user identifier and the global user identifier. *See supra* §VI.A.4.[1.b].

Second, with respect to the uploaded local profile information, the central system determines that this local profile information and the global user profile are related to the same user machine by using the mapping—which was previously created by receiving from the user machine the cookie containing the global user identifier as a result of the forced transfer—to identify the global user profile to which the local profile information is uploaded. *See supra* §VI.A.4.[1.b].

7. Claim 5

[5]

Robinson-Jaye satisfies this limitation in the manner summarized in the table below.

Feature in Robinson-Jaye	Element [5]
local profile information	This information is stored in association with the host machine identifier and is actually “used in targeting the advertisements” as set forth in Sections VI.A.3(b) and VI.A.4.[1.d] above.
local user identifiers	This information is stored in association with the host machine identifier and is actually “used in targeting the advertisements” as set forth in Sections VI.A.3(b) and VI.A.4.[1.d] above.
page identifier	This information is stored in association with the host machine identifier as set forth in Sections VI.A.3(b) and VI.A.4.[1.d] above. This information is actually “used in targeting the advertisements” because the page identifier is used to: (1) prior to the host machine communicating the page identifier to the central system, determine the subject matter of the page that includes a Smart Ad Box, with the determined subject matter then being used to select a targeted advertisement for presentation to a user within that same page’s Smart Ad Box; (2) prior to the host machine communicating the page identifier to the central system, identify whether an advertiser permits an advertisement to be placed within the Smart Ad Box of the page before a targeted advertisement is inserted into that same page’s Smart Ad Box for presentation to the user, and (3) subsequent to storage of the page identifier in the global user profile, identify additional targeted advertisements to present to that user or to other similar users as set forth in Sections VI.A.3(b) and VI.A.4.[1.d] above.

Feature in Robinson-Jaye	Element [5]
advertisement identifier	This information is stored in association with the host machine identifier as set forth in Sections VI.A.3(b) and VI.A.4.[1.d] above. This information is actually “used in targeting the advertisements” because the advertisement identifier is used to: (1) prior to the host machine communicating the advertisement identifier to the central system, select and present a targeted advertisement (that corresponds to the advertisement identifier) to a user in a Smart Ad Box presented to that user; and/or (2) subsequent to storage of the page identifier in the global user profile, identify additional targeted advertisements to present to that user or to other similar users as set forth in Sections VI.A.3(b) and VI.A.4.[1.d] above.
rejection indicator	This information is stored in association with the host machine identifier as set forth in Sections VI.A.3(b) and VI.A.4.[1.d] above. This information is actually “used in targeting the advertisements” because the advertisement identifier is: (1) prior to the host machine communicating the rejection indicator to the central system, produced as part of an advertisement targeting process in response to and after a user rejects a targeted advertisement presented to the user, thereby triggering presentation of a new targeted advertisement to that user; and/or (2) subsequent to storage of the page identifier in the global user profile, used to identify additional targeted advertisements to present to that user or to other similar users as set forth in Sections VI.A.3(b) and VI.A.4.[1.d] above.

As an initial matter, Robinson-Jaye satisfies “*electronically maintaining an electronic record of which unaffiliated third party contributed, to the maintained profile, profile attributes*” because the central system stores the host machine identifiers in association with profile attributes provided by corresponding host machines, including (1) profile attributes in the local profile information, (2) the appended local user identifiers, and/or (3) the page identifiers, advertisement identifiers, and/or rejection indicators of the local profile information. *See* LIVEINTENT1003 ¶¶60-71, 105.[5]; *supra* §§VI.A.3(b)-(c); VI.A.4.[1.c]. The central system, is involved with the storage and, as a POSITA would have understood and/or found obvious, performs this storage without human intervention (*automatically with the computer system*). *See supra* §§VI.A.3(b)-(c), VI.A.4.[1.c].

Furthermore, the record in Robinson-Jaye is a record of which third party contributed profile attributes that were actually “*used in targeting the advertisements*.” *See* LIVEINTENT1003 ¶¶72-82, 105.[5].

In a first alternative, consistent with both Robinson’s and Jaye’s teachings, the pieces of information in the local profile information in the global user profile were actually used for targeting advertisements. *See supra* §§VI.A.3(b), VI.A.4.[1.d].

In a second alternative, the local user identifiers stored in the global user profile for mapping the local user identifiers to the global user identifier are used

by the central system to identify the global user profile to which the local profile information is added, as Jaye teaches. *See supra* §VI.A.3(b). And as Robinson and Jaye teach, the local profile information in the global user profile is used for targeting advertisements. *See supra* §VI.A.3(b). The central system thus uses the local user identifiers for collecting the local profile information that is used for targeting the advertisements and accordingly uses the local user identifiers for targeting the advertisements. *See supra* §VI.A.3(b).

In a third alternative, alternatively/additionally, the page identifiers, the advertisement identifiers, and/or the rejection indicators in Robinson-Jaye amount to “*profile attributes used in targeting the advertisements*” because (1) subsequent to storage of these attributes in the global user profile, these attributes are used for targeting advertisements to the user or to other similar users as discussed above with respect to the local profile information (*see supra* §§ VI.A.3(b) and VI.A.4.[1.d]); and/or (2) as discussed below, these pieces of information were all used for selecting this advertisement.

As to page identifiers, a POSITA would have implemented Robinson-Jaye so that the central system uses the page identifier to: (1) determine and use the subject matter of the page for selecting an advertisement, and/or (2) identify whether an advertiser permits an advertisement to be presented on the page visited by the user. *See* LIVEINTENT1003 ¶¶48, 105.[5]. Robinson teaches tracking the page

identifier of the page visited by the user, and Jaye teaches using page identifiers to track information about the content of pages. LIVEINTENT1004, 9:21-23; *see* LIVEINTENT1005, 9:42-10:41, fig.5; LIVEINTENT1003 ¶¶48, 105.[5]. A POSITA would have been motivated to use the page identifier of the page (which includes the Smart Ad Box that presents the advertisement to the user) in order to identify the page, determine the subject matter of that page, and then select an advertisement for the Smart Ad Box that would have relate to the subject matter of the page, thereby improving the central system's ability to select an advertisement that the user is more likely to interact with. LIVEINTENT1004, 4:64-67; LIVEINTENT1003 ¶¶48, 105.[5].

Alternatively/additionally, as Robinson teaches, an advertiser selects where one of its advertisements is displayed by indicating to the central system which sites and pages the advertisement should be displayed. LIVEINTENT1004, 3:29-34, 5:11-21, 5:30-6:15; *see* LIVEINTENT1003 ¶¶48, 105.[5]. A POSITA would have understood and/or found obvious for the advertiser to use page identifiers to make this selection. LIVEINTENT1004, 3:29-34, 5:11-21, 5:30-6:15; *see* LIVEINTENT1004, 5:37-40, 6:7-12 (Robinson teaching that advertisement identifiers are used to state display preferences), 9:8-35 (Robinson teaching that the page identifier is tracked as the user visits the page); LIVEINTENT1003 ¶¶48, 105.[5]. To identify whether the advertisement of the advertiser should be presented on a

page currently visited by the user, as a POSITA would have understood and/or found obvious, the central system would reference a page identifier of the currently visited page—which would correspond to the page identifier in the uploaded local profile information—and determine whether the page identifier matches any of the page identifiers previously specified by the advertiser. LIVEINTENT1004, 3:29-34, 5:11-21, 5:30-6:15; LIVEINTENT1003 ¶¶48, 105.[5]. The page identifier in the uploaded local profile information would therefore have been used in selecting and presenting the advertisement that was displayed to the user in the Smart Ad Box; LIVEINTENT1003 ¶¶48, 105.[5].

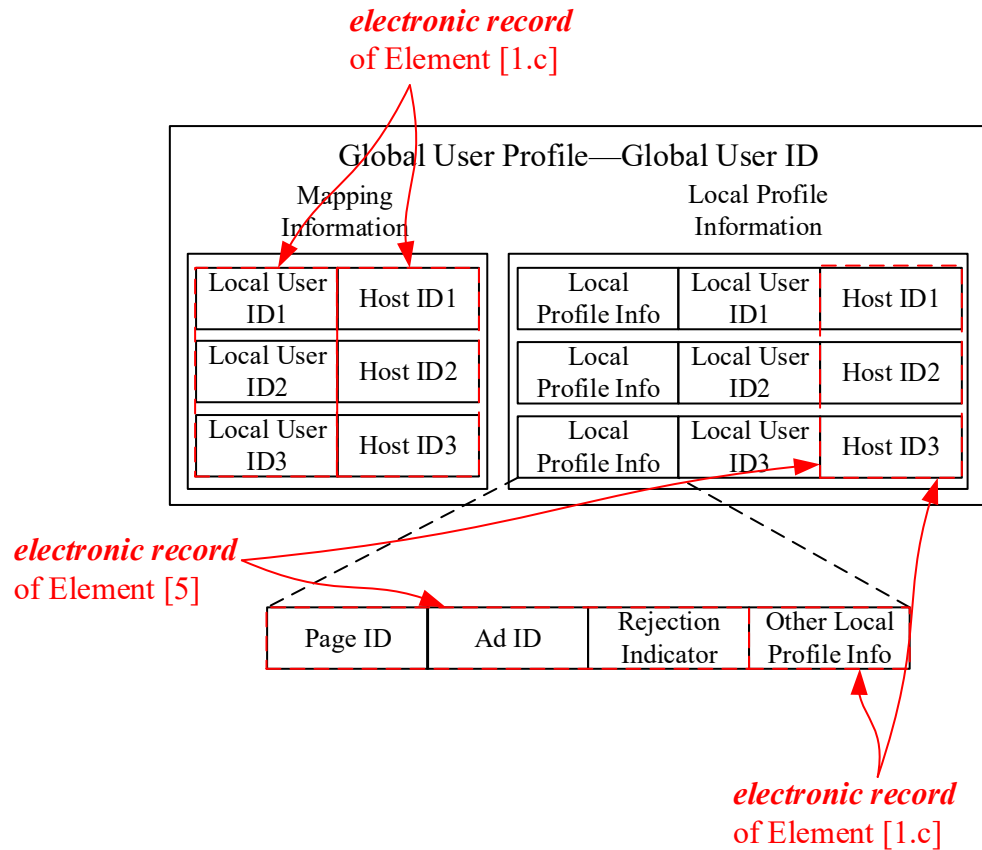
As to advertisement identifiers, a POSITA would have implemented Robinson-Jaye such that the advertisement identifier is used for selecting and presenting an advertisement to the user. *See* LIVEINTENT1003 ¶¶49, 105.[5]. Robinson teaches that the advertising identifier is used for selecting an advertisement to present to the user and teaches tracking the identifier of the advertisement that was displayed to the user in the Smart Ad Box. LIVEINTENT1004, 5:37-40, 5:59-63, 6:4-12; *see* LIVEINTENT1004, 5:37-6:15 (Robinson teaching the advertisement identifier is used for selecting an advertisement to present on a Smart Ad Box), 9:8-35 (Robinson teaching that the identifier of the advertisement displayed to the user in the Smart Ad Box is tracked as the user visits a page); LIVEINTENT1003 ¶¶49, 105.[5].

As to rejection indicators in Robinson-Jaye, as Robinson teaches, when the user rejects an advertisement, “[t]he rejected ad would automatically be replaced with another ad targeted to that user.” LIVEINTENT1004, 5:4-9. Moreover, the central system uses “which ads [the user] ... rejected” as a basis for selecting an advertisement to present to that user. LIVEINTENT1004, 15:37-40; *see* LIVEINTENT1004, 15:15-16:67.

To the extent that Patent Owner argues that claim 5 requires that the electronic record is distinct from the electronic record of Element [1.c], at least the third alternative of Robinson-Jaye—where the page identifiers, the advertisement identifiers, and/or the rejection indicators in Robinson-Jaye amount to “*profile attributes used in targeting the advertisements*”—satisfies Element [5]. As shown in the diagram below, the page identifier of the page visited by the user, the identifier of the advertisement presented to the user in the Smart Ad Box, and an indicator of whether the user rejected the advertisement are separate from the appended local user identifiers and/or the other local profile information that would form the electronic record of Element [1.c]. *See supra* §§VI.A.3(b)-(c), VI.A.4.[1.c]. It would have been obvious to implement Robinson-Jaye such that the stored local profile information is organized using data structures where different attributes in the stored local profile information are stored in related but distinct records because the configuration of such data structures is a mere design choice that depends on

storage efficiency and access speed considerations. *See* LIVEINTENT1003 ¶¶43, 105.[5]; LIVEINTENT1005, 8:16-28; LIVEINTENT1007, 7:34-54, 9:22-26. Indeed, the '904 Patent itself ascribes no inventive aspect to storing information in one versus multiple electronic records, further illustrating that such implementation details are routine and conventional. *See* LIVEINTENT1001, 7:60-63 (the '904 Patent merely describing that the databank “relates to an accessible searchable aggregation of records or like data structure units wherein ‘partial’ profiles are stored”). The other local profile information would include, for example, the local user identifiers, the subject matter, nature, interest categories of the pages, the duration and frequency of the user’s visits, user-supplied ratings on pages and side, whether the user clicked on an advertisement, the information about the user’s purchase, and the information about the characteristics of the user. *See supra* §§VI.A.3(b) (describing the pieces of information in the local profile information), VI.A.4.[1.c].

Petitioner-Provided Diagram 22: Element [5] in Robinson-Jaye



8. Claim 6

[6]

A POSITA would have implemented Robinson-Jaye such that the central system determines whether the local profile information contains new interest categories of a site or page visited by the user that were not previously contained in the user's global user profile as part of its process for determining a user's interest profile. LIVEINTENT1003 ¶¶44, 105.[6]. Specifically, in Robinson-Jaye, consistent with Jaye's teachings, the uploaded local profile information includes information

about the site or page visited by the user, including the nature, content, and interest categories of the visited site or page. *See* LIVEINTENT1003 ¶¶44, 105.[6]; *supra* §VI.A.3(b). To identify user interests, the central system “*automatically ... determin[es] whether the received partial profile contains any profile attributes about the entity that were not previously contained in a maintained profile,*” e.g., because, as Jaye teaches, the central system processes this information to determine a user’s interest profile in the global user profile, determines “if there has been a previously determined interest score, i, for the selected interest category,” computes an initial interest score for a category “[i]f no such historical score exists for the interest category of the user,” and, as a POSITA would have understood and/or found obvious, performs these operations without human intervention.

LIVEINTENT1005, 10:42-11:51, 12:17-43, 13:32-36, fig.6; *see*

LIVEINTENT1003 ¶¶44, 105.[6].

9. Claim 7

[7]

The central system in Robinson-Jaye would, in accordance with Jaye’s teachings, “take into consideration the age of the collected behavior information, so that older behavior information has less impact on an interest score than more recent behavior information.” LIVEINTENT1005, 8:55-59; *see* LIVEINTENT1005, 2:58-62; LIVEINTENT1003 ¶¶45, 105.[7]. The central

system's process for determining an impact of the interest category of the page visited by the user on the calculated interest score for the user involves scaling a value derived from a content interest score of the interest category of the visited page (variable c in Equation 5 of Table 2) by an exponential function ($e^{-\left(\frac{\ln(2)}{\gamma}(t_c-t)\right)}$ in Equation 5 of Table 2) that accounts for an age of the information collected about the user's visit to the page. LIVEINTENT1005, 12:23-42; *see* LIVEINTENT1005, 9:45-10:6, 11:45-12:16, tbls.1-2; LIVEINTENT1003 ¶¶45, 105.[7]. A POSITA would have implemented Robinson-Jaye to indicate, as Jaye teaches, an age (*a credibility rating*) associated with the behavior information for the user in the uploaded local profile information (*associated with at least one of the profile attributes of the maintained profile*) to improve the central system's ability to accurately determine the user's interests and to serve effective targeted advertisements. LIVEINTENT1005, 2:58-62, 8:55-59, 12:16-23, 12:59-65; *see* LIVEINTENT1003 ¶¶45, 105.[7]; *supra* §VI.A.3(a)-(b). A POSITA would have understood and/or found obvious that the age associated with the behavior information corresponds to a credibility of the behavior information, with older information being less credible and hence having less of an impact on computed interests for users. *See* LIVEINTENT1005, 2:58-62, 8:55-59, 12:16-23, 12:59-65; LIVEINTENT1003

¶¶45, 105.[7].⁵

10. Claim 9

[9]

As Robinson describes, after the user (referred to as the “first user” for the analysis of this claim element) visits the page, the central system in Robinson-Jaye uses information in the global user profile about the first user to select an advertisement for a second user. LIVEINTENT1004, 15:16-42; *see* LIVEINTENT1004, 2:31-3:27, 3:61-4:6, 4:9-37, 8:62-10:22, 15:14-18:59; LIVEINTENT1003 ¶¶82-84, 105.[9]. The central system—considering information in global user profiles of a set of other users (including the first user) who are determined to be similar to the second user (LIVEINTENT1004, 15:63-67, 16:53-55, 17:1-3, 17:32-33, 18:44-45)—computes a likelihood that the second user would be interested in a particular advertisement (LIVEINTENT1004, 15:15-19, 16:3-38, 16:53-67, 17:22-28, 18:18-21, 18:55-59). *See* LIVEINTENT1004, 2:63-67, 16:1-18:59.

In more detail, first, to initially identify the set of other users who are similar

⁵ Although dependent claim 7 does not specify that the claimed “method” *comprises* the claimed “maintaining,” Robinson-Jaye satisfies dependent claim 7 even if the claim is construed to require that the claimed “method” comprises the “maintaining.”

to the second user, the system determines whether the second user and the other users have visited similar or the same tracking-enabled sites—which would correspond to the sources of the information used for, as described next, determining the likelihood that the second user would be interested in the advertisement (*based on the source thereof*). LIVEINTENT1004, 15:43-50; *see* LIVEINTENT1004, 2:58-2:62, 15:20-15:62. Second, the central system computes the likelihood that the second user would be interested in the particular advertisement based on the tracked information about the other users identified to be similar to the second user, e.g., demographic information, clicks of the advertisement, impressions of the advertisement, and impressions of the advertisement before a click of the advertisement (*selecting profile attributes from the maintained profile*), and this computation, as a POSITA would have understood and/or found obvious, occurs “*automatically with the computer system*,” e.g., because it involves the central system and occurs without human intervention. LIVEINTENT1004, 15:15-19, 16:3-38, 16:53-67, 17:22-28, 18:18-21, 18:55-59; *see* LIVEINTENT1004, 2:63-67, 16:1-18:59.

In an example of an implementation of Robinson-Jaye, assume Bob is the first user, Joe is the second user, and the central system is determining whether a particular car-related advertisement “is likely to be of interest to” Joe.

LIVEINTENT1004, 15:15-19. *See* LIVEINTENT1004, 1:27-44. Consistent with the discussion of Robinson-Jaye above, first, the central system determines a group

of users including Bob “are similar to Joe in their interests,” e.g., because Joe, Bob, and the other users “are remarkably similarly in the sites they’ve chosen to visit” and that would provide certain attributes in the user profiles (*based on the source thereof*). LIVEINTENT1004, 15:20-21, 15:46-50. Second, the central system determines whether the car-related advertisement would be of interest to Joe based on whether selected tracked information (e.g., demographic information, prior clicks or impressions of the advertisement, etc.) in Bob and the other users’ profiles (*selecting profile attributes from the maintained profile*) provided by Bob and the other users in their visits to the sites would indicate that Joe would similarly be interested in the car-related advertisement. LIVEINTENT1004, 15:15-19, 15:45-50, 16:3-38, 16:53-67, 17:22-28, 18:18-21, 18:55-59; *see* LIVEINTENT1004, 2:63-67, 16:1-18:59.

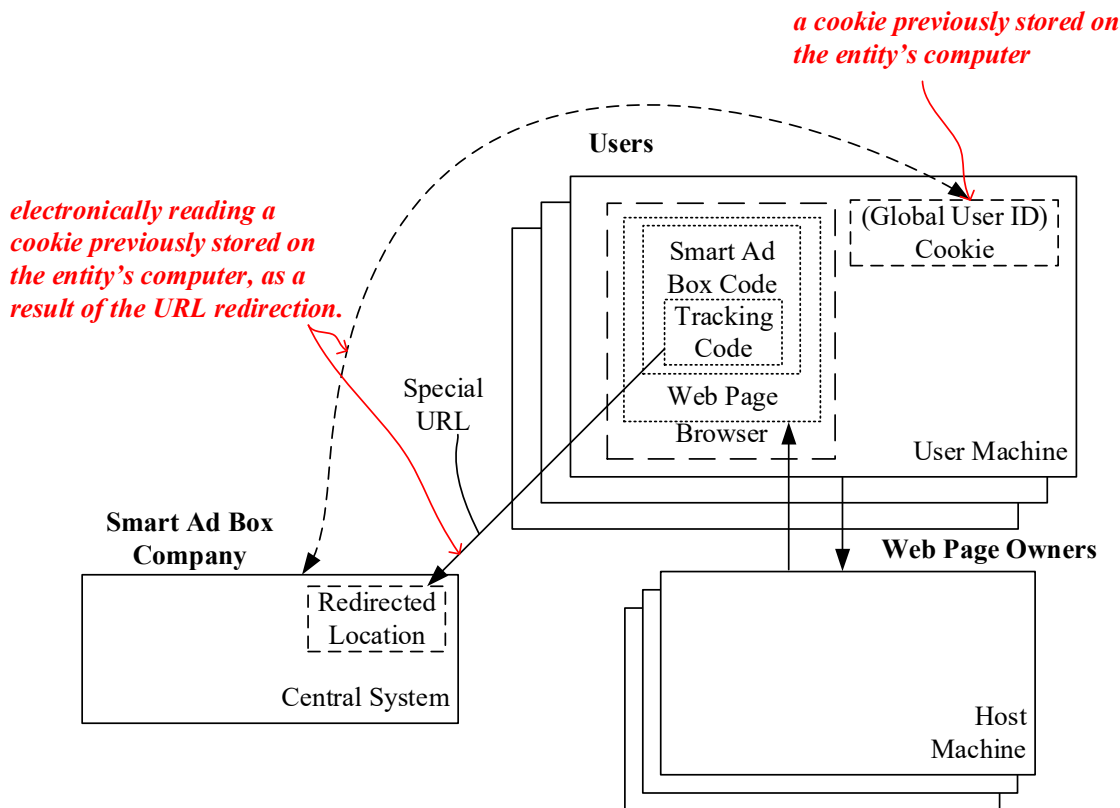
11. Claim 10

[10]

Consistent with Jaye’s teachings, as part of the “steps performed by the [central system] in response to a forced transfer by [the host machine]” (*as a result of the URL redirection*), the central system in Robinson-Jaye determines if the user machine has ever accessed the central system by using a cookie—including the global user identifier—that was previously set by the central system and provided to the user machine (*electronically reading a cookie previously stored on the*

entity's computer), and this determination, as a POSITA would have understood and/or found obvious, occurs “*automatically with the computer system*,” e.g., because it involves the central system and occurs without human intervention. See LIVEINTENT1003 ¶¶64-67, 69-71, 105.[10]; *supra* §§VI.A.3(b)-(c), VI.A.4.[1.b], VI.A.5.[3], VI.A.6.[4].

Petitioner-Provided Diagram 23: Element [10.0] in Robinson-Jaye



12. Claim 11

[11.pre]

To the extent the preamble is limiting, as discussed above, Robinson-Jaye

includes *a method of collecting profiles of Internet-using entities*. See *supra* §VI.A.4.[1.pre]. Moreover, in Robinson-Jaye, the central system performs this method, as the central system receives local user identifiers appended to special URLs by host machines, receives local profile information uploaded by the host machine, and stores the local user identifiers and the local profile information in the global user profile. See LIVEINTENT1003 ¶¶60-71, 105.[11.pre]; *supra* §§VI.A.4.[1.a.i], [1.a.iv].

[11.a.i]

See LIVEINTENT1003 ¶105.[11.a.i]; *supra* §VI.A.4.[1.a.i].

[11.a.ii]

See LIVEINTENT1003 ¶105.[11.a.ii]; *supra* §VI.A.4.[1.a.ii].

[11.a.iii]

See LIVEINTENT1003 ¶105.[11.a.iii]; *supra* §VI.A.4.[1.a.iii].

[11.a.iv]

See LIVEINTENT1003 ¶105.[11.a.iv]; *supra* §VI.A.4.[1.a.iv].

[11.b]

See LIVEINTENT1003 ¶105.[11.b]; *supra* §VI.A.4.[1.b].

[11.c]

See LIVEINTENT1003 ¶105.[11.c]; *supra* §VI.A.4.[1.c].

[11.d]

See LIVEINTENT1003 ¶105.[11.d]; *supra* §VI.A.4.[1.d].

13. Claim 13

[13]

See LIVEINTENT1003 ¶105.[13]; *supra* §VI.A.5.[3].

14. Claim 14

[14]

See LIVEINTENT1003 ¶105.[14]; *supra* §VI.A.6.[4].

15. Claim 15

[15]

See LIVEINTENT1003 ¶105.[15]; *supra* §VI.A.7.[5].

16. Claim 16

[16]

See LIVEINTENT1003 ¶105.[16]; *supra* §VI.A.8.[6].

17. Claim 17

[17]

See LIVEINTENT1003 ¶105.[17]; *supra* §VI.A.9.[7].

18. Claim 19

[19]

See LIVEINTENT1003 ¶105.[19]; *supra* §VI.A.10.[9].

19. Claim 20

[20]

See LIVEINTENT1003 ¶105.[20]; *supra* §VI.A.11.[10].

20. Claim 21

[21.pre]

To the extent the preamble is limiting, Robinson-Jaye includes “*a method of collecting profiles of Internet-using entities.*” See LIVEINTENT1003 ¶105.[21]; *supra* §VI.A.4.[1.pre]. Furthermore, as Robinson and Jaye teach, the method is performed by software, application programs used in conjunction with such software, and/or by executing a computer program tangibly embodied in a machine-readable storage device for execution by a processor (*tangible, non-transitory data storage medium comprising indicia of instructions for a processor to perform [the] method*). LIVEINTENT1004, 19:27-30; LIVEINTENT1005, 13:42-51; *see* LIVEINTENT1004, 4:8-15; LIVEINTENT1005, 13:42-14:6; LIVEINTENT1003 ¶¶56, 105.[21.pre].

[21.a.i]

See LIVEINTENT1003 ¶105.[21.a.i]; *supra* §VI.A.4.[1.a.i].

[21.a.ii]

See LIVEINTENT1003 ¶105.[21.a.ii]; *supra* §VI.A.4.[1.a.ii].

[21.a.iii]

See LIVEINTENT1003 ¶105.[21.a.iii]; *supra* §VI.A.4.[1.a.iii].

[21.a.iv]

See LIVEINTENT1003 ¶105.[21.a.iv]; *supra* §VI.A.4.[1.a.iv].

[21.b]

See LIVEINTENT1003 ¶105.[21.b]; *supra* §VI.A.4.[1.b].

[21.c]

See LIVEINTENT1003 ¶105.[21.c]; *supra* §VI.A.4.[1.c].

[21.d]

See LIVEINTENT1003 ¶105.[21.d]; *supra* §VI.A.4.[1.d].

21. Claim 23

[23]

See LIVEINTENT1003 ¶105.[23]; *supra* §VI.A.5.[3].

22. Claim 24

[24]

See LIVEINTENT1003 ¶105.[24]; *supra* §VI.A.6.[4].

23. Claim 25

[25]

See LIVEINTENT1003 ¶105.[25]; *supra* §VI.A.7.[5].

24. Claim 26

[26]

See LIVEINTENT1003 ¶105.[26]; *supra* §VI.A.8.[6].

25. Claim 27

[27]

See LIVEINTENT1003 ¶105.[27]; *supra* §VI.A.9.[7].

26. Claim 29

[29]

See LIVEINTENT1003 ¶105.[29]; *supra* §VI.A.10.[9].

27. Claim 30

[30]

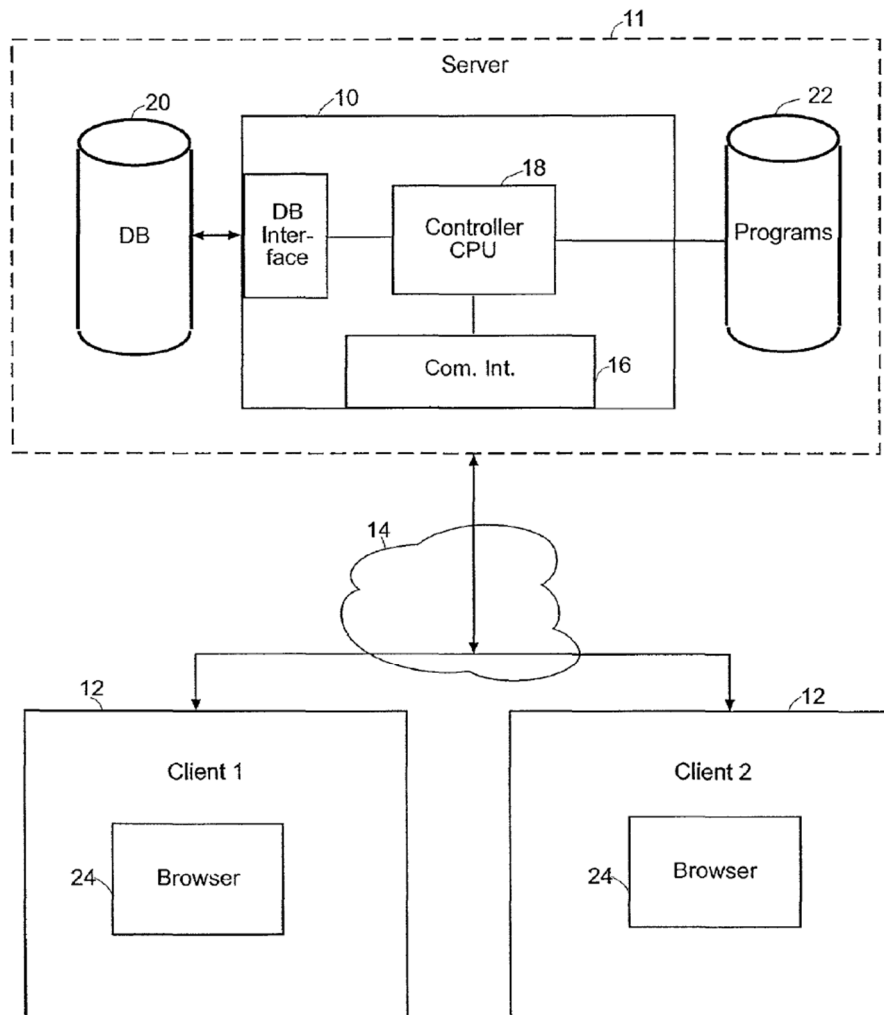
See LIVEINTENT1003 ¶105.[30]; *supra* §VI.A.11.[10].

B. [GROUND 1B] Robinson-Jaye-Coleman Renders Obvious Claims 7-9, 17-19, and 27-29.

1. Coleman Discloses Gathering Information about Users to Create User Profiles, Verifying the Gathered Information, and Selling the Information to Advertisers for Targeted Advertising.

Referring to Figure 1 below, Coleman describes a system proprietor that controls operation of an electronic file 11 on a server 10 with which potential purchasers and sellers of goods or services may interact “to form deals or exchange information,” such as advertisements. LIVEINTENT1006 ¶¶[0043], [0047], [0051], [0111], figs.1, 3, 11; *see* LIVEINTENT1006 ¶¶[0053]-[0054], [0058]-[0067], [0079]-[0086], [0091] [0104]-[0117]; LIVEINTENT1003 ¶86.

Fig. 1



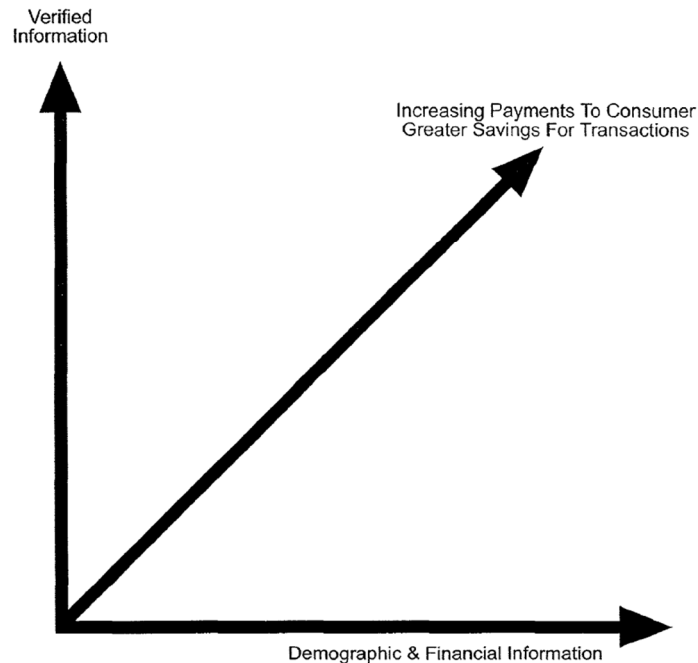
LIVEINTENT1006 fig.1. The electronic file 11 includes profiles of potential purchasers that include information gathered about the potential purchasers.

LIVEINTENT1006 ¶¶[0057], [0066], [0104], [0106]; *see* LIVEINTENT1006 ¶¶[0065]-[0077], figs.2-3, 11.

The information gathered about the potential purchasers “may be verified for accuracy,” e.g., “by comparing it to information in a variety of other databases” or

by self-verification by a potential purchaser. LIVEINTENT1006 ¶¶[0073]-[0074];
see LIVEINTENT1006 ¶¶[0049], [0056]; LIVEINTENT1003 ¶87. As Coleman
describes, referring to Figure 2 below, the value of profile information increases
“as the quality or verifiability of the information increases,” as such verification
can increase the reliability of predictions that a potential purchaser will buy a good
or service offered by a seller. LIVEINTENT1006 ¶[0049], fig.2; *see*
LIVEINTENT1006 ¶¶[0073]-[0074]. “After information has been verified, the po-
tential purchaser's profile may be updated to reflect information from which verifi-
cation with secondary sources was successful and information from which verifica-
tion from secondary sources was not successful.” LIVEINTENT1006 ¶[0074].

Fig. 2



LIVEINTENT1006 fig.2.

Coleman describes that an advertiser can request certain types of information about potential purchasers to determine whether the potential purchasers qualify for the deal that the advertiser wishes to offer. LIVEINTENT1006

¶¶[0084]-[0086]; *see* LIVEINTENT1003 ¶88; LIVEINTENT1006 ¶[0082]. Advertisers can use the profiles for targeting specific users with advertisements and can pay the system proprietor for profiles of the users. LIVEINTENT1006 ¶¶[0106]-[0107], [0111], fig.11; *see* LIVEINTENT1006 ¶¶[0104]-[0114].

2. A POSITA Would Have Been Led to Combine Robinson's, Jaye's, and Coleman's Teachings

A POSITA would have found it obvious to implement in Robinson-Jaye an information verification and sales process as taught in Coleman to enable Robinson-Jaye's central system to (1) verify information collected about users in the global user profile, and (2) set a monetary value of the information based on the verification and sell the information. *See* LIVEINTENT1003 ¶¶89-96.

A POSITA would have recognized that Robinson-Jaye is ready for improvement in view of Coleman's teachings. *See* LIVEINTENT1004 ¶¶90-91. Robinson teaches that participating web sites—analogueous to the owners of the host machines in Robinson-Jaye—pay the company operating the central system for offering the Smart Ad Box and related services for displaying advertisements.

LIVEINTENT1004, 13:58-64; *see* LIVEINTENT1004, 4:8-10, 4:43-52. Jaye similarly contemplates that the enterprise server—analogueous to the central system in Robinson-Jaye—releases portions of global user profiles to advertisers and teaches tracking an age of the collected behavior information about users in the global user profiles so that older behavior information has a lesser impact on an interest score for the user. LIVEINTENT1005, 14:22-25; *see supra* §VI.A.9.[7]. Based on Coleman's teachings, a POSITA would have recognized a desire to sell specific profile information collected in Robinson-Jaye and set monetary values of the profile

information based on the quality or verifiability value of that profile information.

See supra §VI.B.1.

A POSITA would have been led to implement Coleman's information verification and sales process in Robinson-Jaye such that the central system would (1) verify the information stored in the global user profile and (2) assign a monetary value based on the quality or verifiability of the information and sell the information. LIVEINTENT1006 ¶¶[0049], [0073]; *see* LIVEINTENT1003 ¶92; *supra* §VI.A.3(b). A POSITA would have made such a modification to increase reliability of the information in the global user profile, improve advertiser satisfaction in the results of targeting advertisements at users, and improve the success and consistency of targeted advertising that relies on the information. LIVEINTENT1006 ¶¶[0049], [0073]-[0074].

As to the verification, consistent with Coleman's teachings, a POSITA would have modified Robinson-Jaye to include in the global user profile an indicator of quality or verifiability that indicates whether a piece of information has been successfully verified for accuracy or not. LIVEINTENT1006 ¶¶[0049], [0073]-[0074]; LIVEINTENT1003 ¶93. A POSITA would have implemented Robinson-Jaye-Coleman to use various modalities to gather additional information for verifying and identifying discrepancies in pieces of information in the global user profile, e.g., by using public databases and records, third party databases and records,

information from self-verification, and information from other information providers. LIVEINTENT1006 ¶¶[0073]-[0075].

As to the assigned monetary value and the sale of information, a POSITA would have modified Robinson-Jaye such that the central system sets an increased monetary value for a piece of information in the global user profile if the information is verified, as Coleman teaches. LIVEINTENT1006 ¶[0073]; *see* LIVEINTENT1006 ¶[0049]; LIVEINTENT1003 ¶94. The central system would sell to advertisers information in the global user profile to allow the advertisers to target users with advertisements, and the increase in the monetary value of the piece of information resulting from verification would, as a POSITA would have understood and/or found obvious in view of Coleman's teachings, translate to an increase in the amount that an advertiser would pay for use of the global user profile containing that piece of information. LIVEINTENT1006 ¶¶[0106]-[0107], [0111], fig.11; *see* LIVEINTENT1006 ¶¶[0106]-[0114]. As Coleman teaches, the central system would allow the advertiser to select certain high-value information about users that would lead to advertisements more likely to elicit user responses. LIVEINTENT1006 ¶¶[0049], [0073], [0085]. And, as a POSITA would have found obvious in view of Coleman's teachings, the advertisers would be able to select particular high-value information that has been verified by certain verification sources. *See* LIVEINTENT1006 ¶¶[0049], [0056], [0073]-[0074], [0084]-[0085].

Combining Robinson-Jaye's and Coleman's teachings would have merely involved combining known prior art elements (Robinson-Jaye's Smart Ad Box system for tracking and storing user information in a global user profile to present targeted advertising and Coleman's system for verifying and selling user information in a profile) according to known methods (verifying user information in the profile, indicating whether verification of the information was successful, and setting a monetary value of the information as a function of the verification for sale of that information, as Coleman teaches) to yield predictable results (the central system tracking user information in the global user profile, indicating in the global user profile whether the user information was successfully verified, and setting a monetary value of the information as a function of the verification for sale of that information). *See KSR*, 550 U.S. at 416; LIVEINTENT1003 ¶¶95.

A POSITA would have found this combination to be predictable and have had a reasonable expectation of success. *See* LIVEINTENT1003 ¶¶91, 96.

First, like Robinson-Jaye, Coleman teaches a system that involves a server 10 (analogous to Robinson-Jaye's central system) operating the electronic file 11 that stores profiles (analogous to the global user profiles in Robinson-Jaye) about users (analogous to Robinson-Jaye's users). LIVEINTENT1006, ¶¶[0055], [0066], [0104], [0106]-[0107], fig.11; *see* LIVEINTENT1006 ¶¶[0106]-[0114]; *supra* §§VI.A.3(b)-(c), VI.A.4.[1.d].

Second, Robinson-Jaye and Coleman similarly teach using information in these user profiles to target advertising to users. LIVEINTENT1006, ¶¶[0104], [0106]-[0114]; *see supra* §§VI.A.3(b)-(c), VI.A.4.[1.d].

Third, Robinson-Jaye and Coleman both teach quantifying a reliability of this information, with Jaye teaching tracking an age of collected information to determine reliability of the information and Coleman teaching tracking verification of collected information similarly to determine reliability of the information. *See* LIVEINTENT1005, 2:58-62, 8:55-59; LIVEINTENT1006 ¶¶[0049], [0073]-[0074], fig.2; *supra* §VI.A.9.[7].

Finally, Robinson-Jaye and Coleman both contemplate operation of their systems over the Internet using conventional computer networking technology, including servers, computers, and protocols. LIVEINTENT1006 ¶¶[0043]-[0044]; LIVEINTENT1004, 8:41-50, 8:65-9:20, 9:49-53, 19:27-33; LIVEINTENT1005, 4:5-23, 13:42-62; *see supra* §VI.A.3(a).

Dr. Mitzenmacher provides a detailed discussion of technical features of an example implementation of Robinson-Jaye-Coleman. LIVEINTENT1003 ¶¶97-103.

3. Claim 7

[7]

In Robinson-Jaye-Coleman, the central system stores an indicator of quality

or verifiability (*a credibility rating*) of the information in the global user profile about the user (*at least one of the profile attributes of the maintained profile*). See LIVEINTENT1003 ¶¶99-100, 106.[7]; *supra* §VI.B.2. This indicator of quality or verifiability corresponds to “*a credibility rating*,” e.g., because the ’904 Patent describes that verification of information in a partial profile is indicative of a credibility rating of the information. LIVEINTENT1004, 15:43-56; *see* LIVEINTENT1004, 10:47-64, 15:57-65, 16:37-51.

4. Claim 8

[8]

In Robinson-Jaye-Coleman, the quality or verifiability of the piece of information in the global user profile is reflected in the assigned price or value of the piece of information (*the credibility rating is reflected in a price for the at least one profile attribute*). See LIVEINTENT1003 ¶¶101-02, 106.[8]; *supra* §VI.B.2. Specifically, consistent with Coleman’s teachings, in Robinson-Jaye-Coleman, the monetary value of a piece of information in the global user profile, and hence the value that an advertiser would pay for the global user profile containing that piece of information, increases if the information is verified. LIVEINTENT1006 ¶¶[0073], [0106]-[0107], [0111]; *see* LIVEINTENT1006 ¶¶[0049], [0106]-[0114], fig.11; *supra* §VI.B.2.

5. Claim 9

[9]

In Robinson-Jaye-Coleman, as Coleman teaches, the central system selects particular high-value information about the user (*selecting profile attributes from the maintained profile*) desired by an advertiser. LIVEINTENT1006 ¶¶[0049], [0073], [0085]; *see* LIVEINTENT1003 ¶¶103, 106.[9]; *supra* §VI.B.2. Coleman teaches that the advertiser can mandate certain “required information” about the user before the user is selected for a deal (e.g., an advertisement), and this “required information” must have a certain required threshold “value” before the advertiser would agree to make the deal with the user. LIVEINTENT1006 ¶¶[0084]-[0085]; *see* LIVEINTENT1006 ¶¶[0055], [0060]-[0061]. The verification of information results in information having increased value, and certain sources are “verification sources” (e.g., “various online sources, credit bureaus, government databases, credit card companies, and any other information providers”) that can perform this verification. LIVEINTENT1006 ¶¶[0074]-[0075]; *see* LIVEINTENT1006 ¶¶[0049], [0056], [0073]-[0074]. Hence, in Robinson-Jaye-Coleman, as Coleman teaches and a POSITA would have understood and/or found obvious in view of Coleman’s teachings, the advertiser is able to request from the central system certain “required information” that has been verified by certain verification sources (*based on the source thereof*) so that the advertiser can offer

advertisements using high-value information. *See* LIVEINTENT1006 ¶¶[0049],
[0056], [0073]-[0075], [0084]-[0086]; *supra* §VI.B.2.

6. Claim 17

[17]

See supra §VI.B.3.[7].

7. Claim 18

[18]

See supra §VI.B.4.[8].

8. Claim 19

[9]

See supra §VI.B.5.[9].

9. Claim 27

[27]

See supra §VI.B.3.[7].

10. Claim 28

[28]

See supra §VI.B.4.[8].

11. Claim 29

[29]

See supra VI.B.5.[9].

VII. BOARD DISCRETION SHOULD NOT PRECLUDE INSTITUTION.

Petitioner believes that discretionary denial is unwarranted, and yet, Petitioner intends to utilize the bifurcated briefing process contemplated by the March 26, 2025, Stewart Memorandum to rebut contentions if offered by Patent Owner to the contrary. *See generally* LIVEINTENT1008.

VIII. CONCLUSION AND FEES

The Challenged Claims are unpatentable. Petitioner authorizes charge of fees to Deposit Account 06-1050.

IX. MANDATORY NOTICES UNDER 37 C.F.R. §42.8(A)(1)

A. Real Party-In-Interest Under 37 C.F.R. §42.8(b)(1)

LiveIntent, Inc., Zeta Global Holdings Corp., and Zeta Global Corp. are the real parties-in-interest.

B. Related Matters Under 37 C.F.R. §42.8(b)(2)

AlmondNet, Inc., Intent IQ, LLC, and Datonics LLC asserted infringement of the '904 Patent against Petitioner in the United States District Court for the District of Delaware. *AlmondNet, Inc. et al v. LiveIntent, Inc.*, DDE-1-24-cv-00831, filed July 18, 2024.

The '904 Patent is further the subject of civil actions including:

- *AlmondNet, Inc. et al v. Amazon.com, Inc. et al.*, Case No. 6-24-cv-00234 (WDTX), filed May 3, 2024;

- *AlmondNet, Inc. et al v. Lotame Solutions, Inc.*, Case No. 1-24-cv-00376 (DDE), filed March 22, 2024;
- *AlmondNet, Inc. et al v. Oath Holdings Inc.*, Case No. 1-19-cv-00247 (DDE), filed February 6, 2019;
- *AlmondNet, Inc. et al v. Yahoo! Inc.*, Case No. 1-16-cv-01557 (EDNY), filed March 30, 2016.

The '904 Patent is also the subject of the following Patent Trial and Appeal Board proceedings:

- *Yahoo! Inc. v. AlmondNet, Inc. et al.*, Case No. CBM2017-00051, filed May 15, 2017.
- *Amazon.com, Inc. et al v. AlmondNet, Inc.*, Case No. IPR2025-00545, filed March 10, 2025.

The '904 Patent is subject to a disclaimer of claims 2, 12, and 22.

LIVEINTENT1002, 1, 19.

Petitioner is not aware of any other disclaimers, reexamination certificates, or IPR petitions addressing the '904 Patent.

C. Lead And Backup Counsel Under 37 C.F.R. §42.8(b)(3)

Petitioner provides the following designation of counsel.

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D. Service Information

Please address all correspondence and service to the address listed above.

Petitioner consents to electronic service by email at IPR58717-0005IP1@fr.com

(referencing No. 58717-0005IP1 and cc'ing PTABInbound@fr.com).

Respectfully submitted,

Dated 6-20-25

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CERTIFICATION UNDER 37 CFR § 42.24

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Petition for *Inter Partes* Review totals 13,874 words, which is less than the 14,000 allowed under 37 CFR § 42.24.

Dated 6-20-25

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e)(4)(i) *et seq.* and 42.105(b), the undersigned certifies that on June 20, 2025, a complete and entire copy of this Petition for *Inter Partes* Review and all supporting exhibits were provided by Federal Express, to the Patent Owner, by serving the correspondence address of record as follows:

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