EXHIBIT F

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

INTERVAL LICENSING LLC, Plaintiff, v. AOL, INC.; APPLE, INC.; eBAY, INC.; FACEBOOK, INC.; GOOGLE INC.; NETFLIX, INC.; OFFICE DEPOT, INC.; OFFICEMAX INC.; STAPLES, INC.; YAHOO! INC.; AND YOUTUBE, LLC, Defendants.	Case No. 2:10-cv-01385-MJP

DECLARATION OF WILLIAM HENRY MANGIONE-SMITH IN SUPPORT OF INTERVAL LICENSING LLC'S PROPOSED CLAIM CONSTRUCTIONS

Preface

1 My name is William Henry Mangione-Smith. I have prepared this report through my personal consulting firm, Phase Two LLC. This report was prepared at the behest of Heim Payne & Chorush LLP, on behalf of Interval Licensing LLC. ("Interval"). I understand this report is to be used in the matter of INTERVAL LICENSING LLC, v. AOL, INC et al. I have been asked to review certain claim elements from US Patent 6,034,652 (the '652 patent) and comment on issues related to claim construction.

2 I am the sole proprietor and employee of Phase Two, LLC and I am being compensated at $450/hr for my work related to this report. My compensation is in no way dependent on the outcome of this matter or the testimony or opinions that I give.

3 My curriculum vitae and testimony list are included in Appendix A. To summarize my qualifications, I hold three academic degrees in the field of Computer Engineering: A Bachelors of Science Engineering, a Master's of Science Engineering, and a Doctorate of Philosophy degree. All of my degrees were earned at the University of Michigan in Ann Arbor. I have been involved in the design of hand held communicating devices, image display devices, microprocessors, firmware and software for hardware and computer systems, and multimedia applications.

4 My opinions and conclusions are fully discussed in later sections of this report.

5 In reaching these opinions and conclusions, I have relied upon my education, experience and training, my review of the patent, and the prosecution histories of the '652 Patent and its continuations. A list of materials relied upon is provided at the end of this report.

Professional Qualifications

6 My technical background covers most aspects of computer system design, including low level circuitry, computer architecture, computer networking, graphics, application software, and system software (e.g., operating systems and compilers). Early on in my career I had a particular focus on high performance computing; however for the past 14 years my attention has been directed towards embedded devices such as cell phones, laptop computers, and various control systems. I am a member of the Institute of Electrical and Electronics Engineers and the Association for Computing Machinery, which are the two most significant professional organizations in my profession. I have been employed as a design engineer, research engineer, professor and technical expert. Over my professional career I have been an active inventor with ten issued U.S. patents, 141 published and pending U.S. patent applications and many unpublished U.S. patent applications.

7 From 1984 until 1991 I attended the University of Michigan in Ann Arbor, Michigan. I was awarded the degrees Bachelors of Engineering, Masters of Engineering, and Doctorate of Philosophy in the area of computer engineering. My doctoral research focused on high performance computing systems including computer architecture, applications and operating system software, and compiler technology. One of my responsibilities included teaching senior Bachelors of Engineering students who were about to enter the profession.

8 After graduating from the University of Michigan I was employed by Motorola in Schaumburg, Illinois. While at Motorola, I was part of a team designing and manufacturing the first commercial battery-powered product capable of delivering Internet email over a wireless (i.e., radio frequency) link and one of the first personal digital assistants. I also served as the lead architect on the second-generation of this device. Part of my responsibilities at Motorola involved the specification, design, and testing of system control Application-Specific Integrated Circuits ("ASICs"). I conducted the initial research and advanced design that resulted in the Motorola M*Core embedded microprocessor. M*Core was designed to provide the high performance of desktop microprocessors with the low power of contemporaneous embedded processors. While at Motorola I was the sole inventor on a single U.S. patent.

9 From 1995 until 2005 I was employed by the University of California at Los Angeles ("UCLA") as a professor of Electrical Engineering. I was the director of the laboratory for Compiler and Architecture Research in Embedded Systems ("CARES") and served as the field chair for Embedded Computing Systems. The CARES research team focused on research, engineering and design challenges in the context of battery-powered and multi-media mobile computing devices. My primary responsibility, in addition to class room teaching, involved directing the research and training of Masters of Engineering and Doctoral candidates. I was a tenured member of the faculty, and had responsibilities for teaching as well as scholarly research. While at UCLA I was a named inventor on one U.S. patent and two pending patent applications. My colleagues at UCLA were some of the leading scientists and engineers in the world with a long list of innovations from computer network security devices to the nicotine patch. The graduate student researchers in my laboratory came from a diverse set of backgrounds, all with bachelor's degrees in computer engineering, electrical engineering or computer science, many with multiple years of experience working as professional engineers in areas such as software development, computer system design and ASIC circuit design.

10 From 2005 until 2009, I was employed at Intellectual Ventures in Bellevue, Washington. My responsibilities at Intellectual Ventures included business development, technology assessment, market forecasting, university outreach, collaborative inventing, intellectual property licensing support, and intellectual property asset pricing. My colleagues and co-inventors at Intellectual Ventures included the former lead intellectual property strategist at Intel, Intel's lead IP counsel, Microsoft's chief software architect, the founder of Microsoft research, the designer of the Mach operating system, the architect of the U.S. Defense Department's Strategic Defense Initiative, the founder of Thinking Machines which was one of the seminal parallel processing computer systems, and Bill Gates. I had responsibility for hiring and managing over 15 staff members including multiple Ph. D.s with degrees in electrical engineering and decades of experience in product design and engineering.

11 Since the beginning of 2009, I have been working as an independent consultant in a wide range of technology areas related to innovation and intellectual property licensing.

Legal Standards Relied Upon

12 Certain legal principles that relate to my opinions have been explained to me.

13 When interpreting the claim terms I have attempted to interpret the claims of the '652 Patent from the perspective of a person of ordinary skill in the relevant art at the time

the original application that led to issuance of the '652 Patent was filed—March 22, 1996. In my opinion, a person of ordinary skill in the art of the '652 Patent would have a Bachelor's degree in Electrical Engineering/Computer Science or a related degree with five years of work experience, or a Master's degree in Computer Science or related degree with two years of work experience in the design and implementation of Internet software services.

14 I believe that a person of ordinary skill can obtain this knowledge from on-the-job experience, training, education, or a combination of these sources.

15 I understand that a patent includes a specification that describes the patented invention. The written specification includes a description of the preferred embodiment of the invention and drawings. I understand the preferred embodiment to be only an example of the claimed invention(s). I also understand that the specification includes claims that define the scope of the inventions. When interpreting the claims, I understand that the ordinary meaning of the language within the claims should be followed unless the specification or prosecution history provides reason for a different interpretation. I further understand that the claims may not be interpreted to require particular features of the preferred embodiment of the invention unless the claims expressly recite those features.

16 It is my understanding that 35 U.S.C. § 112 ¶ 6 specifies that:

> *An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.*

17 Furthermore it is my understanding that an element of a claim may be construed to be controlled by this language from 35 U.S.C. § 112 ¶ 6 without literally containing either the phrase "means for" or "step for". Furthermore it is my understanding that an element of a claim may contain either the phrase "means for" or "step for" and yet not fall under this language from 35 U.S.C. § 112 ¶ 6 where the limitation recites sufficient structure to perform the function. However, I understand when the language in a claim contains the phrase "means for" or "step for" the recited element is presumed to be governed by 35 U.S.C. § 112, ¶ 6.

18 It is my understanding that for the purposes of claim construction claim elements that are believed to fall under 35 U.S.C. § 112 ¶ 6 should be analyzed using a two step process. First, the appropriate function or step must be identified based on a review of the claim language itself. Second, a corresponding structure or act must be identified from the written description that can be used to implement the corresponding means or step. I understand that the corresponding structure or step is

intended to be the smallest structure or step that performs the recited function. Finally it is my understanding that the claim language should be construed to cover all systems or methods that implement the corresponding structure or execute the corresponding act as well as any equivalent structures or acts. I understand equivalent structures to be those that perform the same function in substantially the same way to achieve substantially the same result as the corresponding structure(s) disclosed in the specification.

Claim Elements

Means for acquiring a set of content data from a content providing system

19 This limitation appears in claims 2 and 4 of the '652 Patent.

20 The limitation "means for acquiring a set of content data from a content providing system" recites the language "means for," which indicates that § 112(6) presumptively applies. Because the limitation does not recite sufficient structure for performing the function, I believe the limitation should be construed under § 112(6).

21 In my opinion, the relevant function for the limitation "means for acquiring a set of content data from a content providing system" is "acquiring a set of content data from a content providing system."

22 In my opinion, one of ordinary skill in the art on or around March 22, 1996 would conclude that the corresponding structure recited in the '652 Patent specification is: one or more digital computers programmed to perform at least the steps of (1) enabling a user to directly request a particular set of content data, (2) indicating to a content providing system that the requesting content display system has requested the set of content data, and (3) obtaining the particular set(s) of content data requested.

SUPPORT:

23 With respect to the acquiring a set of content data function, the written description of the '652 Patent explains:

"FIG. 4 is a flow chart of a method 400 according to the invention for acquiring and updating sets of content data, i.e., the method 400 is an embodiment, at least in part, of the acquisition instructions 331 and content data update instructions 332 of the content data acquisition instructions 330 discussed above with respect to FIGS. 3A through 3C. In the method 400, the steps shown by blocks 402 through 407 can be implemented in the acquisition instructions 331 and the steps shown by blocks 403 through 410 can be implemented in the content data update instructions 332.

Generally, the steps of the method 400 can be implemented on an appropriately programmed digital computer that is programmed to perform the functions of the method 400, as described below." '652 Patent at 18:32-45.

24 In particular, the written description explains that the method shown in Figure 4 is used to acquire and update sets of content data. It also states that "[g]enerally, the steps of the method 400 can be implemented on an appropriately programmed digital computer that is programmed to perform the functions of the method 400." Thus, the appropriate structure for performing the "acquiring a set of content data function" is a digital computer that is programmed to perform the recited function of acquiring content data from a content providing system.

25 "As will be understood by those skilled in the art of digital computer programming for computer network communications, when the method 400 is implemented using a programmed digital computer, particular steps of method 400 could be implemented on either a content display system 203 or a content providing system 202." '652 Patent at 18:49-55; *see also* 14:12-14.

26 The '652 Patent describes a series of steps that the appropriately programmed computer must undertake to "acquire a set of content data from a content providing system." Specifically, the written description states:

"In the step shown in the block 401 (referred to hereinafter as step 401), a set of content data is selected for display by the attention manager. Initially, in step 401, particular sets of content data are obtained as a result of direct request by the user. Any appropriate user interface can be used for enabling a user to directly request a particular set of content data. For example, Web pages on the World Wide Web could include graphical buttons for enabling users that visit the Web page to request particular sets of content data. Selection of a button on a Web page results in an indication to the appropriate content providing system 202 that the requesting content display system 203 has requested the set of content data corresponding to the selected button to be transferred to the content display system 203." '652 Patent at 18:56-19:2.

27 The '652 Patent teaches that the following series of steps should be undertaken by the appropriately programmed digital computer to perform the recited function: (1) "enabling a user to directly request a particular set of content data," (2) "indicati[ng] to the appropriate content providing system 202 that the requesting content display system 203 has requested the set of content data," and (3) "obtain[ing]" the "particular sets of content data" requested.

Means for selectively displaying on the display device, in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with the apparatus, an image or images generated from the set of content data

28 This limitation appears in claims 2 and 4 of the '652 Patent.

29 The limitation "means for selectively displaying . . . an image or images generated from the set of content data" recites the language "means for," which indicates that § 112(6) presumptively applies. Because the limitation does not recite sufficient structure for performing the function, I believe the limitation should be construed under § 112(6).

30 In my opinion the appropriate function for this limitation is: Selectively displaying an image or images generated from the set of content data on the display device in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with the apparatus. I have changed the order of the words from the recited claim language for clarity, but I do not believe the change in order affects the meaning of the recited function. I also believe that the recited function could be stated just as it is in the claim language.

31 In my opinion, one of ordinary skill in the art on or around March 22, 1996 would conclude that the corresponding structure recited in the '652 Patent specification is : One or more digital computers programmed to perform at least steps 521 (identify the next set of content data in the schedule) and 105 (display the next set of content data in the schedule in an unobtrusive manner that does not distract a user of the apparatus from a primary interaction with the apparatus) of Figs. 1 and 5.

SUPPORT:

32 With respect to the recited function, the '652 Patent states:

> "A set or sets of instructions for enabling a display device to selectively display an image or images generated from a set of content data are also made available for use by the content display systems. Typically, the instructions enable images generated from content data to be displayed automatically, without user intervention, in a predetermined manner, thereby enhancing the capability of the invention to occupy the user's peripheral attention." '652 Patent at 2:35-42; *see also* 7:8-16.

33 The '652 Patent specification also teaches:

> "If, in step 107, there are additional sets of content data to be displayed, then the method 100 returns to the step 105 and displays a set of content data in accordance with the previously determined display schedule. Steps 105, 106 and 107 are

continuously performed, resulting in the continuous display of sets of content data, until either the user terminates the attention manager (step 106) or there are no more sets of content data to be displayed (step 107)." '652 Patent at 12:24-32.

34 The '652 Patent also states:

"Like the method 100 (FIG. 1), the method 500 is performed by a content display system 203 according to the invention which can be implemented, for example, using a digital computer that includes a display device and that is programmed to perform the functions of method 500, as described below. Below, the method 500 is described as implemented on such a digital computer, though the method 500 could be implemented on other apparatus. Steps in the method 500 that are the same as steps in the method 100 are shown by like-numbered blocks. Generally, the method 500 differs from the method 100 in that the method 500 provides a number of control options that enable the user to effect particular types of control of the attention manager." '652 Patent at 24:61-25:7.

Means for displaying one or more control options with the display device while the means for selectively displaying is operating

35 This limitation appears in claim 4 of the '652 Patent.

36 The limitation "means for displaying one or more control options with the display device while the means for selectively displaying is operating" recites the language "means for," which indicates that § 112(6) presumptively applies. Because the limitation does not recite sufficient structure for performing the function, I believe the limitation should be construed under § 112(6).

37 In my opinion, the relevant function for the limitation "means for displaying one or more control options with the display device while the means for selectively displaying is operating" is "displaying one or more control options with the display device while the means for selectively displaying is operating."

38 In my opinion, one of ordinary skill in the art on or around March 22, 1996 would conclude that the corresponding structure recited in the '652 Patent specification is: One or more digital computers programmed to provide a dialog box that includes a list of one or more of the following control options: perform at least one of steps 501 (Want to display the next set of content data in the schedule?), 502 (Want to display the previous set of content data in the schedule?), 503 (Want to remove the current set of content data from the schedule?), 504 (Want to prevent display of the current set of content data until that set of content data has been updated?), and 505 (Want to specify a satisfaction level for the current set of content data?), and any equivalents.

SUPPORT:

39 The '652 Patent explains displaying one or more control options with the display device as follows:

"Fig. 6 illustrates a computer display screen including a user interface, according to one embodiment of the invention, that can be used to enable a user to specify a control option." '652 Patent at 6:1-4.

"The attention manager according to this embodiment of the invention can include any suitable user interface to enable the user to specify a control option. FIG. 6 illustrates a computer display screen 600 including one embodiment of such a user interface. The screen 600 displays, in addition to an image generated from a set of content data 350, a dialog box 601 that includes a list of available control options 602a through 602e. The dialog box 601 can remain on the screen 600 during the entire time that the attention manager is operating. The available control options 602a through 602e shown in the dialog box 601--as well as additional control options that could be, but are not, included in the dialog box 601--are discussed in more detail below." '652 Patent at 25:14-16

40 The '652 Patent teaches that displaying control options is done using "a dialog box 601 that includes a list of available control options 602a through 602e." It further teaches additional control options could be included in the dialog box 601 and are discussed in more detail later in the specification.

Means for selecting a displayed control option

41 This limitation appears in claim 4 of the '652 Patent.

42 The limitation "means for selecting a displayed control option" recites the language "means for," which indicates that § 112(6) presumptively applies. Because the limitation does not recite sufficient structure for performing the function, I believe the limitation should be construed under § 112(6).

43 In my opinion, the relevant function for the limitation "means for selecting a displayed control option" is "selecting a displayed control option."

44 In my opinion, one of ordinary skill in the art on or around March 22, 1996 would conclude that the corresponding structure recited in the '652 Patent specification is: A keyboard, mouse, touch screen, voice recognition system, or equivalents.

SUPPORT:

45 The '652 Patent teaches how a displayed control option is selected:

"The manner of selecting an option depends upon the available user input device(s). For example, a keyboard could be used to move a cursor to a desired option, which is then selected using the Enter key. Or, a mouse could be used to move a cursor to a desired option, then clicked to select the option. Or, a touch pen could be used to contact the screen 600 (if the screen 600 is a touch-sensitive screen) at an appropriate location to cause a desired option to be selected. Or, an audio command could be issued to a voice recognition system which causes the desired option to be selected." '652 Patent at 25:27-37.

46 The '652 Patent provides a list of input devices that can be used to select a displayed control option, including a keyboard, mouse, or a touch pen with touch-sensitive screen, or voice recognition system. Also, the '652 Patent states: "Generally, the computers can be any conventional digital computers including an input device (such as a keyboard, mouse or touch screen) . . ." '652 Patent at 14:15-17.

Means for controlling aspects of the operation of the system in accordance with a selected control option

47 This limitation appears in claim 4 of the '652 Patent.

48 The limitation "means for controlling aspects of the operation of the system in accordance with a selected control option" recites the language "means for," which indicates that § 112(6) presumptively applies. Because the limitation does not recite sufficient structure for performing the function, I believe the limitation should be construed under § 112(6).

49 In my opinion, the relevant function for the limitation "means for controlling aspects of the operation of the system in accordance with a selected control option" is: controlling aspects of the operation of the system in accordance with a selected control option.

50 In my opinion, one of ordinary skill in the art on or around March 22, 1996 would conclude that the corresponding structure recited in the '652 Patent specification is: One or more digital computers programmed to perform one or more of the following actions in response to a request from the user: (1) terminate the operation of the attention manager, (2) begin display of the next scheduled set of content data, (3) begin display of the previous scheduled set of content data, (4) remove a set of content data from the display schedule, (5) prevent a set of content data from being displayed until it has been updated, (6) modify the display schedule in response to a user's identified satisfaction with a set of content data, (7) establish a link with an information source, (8) provide an overview of all of the content data available for display by the attention manager, (9) maintain display of the current set of content data, or (10) remove the control option interface and equivalents.

SUPPORT:

51 The '652 Patent describes several potential control options and how the operation of the system is controlled in response to selecting each one: exit/termination ('652 Patent at 25:38-45); next content data (25:46-52); previous content data (25:53-60); remove content data (25:61-26:11); prevent display until update (26:12-40); specify satisfaction (26:41-51); linking (27:16-48); obtaining an overview of available information (27:64-28:9); pause (28:10-20); and cancel (28:21-28).

52 The exit/termination control option is described in further detail in the '652 Patent: "[D]irect termination of operation of the attention manager can be effected by, for example, causing operation of the attention manager to terminate when the user selects a control option that specifies such termination, as described in more detail below with respect to FIGS. 5A, 5B and 6." 11:62-67.

53 The file history of the '652 Patent further supports my opinion: "A 'means for controlling aspects of the operation of the system in accordance with a selected control option,' as recited in Claim 33, and, more particularly that 'the means for controlling terminates operation of the system,' as recited in Claim 34, was embodied by the content display computer operating in accordance with the computer program shown in Exhibit 2 (see, e.g., the condition 'the hilite of cast 'on/off'' in line 38 on page 6 of Exhibit 2)." '652 File History, 6/14/99 Response to Office Action, at 25-26

Means for scheduling the display of an image or images generated from a set of content data

54 This limitation appears in claims 6-10 of the '652 Patent.

55 The limitation "means for scheduling the display of an image or images generated from a set of content data" recites the language "means for," which indicates that § 112(6) presumptively applies. Because the limitation does not recite sufficient structure for performing the function, I believe the limitation should be construed under § 112(6).

56 In my opinion, the relevant function for the limitation "means for scheduling the display of an image or images generated from a set of content data" is: scheduling the display of an image or images generated from a set of content data.

57 In my opinion, one of ordinary skill in the art on or around March 22, 1996 would conclude that the corresponding structure recited in the '652 Patent specification is: One or more digital computers programmed to (1) determine whether sets of content data are available for display, and (2) determine if, when, and for how long an image or images generated from the set of content data will be displayed.

SUPPORT:

58 The '652 Patent explains how to schedule the display of an image or images generated from a set of content data as follows:

"If, in step 103, at least one set of content data is available for display, then, in the step shown in block 104 (hereinafter referred to as step 104), the available sets of content data are scheduled for display by the content display system. (Alternatively, in other embodiments of the invention, scheduling the sets of content data can occur before the method 100 begins. Such scheduling might be implemented, for example, so that each time a new set of content data is received by the content display system, the schedule is revised to include the new set of content data. Typically, when the content display system acquires a new (or updated) set of content data, scheduling information for that set of content data is also acquired. Taken together, the scheduling information for all of the sets of content data is used to determine a schedule for display of the sets of content data by the content display system. Generally, determining a display schedule involves specifying the order in which the sets of content data are to be displayed and the duration of time for which each set of content data is to be displayed. The determination of the display schedule can also accommodate (to the extent possible) any special scheduling parameters for particular sets of content data (e.g., restrictions specifying when a particular set of content data must be displayed or cannot be displayed), mediating any conflicts between the display requirements of particular sets of content data. . . . [T]he display schedule can also accommodate scheduling parameters that delete sets of content data from the display schedule during particular iterations, thereby, for example, controlling the frequency with which particular sets of content data are displayed." '652 Patent at 10:4-39 (emphases added).

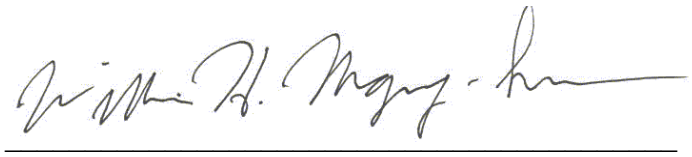
59 The '652 Patent further explains how to mediate conflicts when the schedule determines that more than one set of content data should be displayed at a given time:

"Any appropriate set of rules that can, for example, be arranged in any appropriate hierarchical manner, can be used for establishing a display schedule and, in particular, mediating conflicts between conflicting scheduling parameters associated with different sets of content data. For example, one rule for mediating conflicts may give preference to displaying sets of content data so that the sets of content data are displayed inversely to the order in which they were obtained by the content display system. This rule might be further specified so that a set of content data that has never previously been displayed by the attention manager is displayed prior to display of a set of content data that has been previously displayed, even though an update of the previously displayed set of content data has been obtained at a later time than that at which the never displayed set of content data was obtained. Another rule for

mediating conflicts might resolve a conflict between two sets of content data having scheduling parameters that specify display at the same sequential position in the display schedule by randomly selecting one of the sets of content data to be displayed first during each iteration through the display schedule. Still another rule for mediating conflicts might establish a hierarchy of kinds of content data, with sets of content data of kinds at the top of the hierarchy being given preference for display over those at the bottom. Yet another rule or set of rules for mediating conflicts may involve performing some sort of analysis of the characteristics of the sets of content data that have been obtained by a particular content display system to ascertain preferences indicated thereby, and giving preference to sets of content data that are evaluated to be relatively more preferred. Scheduling rules of this kind would typically be part of the scheduling parameters provided independent of the content providers (i.e., in the content display system scheduling instructions, as discussed elsewhere herein and, in particular, with respect to FIGS. 3A through 3C below." '652 Patent at 10:43-11:10.

Conclusion

60 I declare under penalty of perjury that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true. Executed on _____Monday April 4'th, 2011_____.



William H. Mangione-Smith, Ph.D.