IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

PERSONALIZED MEDIA COMMUNICATIONS LLC	§	
	§	
	§	Case No. 2:12-CV-68-JRG-RSP
v.	§	
	§	
ZYNGA, INC.	§	

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BACKGROUND

Before the Court is the parties' claim construction briefing (Dkt. 77, 80 and 86). In addition, the Court heard oral arguments on April 17, 2013. There are four patents-in-suit: U.S. Patent No. 7,734,251 (the "'251 Patent"), U.S. Patent No. 7,797,717 (the "'717 Patent"), U.S. Patent No. 7,860,131 (the "'131 Patent"), and U.S. Patent No. 7,908,638 (the "'638 Patent").[1]

The patents-in-suit are part of patent family which has extensive prosecution and litigation history. The parent application for the patents-in-suit was filed in 1981 and issued as U.S. Patent No. 4,694,490 (the "'490 Patent"). The '490 Patent was supplemented by a continuation-in-part application in 1987, which issued as the U.S. Patent No. 4,965,825 Patent (the "'825 Patent"). The patents in suit, filed in May and June 1995, are part of a chain of continuation applications filed from the '825 Patent. The family of patents has been the subject of multiple infringement actions including District Court and ITC actions. The prior actions include most recently *Personalized Media Communication, LLC v. Motorola, Inc., et al.*, 2:08-cv-70 (E.D. Tex.) in which a claim construction order was issued at Dkt. 271 (the "*EchoStar* Order").

Fourteen groups of terms are presented by the parties for construction. Two of those terms relate to constructions issued in *EchoStar*.

The patents in suit generally relate to the delivery of programming content to consumers. More particularly the patents relate to the concept of delivering "personalized" programming. The patents in suit share a common Abstract:

> A unified system of programming communication. The system encompasses the prior art (television, radio, broadcast hardcopy, computer communications, etc.) and new user specific mass media.

[1] For convenience citations to rows and columns of the 'XXX Patent are made as 'XXX Col:Line.

> Within the unified system, parallel processing computer systems, each having an input (e.g., 77) controlling a plurality of computers (e.g., 205), generate and output user information at receiver stations. Under broadcast control, local computers (73, 205), combine user information selectively into prior art communications to exhibit personalized mass media programming at video monitors (202), speakers (263), printers (221), etc. At intermediate transmission stations (e.g., cable television stations), signals in network broadcasts and from local inputs (74, 77, 97, 98) cause control processors (71) and computers (73) to selectively automate connection and operation of receivers (53), recorder/players (76), computers (73), generators (82), strippers (81), etc. At receiver stations, signals in received transmissions and from local inputs (225, 218, 22) cause control processors (200) and computers (205) to automate connection and operation of converters (201), tuners (215), decryptors (224), recorder/players (217), computers (205), furnaces (206), etc. Processors (71, 200) meter and monitor availability and usage of programming.

'251 Abstract.

APPLICABLE LAW

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *See id.* at 1313. *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. Courts give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the entire patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

The claims themselves provide substantial guidance in determining the meaning of particular claim terms. *Phillips*, 415 F.3d at 1314. First, a term's context in the asserted claim can be very instructive. *Id*. Other asserted or unasserted claims can also aid in determining the claim's meaning because claim terms are typically used consistently throughout the patent. *Id*. Differences among the claim terms can also assist in understanding a term's meaning. *Id*. For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id*. at 1314–15.

"[C]laims 'must be read in view of the specification, of which they are a part.'" *Id*. (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Id*. (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms, give a claim term a different meaning than the term would otherwise possess, or disclaim or disavow the claim scope. *Phillips*, 415 F.3d at 1316. In these situations, the inventor's lexicography governs. *Id*. The specification may also resolve ambiguous claim terms "where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." *Teleflex, Inc.*, 299 F.3d at 1325. But, "'[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.'" *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. The prosecution history is another

tool to supply the proper context for claim construction because a patent applicant may also define a term in prosecuting the patent. *Home Diagnostics, Inc., v. Lifescan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) ("As in the case of the specification, a patent applicant may define a term in prosecuting a patent.").

Although extrinsic evidence can be useful, it is "'less significant than the intrinsic record in determining the legally operative meaning of claim language.'" *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id*. at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert's conclusory, unsupported assertions as to a term's definition are entirely unhelpful to a court. *Id*. Generally, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id*.

CONSTRUCTION OF DISPUTED TERMS

A. "subscriber"[2]

PMC's Proposed Construction	Zynga's Proposed Construction
This term does not require construction. However, if a construction for this term is entered, it should be: "a subscriber to information is one who views, hears, reads, or in some other way perceives the information."	"a person or company that has agreed to pay for access to a publication or service that is unavailable to non-subscribers."

The primary dispute relates to whether a "subscriber" is one who agrees to pay for content and whether subscriber merely equates to using information.

PMC

PMC asserts that the patents teach that "many different classes of subscriber will exist with different information demands." '251 272:64-67. PMC asserts that the patents teach that one class of subscribers is television viewers.

> At the station of Figs 7 and 7B, a subscriber decides to watch a particular television program the audio of which is stereo simulcast on a local radio station, in a fashion well known in the art. Said subscriber switches power on to TV set, 202, and manually selects the proper channel, which is, for example, channel 13, at the television tuner, 215, of said set, 202, thereby display of the video and audio information of the transmission of said channel.

'251 209:60-67.

> In the example, the subscriber station of Fig. 1 is in New York City and is tuned to the conventional broadcast television transmission frequency of channel 13 at 8:30 PM on a Friday evening when the broadcast station of said frequency, WNET, commences transmitting a television program about stock market investing, "Wall Street Week."… From said program originating studio said program is transmitted by conventional television network feed transmission means, well known in the art, to a large number of geographically dispersed intermediate transmission stations that

[2] '251 Claims 18, 22, 23 and 28'717 Claims 1, 2, 3, and 9; '131 Claim 3; and '638 Claims 1, 6, 11, 12, 13 and 15.

> retransmit said program to millions of subscriber stations where subscribers view said program.

'251 11:19-35. PMC cites to '251 9:14-16 as an example that describes subscribers being "duly authorized" but where no payment requirement is mentioned. PMC asserts that charging a subscriber is only described in the patents as an "example." Dkt. 77 at 7 (citing '251 45:29-40). PMC also asserts that there are other examples in the specification where there is a payment required, but that the payment is not from the subscriber: "advertisers and others who pay for the transmission and performance of programming…." '251 2:21-24. PMC also asserts that other examples describe payment as not the only option:

> Moreover, this system must have the capacity to ensure that programming supplied for pay or for other conditional use is used only in accordance with those conditions. For example, subscriber station apparatus must display the commercials that are transmitted in transmissions that advertisers pay for.

'251 2:33-37.

PMC asserts that for all the different types of subscribers, the commonality is that they are all viewers of programming. PMC cites the language: "Thus each viewer – including the subscriber of the station of FIGS. 7 and 7F, said second subscriber, and said third subscriber." ('251 at 259:63-67) and the language "in the case of any programming that is outputted at any given output apparatus, thereby enabling a subscriber to view or hear or read" ('251 166:33-36; *See also* '251 201:16-20).

PMC asserts that the asserted claims say nothing about payment. PMC asserts that construing the term to require payment would exclude embodiments in the specification in which no payments occur. Dkt. 77 at 9.

Zynga

Zynga asserts that the claims, specification and prosecution history support its position. With regard to the claims, Zynga asserts that the claims include both "user" and "subscriber" ("subscriber specific data," "user specific data," "user specific subscriber datum," "subscriber data"). Dkt. 80 at 3 (citing numerous claims). Zynga asserts that PMC's construction of "subscriber" merely reduces to the same as "user." Zynga asserts its construction recognizes the differences between "user" and "subscriber." Dkt. 80 at 3.

Zynga asserts that the specification citations PMC relies on with regard to conventional broadcast television relate to a system where even broadcast television is subscription based:

> The prior art includes so-called "addressable" systems … Such systems enable broadcasters to turn off subscriber station decoder/decryptor apparatus of subscribers who do not pay their bills and turn them back on when the bills are paid.

'717 5:32-38. Zynga asserts that its construction does not require payment upfront, but rather merely an agreement to pay. Zynga asserts that PMC does not cite to any portion of the specification in which a subscriber has not so agreed. Dkt. 80 at 4.

Zynga also asserts that the Examiner understood the term to requirement payment citing the Examiner's statements:

> Zworykin has been cited to evidence the fact that it was notoriously well known in the TV distribution arts to have scrambled certain TV signals so to have prevented unauthorized reception by unauthorized viewers (i.e. those who have not paid for the programming)…
>
> In such situations it was known to have been desirable, if not necessary, to have scrambled the TV programming to prevent unauthorized use/reception by people who have not subscribed…

Dkt. 80 Ex. 5 at 72 ('251 Final rejection dated 4/28/04). Additionally Zynga cites to the Examiner statement that:

> a) At the time of applicant's alleged invention, it was known to have used conventional TV distribution networks to convey "premium" TV programming to users who subscribe to, and pay a fee for, the premium TV service;…'
>
> b) It is also noted that CATV distribution networks were inherently subscription based systems…Thus, CATV system typically included subscription fees to be paid by the subscribers for the "premium" CATV service.

Dkt. 80 Ex. 6 at 27-28 ('251 Advisory Action dated 11/24/04).

PMC's Reply

PMC asserts that Zynga limits "subscriber" to just one class of subscribers (paying subscribers), ignoring the specifications statement of "many different classes of subscribers." Dkt. 86 at 1. PMC asserts that examples of non-payers are the millions of viewers of the "Wall Street Week" program that are described as "subscribers." Dkt. 86 at 2 (citing '251 11:19-35). PMC asserts that Zynga's file history citations merely establish that one class of subscribers is paying subscribers. PMC asserts that the term "user" and "subscriber" is utilized interchangeably such as in the specification where it states "[f]or example, only at subscriber stations where user specific stock data is maintained…." Dkt 86 at 2 (quoting '717 231:4-9). PMC notes that the parties have agreed other terms may share a common meaning, for example the parties have agreed that "data" and "information" have the same meaning. Dkt. 86 at 2.

Analysis

Zynga has pointed to examples in the specification and file history in which a subscriber has paid for services. However, Zynga has not pointed to a disclaimer or disavowal in the specification in which a "subscriber" must be a "paying subscriber." In contrast, as noted in the specification, "many different classes of subscriber will exist with different information demands." '251 272:64-67. Further, there are examples describing television subscribers with no clear disclaimer that such television subscribers are limited to "premium TV service" paying

subscribers. '251 11:19-35, 209:60-67. In addition, the statement that "advertisers and others may pay for the transmission and performance of programming" ('251 2:22-24) further implies that the programming may be paid for by persons other than subscribers, thus indicative of the potential of free subscriptions. Viewing the intrinsic record as a whole there is not a disclaimer or disavowal limiting subscribers to paying subscribers.

PMC, however, attempts to merely equate the term "subscriber" with "user." PMC has not established that the two terms carry the same ordinary meaning and has not pointed to evidence in the intrinsic record establishing that the patentee disavowed the ordinary meaning of "subscriber." Though PMC may be correct that one may be a "free subscriber" or a "paid subscriber," PMC has not established that a mere user equates to a subscriber. The conventional meaning of "subscriber" means something more than a "user." Similarly, as used in the specification, for example, any and all television viewers are not described as subscribers, rather subscribers are described in association of those specially configured stations disclosed with reference for example to Figures 1, 3, and 7. At the hearing, PMC agreed that a subscriber is more than a mere user, but rather someone arranges to receive information such as for example through a request or agreement. Such an interpretation is in conformance with the claims and in conformance with the specification, which includes general television descriptions (as opposed to mandating "premium" television) and includes advertiser payment. The intrinsic record as a whole does not teach that payment is required to be a subscriber.

The Court construes **"subscriber"** to mean **"one who arranges to receive information."**

B. "video"[3] and "video image"[4]

PMC's Proposed Construction	Zynga's Proposed Construction
"Video": This term does not require construction. However, if a construction for this term is entered, it should be: "information that represents a visually perceivable presentation, such as graphics, images, or text" "Video image": This term does not require construction.	"Video": "a series of still images intended to be displayed in sequence to allow for the appearance of movement." "Video image": "still visual representation, which could include textual information, that is part of a series of still visual representations intended to be displayed in sequence to allow for the appearance of movement."

The primary dispute between the parties is whether "video" is limited to images that convey movement, and whether "video image" is a still image of the video.

PMC

PMC asserts that the patents generally describe audio information and video information and that "video" information is merely picture information quoting:

> Said output could be audio and/or video information out-putted to a monitor, 202M, and caused to be emitted as sound and/or displayed as picture information.

'251 258:15-18. PMC also notes that the patents refer to "the picture screen of the monitor 202M" and "to the video screen of TV monitor 202M." Dkt. 77 at 10 (quoting '251 252:53; 13:67). PMC also cites to the example of the graph shown in '251 Figure 1A. PMC asserts that this graph is described as formed from "digital bit information at the video RAM of the graphics card in a particular pattern" and "the information at video RAM at the end of these steps were to be transmitted alone to the video screen of a TV monitor." Dkt. 77 at 11 (quoting '251 13:36-50). PMC asserts that this graphic of the Figure 1A graph is stored in video RAM which demonstrates that "video" is broader than Zynga's construction. PMC also cites to examples in

[3] '251 Claims 17, 18, 19, 24 and 28.

[4] '251 Claims 17, 18, and 24.

which video refers to "binary video image information of several telephone numbers" and dollar amounts that are placed in bit locations of the "video RAM that produce video image information in the upper left hand of a video screen." Dkt. 77 at 11 (quoting '251 188:39-40, 250:25-29). PMC asserts that the claims do not require movement and video is used in the patents in the context of static pictures such as Figure 1A, telephone numbers and dollar amounts, and thus, Zynga's construction is improper.

Zynga

Zynga says that its construction does not require actual movement, only a series of images that allows for appearance of movement when viewed in series. Dkt. 80 at 6. Zynga asserts that thus the example of several telephone numbers is part of a series of images, which in sequence, allows for the appearance of movement. Dkt. 80 at 6. Zynga cites to the prosecution history in which it asserts the Board of Patent Appeals distinguished between "video" and other visually perceived information such as "graphics":

> Likewise, Bart teaches that a "color television receiver, for example, can be arranged to display either normal video information alone in a conventional manner, graphics information along [sic:alone] (e.g., 'video games' or alphanumeric data displays), or mixed video and graphics information (e.g., superimposed subtitles, weather, sports or road traffic information"…

Dkt. 80 Ex G at 73 (BPAI Decision dated 3/23/09).

Zynga asserts that the patents describe "video" (such as a television program) combined with a microprocessor generated visual display ("video image") that are displayed together. Zynga cites to the specification:

> Automatically, microcomputer, 205, clears video RAM; causes the background color of video RAM to a color such as black that is transparent when combined with transmitted video by the PC-MicroKey System; causes binary image information of '$1,071.32" to be placed at bit locations of video RAM that 50

> produce video image information in the upper left hand of a video screen when video RAM information is transmitted to said screen.

'717 at 250:44-52.

PMC's Reply

PMC asserts that the file history quotation supports its position because rather than distinguishing "video" and "graphics" the quotation describes "normal video" and "graphics information" is also video such as is "video games."

Analysis

The specification provides examples of video that are not limited to a series of still images to provide the appearance of movement. Thus for example video information may be "displayed as picture information." '251 258:15-18. As an example, the video described in the specification may include the graph shown in '251 Figure 1A. '251 Figure 1A, 13:36-50. Similarly, video image information may include the telephone numbers and dollar amounts displayed on the screen. '251 188:39-40, 250:25-29. Thus, as taught in the specification, not all video is intended to provide the appearance of movement. In the context of the claims, for example as with '251 Claim 17, such information may be the "locally generated video image" that is simultaneously displayed with the image from "the remote video source."

PMC's construction, however, is missing the context of the specification in which the video is capable of showing change or movement. Thus, not all video shows such change or movement, but as used in the specification there is a capability of such. At the hearing. the Court proposed a construction of "video" to mean "visual presentation that is capable of showing change or movement." Such a construction allows for graphics, such as described above with reference to the '251 specification, to be an image. At the hearing, PMC agreed to the Court's construction.

The Court construes **"video"** to mean **"visual presentation that is capable of showing change or movement."** The Court finds that no additional construction of "video image" is necessary. A video image may include a single graphic.

C. "processor"[5] and "processing"[6]

PMC's Proposed Construction	Zynga's Proposed Construction
These terms do not require construction.	"Processor": "any device capable of performing operations on data. This includes devices that operate by executing instructions as well as devices that operate by other means." "Processing": "performing operations on data or a signal. This includes operations done by executing instructions as well as operations done without executing instructions."

Zynga expresses concern that "processing" will be construed to be limited to executing instructions (as opposed to devices that are hardwired to process). In its Reply, PMC appears to agree that the terms are not limited to executing instructions (except to the extent any particular claim explicitly includes executing).

PMC

PMC asserts the terms are used more than 1,600 times in a wide variety of contexts in the patents. PMC provides an extensive list of the different types of "processing" in the specification and the claims in its brief (Dkt. 77 at 13). PMC asserts that a single construction that encompasses all uses would be impossible. PMC objects to Zynga's construction ("executing instructions" and "other means") as being potentially confusing because in some claims the claim language is explicitly limited to "executing instructions." Dkt. 77 at 14. PMC

[5] '251 Claims 17, 18, and 28; and '131 Claim 1.

[6] '251 Claims 17, 18, and 28; '131 Claim 1; '717 Claim 1; and '638 Claims 1, 6 and 11.

asserts that processing in the asserted claims is performed on data, control signals, video signals and information. PMC asserts that processors receive signals, deliver images, select data and execute instructions. Dkt. 77 at 14. PMC asserts that the claims in each case provide the necessary context and that no construction is needed. PMC also objects to Zynga's use of "operate." In its reply brief, PMC asserts that it is not limiting the terms to require computers that execute instructions. PMC asserts that terms are clear in the claim context and require no construction. Dkt. 86 at 3.

Zynga

Zynga asserts that it believes PMC's offer of no construction is an attempt to limit the terms narrowly to require computers that execute instructions. Zynga asserts that the terms should be construed more broadly to also cover devices not executing instructions, such as hardwired logic devices. Dkt. 80 at 8. Zynga asserts that its construction accurately includes devices, whether or not the devices execute program instructions as would be appropriate at the time of the patent filings. Zynga also points to claims that use both "processor" and "computer" as indicating that the words are not merely the same but have a presumption of different meanings. Dkt. 80 at 8. Zynga points to a number of passages in the specification describing hardwired devices processing. Dkt. 80 at 8 (citing '717 51:61-63, 76:12-14, 135:52-56). Zynga also points to the prosecution history in which PMC discussed prior art teletext decoders as processing. Dkt. 80 at 9 (citing Dkt. 80 Ex. 10 Substitute Appeal Brief at 63-65). Zynga asserts that extrinsic evidence also makes clear that processing does not require execution of instructions as done in computers. Dkt. 80 at 9, n. 12. Zynga asserts that its construction does not cause confusion for claims that are limited to executing instructions.

Analysis

Zynga's position is supported by the specification in that processing is not limited in the specification to executing program instructions. The Court finds that processing is not limited to executing instructions. However, the additional language sought by Defendants is unnecessary and may cause confusion. Furthermore, as noted in the briefing, PMC has agreed that the terms are not limited to executing instructions. As such, there is no longer a dispute as to this issue. At the hearing, the Court proposed a construction for processor: "any device capable of performing operations on data." The parties expressed agreement with the propsed construction. Defendants also agreed to the removal of "or signal" from the construction of "processing."

The Court construes **"processor"** to mean **"any device capable of performing operations on data"** and **"processing"** to mean **"performing operations on data."**

D. "complete programming,"[7] "programming comprising a computer program and a portion to be completed by accessing prestored data at said station of a particular kind,"[8] and "mass medium programming"[9]

PMC's Proposed Construction	Zynga's Proposed Construction
These terms do not require construction. However, if a construction for "programming" is entered, it should be: "the term 'programming' refers to everything that is transmitted electronically to entertain, instruct, or inform."	"Complete programming": "Programming that has been supplemented with every component necessary for it to be in its intended form for presentation. Programming is a predefined presentation that is simultaneously broadcast from a source to multiple recipients." "Programming comprising…": "Programming that must include computer software and an incomplete programming portion that could be completed by using factual information that is already stored at the station of a particular kind prior to being used to complete the incomplete programming portion. Programming is a predefined presentation that is simultaneously broadcast from a source to multiple recipients." "Mass medium programming": "predefined presentation that is simultaneously transmitted from a source to multiple recipients through a broadcast communication medium such as television or radio."

The parties' primary dispute relates to the basic meaning of programming. The parties also dispute the meaning of "complete" and "mass medium."

PMC

PMC asserts that Zynga adds three unsupported limitations to "programming": (1) a predefined presentation, (2) simultaneously broadcast, and (3) multiple recipients. PMC asserts that the patent provides a definition of programming:

> The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television,

[7] '131 Claim 1.

[8] '131 Claim 1.

[9] '638 Claims 2 and 12.

> radio, broadcast print, and computer programming as well as combined medium programming.

'131 6:29-34. PMC asserts this definition does not include the three limitations sought by Zynga but rather covers "everything" "transmitted electronically." PMC asserts that the patent also describes "programming" with regard to a single subscriber:

> The programming he views is his own – in the example, his own portfolio performance – and his programming is not viewed by any other subscriber nor is it available at the program originating studio.

'131 14:58-61. PMC asserts such "programming" cannot be "predefined" because it includes a user's portfolio performance.

As to "complete" programming, PMC asserts that the claim itself defines "complete programming" when in the first element it is stated "programming comprising…a portion to be completed by accessing prestored data." '131 Claim 1. PMC asserts that the claim states nothing regarding "every component necessary for it to be in its intended form for presentation." PMC asserts the word "complete" needs no construction. Dkt. 77 at 16.

As to "mass medium," PMC asserts the specification's usage of the term agrees with the plain and ordinary meaning of the term: "But television, radio, and broadcast print are only mass media. Program content is the same for every viewer." '131 at 1:41-42. PMC asserts that thus no construction is needed. Dkt. 77 at 17.

As to the phrase "programming comprising…", PMC asserts that Zynga is rewriting the phrase changing "program" to "software," "prestored" to "already stored," "accessing" to "using," and "data" to "information." PMC asserts these are needless changes and that other than these changes no terms remain for construction.

Zynga

Zynga asserts that PMC's construction reads passages of the specification out of context and would cover a signal from a keyboard or a mouse. Dkt. 80 at 11. Zynga cites to the reexamination of one of the parent applications in which the Examiner stated:

> The '414 patent broadly defines programming as 'everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming." [footnote omitted] The disclosed invention "has capacity for transmitting [to] standardized programming that is very simple for subscribers to play and understand." [footnote omitted] This definition does not explicitly exclude telephone systems. However, its absence is not surprising. The explicitly defined examples of television, radio, broadcast print, and computer programming are all types of broadcast media that are standardized and used to broadcast a predefined program from a course to many recipients such that the subscriber may play it. Further, in its most common usage, "programming" refers to content created for broadcast media. The Random House dictionary defines a program in several ways including "a radio or television performance or production" and programming as "a. the selection and scheduling of programs for a particular period, station, or network and b. the programs scheduled." In considering both the '414 patent disclosure and the commonly understood definition of the word, it is clear that "programming" can most broadly be defined as content designed for broadcast form one-to-many.

Dkt. 80 Ex. 20 at 3-4 (Notice of Intent to Issue Reexam. Cert.). Further Zynga cites to the Examiner's statement that telephone calls are not programming because calls are "unique point-to-point communications that are not preselected, prescheduled, or standardized" and not "used to broadcast a predefined program from a source to many recipients." Dkt. 80 Ex. 20 at 4 (Notice of Intent to Issue Reexam. Cert.). Zynga asserts that this conforms to the specification which mentions television, radio and broadcast print.

Zynga also asserts that the '717 specification 168:16-21 describes programming as content that has yet to be transmitted or has already been transmitted, consistent with its construction.

As to "complete," Zynga asserts its construction requires the programming to be truly complete in its intended form. Zynga asserts that PMC construes complete to mean just that a portion is complete. Zynga asserts that the claim language PMC cites to should be viewed in its entirety (without ellipsis): "programming comprising a computer program and a portion to be completed by accessing prestored data." Zynga asserts this makes clear that programming has two parts (a computer program) and a portion to be completed, not that just completing a portion renders a program complete. Dkt. 80 at 13. Zynga asserts that the claim then states that through the completion the viewer's station "is enabled to deliver complete programming." Zynga asserts that nowhere does the claim state that the programming is less than fully complete. Dkt. 80 at 13. Zynga also asserts that its construction is supported by extrinsic evidence of dictionary definitions of the word "complete."

As to the "programming comprises…" phrase, Zynga asserts that the term "prestored data" is a temporally relative term but that the claim leaves doubt that as to what it is relative to. Zynga asserts that the data should be stored, at the latest, prior to being used and that the specification supports such construction. Dkt. 80 at 13 (citing '717 199:1-6, 251:27-50).

As to "mass medium," Zynga asserts that PMC agrees in its brief (Dkt. 77 at 17) that the term requires every viewer to see the same content. Zynga asserts its construction refers to this concept and that it would be helpful for the jury.

PMC's Reply

PMC asserts that the Reexamination statement merely focused on "'programming' can most broadly be defined as content designed for broadcast from one-to-many." Dkt. 86 at 3-4 (citing Zynga Br. Dkt. 80 Ex. 20 at 3-4). PMC asserts that Zynga's construction goes well beyond this concept by including "simultaneously broadcast." PMC asserts the Examiner focused on the content of the programming while Zynga focuses on how the programming is transmitted. Dkt. 86 at 4. PMC asserts the issue before the Examiner was whether "programming" include a one-to-one transmission (telephone call) or was content designed for one-to-many transmission (television program). PMC asserts that as to the method of transmitting programming, the specification only requires that it be "electronically." Not only does Zynga add a "broadcast" limitation, it also adds "simultaneously," a term not used in the reexamination. PMC also points to an embodiment that allows transmission stations to transmit as "scheduled for delayed transmissions" so stations may "select and retransmit programming according to its own specific schedule." Dkt. 86 at 5 (quoting '717 176:10-15).

As to '131 Claim 1 and "complete," PMC assert that the claim states that programming is completed "by accessing prestored data."

Analysis

The specification provides a general broad definition of programming:

> The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming.

'131 6:29-34. As to the inclusion of "predefined," Zynga does not point to other portions of the specification which contradict the broad definition it contains such that all programming must be predefined. Further, as noted by PMC, programming may include the addition of a user's own

portfolio performance. '131 14:58-61. Such programming would inherently not be predefined. As to the Zynga's inclusion of "simultaneously broadcast from a source to multiple recipients," PMC points to portions of the specification which contemplate various transmissions schedules, thus further rebutting the assertion that all but simultaneous transmissions have been disavowed. '717 176:10-15. In addition, PMC is correct that the passages cited by Zynga focus more on the design of the content being for one-to-many transmission as opposed to how the programming is actually transmitted. At the hearing, both parties acknowledged agreed with the concept that the programming is designed for multiple recipients. In order to clarify this aspect of the term's meaning, the Court includes "at least a portion designed for multiple recipients" in its construction, in addition to the definition provided by the specification.

As to "complete," Zynga is correct that the claim language in question must be viewed in its entirety. The citation to claim 1 made by PMC does not support the position that "complete programming" references only completing a portion of the programming as the full phrase is: "programming comprising a computer program and a portion to be completed by accessing prestored data" and then at the end of the claim the claim recites "whereby said station of a particular kind is enabled to deliver complete programming." In the context of the claim, the "complete program" is not the portion referenced earlier in the claim, but rather the final result of the method contained in the "whereby" clause, which describes the delivered product. As the claim itself gives meaning to this term, no additional construction is needed.

As to the "programming comprising…" phrase, PMC has correctly noted that Zynga is merely replacing various words with little support or reasoning that is based upon the specification. With regard to the main dispute of such changes ("prestored"), Zynga replaces the term with "is already stored." However such additional language does not change or improve

upon the original claim language, and the clarity of the original phrase is most appropriate. Thus, the Court finds that having construed "programming" no additional construction is needed.

As to "mass medium," Zynga asserts that that the term requires every viewer to see the same content. However, Zynga's proposed construction goes well beyond such concept, and Zynga has not cited support mandated the limitations Zynga seeks.

The Court construes **"programming"** to mean **"everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming, at least a portion designed for multiple recipients."** The Court finds that no additional construction is necessary for "complete programming" as the term is given meaning by the remaining claim language. The Court construes **"mass medium programing"** to mean "**everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming, designed for multiple recipients."**

E. "control signal"[10] and "instruct signals"[11]

PMC's Proposed Construction	Zynga's Proposed Construction
These terms do not require construction.	"control signal": "an electrical impulse that, upon detection, triggers the receiving device to act in a particular manner." "instruct signal": "an 'instruct signal' is an electrical impulse that, upon detection, triggers the receiving device to act in accordance with instructions included in the electrical impulse."

PMC

PMC cites to arguments in the *EchoStar* order:

> In conclusion, the court agrees with PMC that attempting to construe this simple and straightforward phrase is more likely to confuse, not assist, the jury. As such, the court construes the term "control signal" and the associated term "signal which controls said receiver" to have their plain and ordinary meaning.

EchoStar at 42. PMC also cites to the *EchoStar* court's "instruct signal" comments:

> The court agrees with the special master's findings in the Atlanta litigation and, therefore, concludes that, in light of the explicit claim language defining the function of the instruction signal, the term "instruct signal which is effective to coordinate presentation" needs no additional construction.

EchoStar at 34. PMC asserts that the instruct signals similarly are defined in the asserted claims. PMC points to, for example, '638 Claim 1 which states "to cause at least a portion of a combined medium presentation to be outputted at an output device" and '638 Claim 6 states "effective to cause said subscriber station to compute second subscriber specific data by processing first subscriber specific data stored at said subscriber station and transfer said second subscriber specific data to said one or more remote stations."

[10] '251 Claims 19 and 24; '171 Claim 1; and '131 Claims 1, 4 and 9.

[11] '638 Claims 1, 2, 3, 6 and 11.

PMC asserts that an "electrical impulse" is too narrow, citing to '251 Figure 2I in which a signal is a sequence of binary information. PMC asserts that thus, impulse needs definition to state that it includes binary information. Dkt. 77 at 19.

Zynga

Zynga asserts that the dispute is whether the signals must themselves trigger action at the receiving device (Zynga's construction) or whether they may simply be a computer program that is passed to a receiving device and stored there for possible future use in event of a subsequent event. Dkt. 80 at 14. Zynga asserts that the specification draws a clear distinction between control/instruct signals and a computer program. Zynga asserts that the specification teaches that the control/instruct signals are a series of binary bits such as shown in Figure 2E. Dkt. 80 at 14-15 (citing '717 Figure 2E, 12:34-35, 22:31-34, 27:64-67; Dkt. 80 Ex. 8 Amendment at 34). Zynga asserts that control signals may be embedded in a program but that the program itself is not a control signal.

As to "impulse," Zynga asserts that this is the term that PMC used to construe "signal" in the *EchoStar* litigation. Dkt. 80 at 14, n. 18.

Zynga cites to portions of the specification that it contends establish the immediacy of control signals with descriptors in the specification such as "immediately," "interrupt," "at precise times," and "perform automatically." Dkt. 80 at 15-16. Zynga cites to portions of the specification which describe signals that function conditionally or have time-delays. Zynga asserts that such signals still immediately execute upon detection and start checking for an certain act or time. Dkt. 80 at 16.

Zynga asserts the patentee clearly knew how to claim a computer program when desired because the claims include "computer program." For example Zynga points to '131 Claim 1

which states "said control signal operative to cause said execution of said computer program" and '638 Claim 2 which states "instruct signals include one or more of a software module."

PMC Reply

PMC asserts that '638 Claim 2 states that instruct signals may be "one or more of a software module and a data module." PMC asserts that this establishes that the signal may be a module. Dkt. 86 at 6, n. 4. PMC asserts that "no construction" as found by the *EchoStar* court is proper, and that is prior proposed construction was more than just "impulse" ("a detectable physical quantity or impulse by which messages or information can be transmitted").

Analysis

Both parties point to portions of the specification in which the claimed signals may be a series of binary bits, such as, for example, the multi-bit signal word of Figure 2I. '251 29:8-20. Zynga has not pointed to description in the specification of "impulse," and the use of such term would likely need further construction to make clear that an impulse encompasses what is described in the specification. Though Zynga points to portions of the specification in which signals act immediately, Zynga has not pointed to any disclaimer mandating such signals to act immediately. The signal function conditions and time delays that Zynga acknowledges are taught in the specification further counsel against Zynga's construction.

The Court finds that **"control signal"** and **"instruct signals"** require no construction.

F. "remote data source," "remote video source," and "remote station(s)"[12]

PMC's Proposed Construction	Zynga's Proposed Construction
These terms do not require construction.	"Remote data source": "a supply of factual information that is physically located apart from the point of reference." "Remote video source": "a supply of video that is physically located apart from the point of reference." "Remote station": "a stationary device that is physically located apart from the point of reference."

The primary disputes between the parties are whether "data" is limited to factual information and whether a "station" must be stationary.

PMC

PMC asserts that Zynga's "physically located apart" language effective swaps "remote" for "apart." PMC asserts "remote" does not need construction. PMC objects to changing "data" to "factual information." PMC asserts that "factual" does not appear in the patents and there is no basis for restricting "data" to "factual data." PMC asserts that because Zynga provides mobile games, Zynga is attempting to require "stations" to be stationary. PMC asserts there is no support in the specification for such requirement.

Zynga

As to "factual," Zynga asserts that all three primary embodiments ("Wall Street Week," "Exotic Meals of India," and "Farm Plans of Europe") relate to factual information (stock prices, recipes, and farm plan data). Dkt. 80 at 17. Zynga asserts that all the specification relates to factual information and thus one of skill in the art would know that "data" is limited to factual information. Zynga cites to a dictionary that describes "data" as factual information. Dkt. 80 at 18, n. 22. At the hearing, however, Zynga agreed to remove "factual" from its construction.

[12] 251 Claims 17, 23, and 28; and '638 Claims 1, 3, 6 and 15.

With regard to "remote," Zynga asserts that its construction is needed to clarify to the jury that "remote" does not have to be thousands of feet or miles away. Dkt. 80 at 17. Zynga asserts that the '717 specification discuss a "remote keyboard" of a prior art reference (U.S. Patent No. 4,337,480) in which the "remote keyboard" is a remote control for a television. Dkt. 80 at 17. Zynga also cites to extrinsic evidence in which a remote devices is a separated device such as a CRT display. Dkt. 80 at 17, n. 20.

As to "stationary," Zynga asserts that the specification only refers to stations that are fixed and "mobile" is not found in the specification. Zynga asserts that one skilled in the art would thus understand "station" to be stationary. Zynga notes that stations described include "a home, an office, a theater, a hotel or any other station" ('717 201:56-57), all stationary stations.

PMC's Reply

As to "factual," PMC asserts that the claims make no distinction between fact and non-factual information. PMC asserts that the patent describes "entertainment" applications and thus includes more than just factual applications. Dkt. 86 at 6 (citing '717 at 2:1).

As to "stationary," PMC asserts that the specification cite noted by Zynga includes "or any other station." PMC asserts that Zynga has not provided support that "any other station" must be limited to fixed establishments. PMC notes that the Modern Dictionary of Electronics that Zynga cited for other terms does not include a "fixed" concept in its definition of "station." Dkt. 86 at 7. PMC also cites to intrinsic evidence prior art cited in the patents in suit in which "portable station" and "mobile station" are shown as known in the art. Dkt. 86 at 7.

Analysis

As to "factual," Zynga points to the examples of the specification that includes factual data but Zynga does not point to teachings in the specification that state that the usage of the

concepts disclosed are limited to factual information. Zynga has not pointed to any disavowal in the intrinsic record. In contrast, PMC has pointed to language that references "entertainment" uses which implies that more than factual information may be relevant. At the hearing Zynga agreed to drop "factual" so that dispute is now moot.

As to "station," though Zynga points to specification examples that one would assume would be stationary, once again Zynga has not pointed to disavowal of the ordinary scope of station that limits the term to stationary stations as opposed to including mobile stations. Further, PMC has noted that the specification explicitly recites "or any other station" in addition to the stationary examples. '717 201:56-57. PMC also notes that the prior art of record indicates that ,at the time of the invention, it was known that stations include "portable station" and "mobile station." As such, the Court rejects the "stationary" limitation.

With respect to "remote," the claims themselves provide guidance. Thus, for example, in context the remote video source is separate from the video apparatus in '251 claim 17 and the remote station is separate from the subscriber station in '639 claim 1 and 6.

The Court construes **"remote data source"** to mean **"a separate data source,"** construes **"remote video source"** to mean **"a separate video source"** and construes **"remote station(s)**" to mean **"separate station(s)."**

G. "locally generated image" and "locally generated video image"[13]

PMC's Proposed Construction	Zynga's Proposed Construction
These terms do not require construction. However, if a construction for "locally generated" is entered, it should be: "brought into existence at a particular location"	"A single, still, visual representation that is defined by a pattern (e.g., by pixels or vectors). The pattern is brought into existence locally. Combining multiple images for display does not constitute generating a new image."

The parties dispute the meaning of "video image" within the locally generated term similar to dispute over the term "video"/"video image." The remaining dispute focuses on whether combining multiple images generates a new image.

PMC

PMC asserts Zynga's construction is needlessly confusing as the term "generated" has an agreed construction of "brought into existence." PMC also asserts that Zynga's construction is markedly different than Zynga's construction for "video image." Dkt. 77 at 21. PMC also cites the Board of Patent Appeals statement that "the Examiner does not contents Appellants' definition that 'locally generated' means 'brought into existence at a particular location.' Thus, we adopt this definition." '251 Board Decision at 18 (Dkt. 77 Ex. 6).

PMC objects to the additional language added by Zynga with regard to "image" and "video image." PMC cites to its objections presented under the term "video image." As to "image," PMC asserts the term is clear and cites to the graph of '251 Figure 1C as an example of an "image" as the specification states "TV monitor, 202M, then displays the image shown in FIG. 1C which is the microcomputer generated graphic of the subscriber's own portfolio performance overlaid on the studio generated graphic." '251 14:11-14. PMC asserts that the image was thus generated and is an overlay of Figures 1A and 1B. Dkt. 77 at 22.

[13] '251 Claim 17.

Zynga

Zynga asserts there is a dispute as to (1) whether an image or video image is a still, visual representation defined by a pattern, and (2) whether combining multiple images constitutes generating a new image. As to the first concept Zynga cites the Board Decision:

> We agree with the Examiner that teletext systems produce 'locally generated image' because a local character generator converts digital teletext data into character images to be displayed on the television screen as a pattern of dots – the character image does not exist until it is generated at the receiver."

Dkt. 80 Ex. 9 at 19 ('251 BPAI Decision dated 3/23/09).

As to the second concept, Zynga asserts that the claims provide the appropriate context that is missed if the term is construed piecemeal. Zynga asserts that the claim describes a "video presentation" comprising two images – (a) a "locally generated image" generated by processing the remotely originated data and (b) an "image received from a remote video source." Zynga asserts that the claim next describes the "video presentation" shown by simultaneously displaying" both images. Zynga asserts that thus the term "image" is reserved for the component parts and "video presentation" is the combination and further asserts that Claim 18 is similar for "video image." Dkt. 80 at 20.

Zynga asserts that the appeal prosecution history further supports its position as the Board noted the difference between the "display" and the "images":

> However, the 'locally generated image' is the image created from data as it exists before it is displayed (since there is a subsequent step of display) and does not imply that the data from which the image is created is generated locally."

Dkt. 80 Ex. 9 at 19 ('251 BPAI Decision dated 3/23/09).

> Appellants explain how Figure 1C in the 'Wall Street Week' example shows a "coordinated display" (Req. Reh'g 8-11). "Appellants submit that the term, 'coordinated display,' is properly interpreted to mean a display where the images used in the display

> are displayed dependent on a defined relationship between the content of the images.' Req. Reh'g 12

Dkt. 80 Ex. 26 at 3 ('251 BPAI Decision on Reh'g dated 6/24/09). Zynga asserts that PMC's argument about Figure 1C is incorrect because although the specification refers to the printed Figure as an "image," the specification never describes it as being generated. Rather, Zynga asserts the specification describes the two component graphics as having been separately "generated" and then "overlaid." Dkt. 80 at 21.

PMC's Reply

PMC asserts that it is unclear how Zynga can argue that Figure 1A is generated while disagreeing that Figure 1C is generated. Further PMC points to the specification as describing such combinations as being generated. In particular, Zynga points to the "Wall Street Week" portfolio example as being called an example of "combined medium programming" and the patents later describe "the generating and combining of combined medium programming." '251 15:10-12

Analysis

The Court finds that the Zynga's proposed definition of "image" is needlessly wordy and confusing, and that there is not sufficient support from the intrinsic record mandating the inclusion of such language. The remaining dispute focuses on whether combining multiple images generates a new image. PMC has pointed to an embodiment of the specification with regard to Figure 1C in which multiple images are combined together to create another "image." '251 Figure 1C, 14:11-14. Whether the image was generated as just one image or generated by overlaying two images does not change the fact that another image is generated. This is still consistent with the Board Decision which distinguishes between the display of an image and the generation of the image to be displayed.

As to the reminder of the construction, both parties rely upon the agreed language for "generated." However PMC's construction does not include the "local" concept and conceivably PMC's "particular location" could be a remote location. In part to address this deficiency, athe Court proposed at the hearing that "locally generated image" means an "image brought into existence locally" and clarified that the term includes combining multiple images for display so long as the combined image is brought into existence locally (the Court also proposed a corresponding construction for "locally generated video image"). PMC's acknowledged that such constructions would be proper.

Accordingly, the Court construes **"locally generated image"** to mean **"image brought into existence locally"** and construes **"locally generated video image"** to mean **"video image brought into existence locally."**

H. "said information content and said benefit datum explain a benefit of acquiring said product or service specific to said subscriber"[14]

PMC's Proposed Construction	Zynga's Proposed Construction
This term does not require construction.	"The information content and the benefit datum are displayed to the subscriber, and together they give a reason as to how acquiring the product or service would benefit the particular subscriber. A general benefit of the product, not particular to the subscriber, is not sufficient."

The primary dispute between the parties is the meaning of "explain a benefit."

PMC

PMC asserts that Zynga merely parrots the claim except for the terms "explain" and "specific to," neither of which needs construction. PMC asserts that Zynga replaces "explain" with "are displayed … and together they give a reason." PMC asserts however that the claim

[14] '717 Claim 1.

only requires the explanation "at an output device." PMC asserts there is no reason to limit the "output device" to only a display, quoting '251 162:25-29 which describes "output apparatus that display or otherwise output programming…for example…speaker system, 263, and printer, 221." Dkt. 77 at 23. As for construing "specific," PMC asserts that if "specific" needs construction, then the terms Zynga uses ("particular" and "general") to replace "specific" also need construction.

Zynga

Zynga asserts that it should be clear that both the "information content" and "benefit datum" are used together to "explain the benefit." Dk.t 80 at 22. Zynga also asserts that "explain a benefit" requires giving a reason as to the benefit, not merely stating that there will be a benefit. Zynga asserts this is consistent with the ordinary meaning of "explain" and usage in the specification. Dkt. 80 at 22 (citing '717 3:9-14).

Zynga asserts that its construction clarifies that the benefit must be specific to the particular subscriber. Zynga asserts that this is consistent with the prosecution history in which the term in dispute was added during prosecution to overcome art by requiring the "benefit" to be specific to a subscriber. Dkt. 80 at 22 (citing Ex. 23 at 25, Amendment Dated 3/6/03). In addition, Zynga asserts that the Applicants stated during prosecution that the: "cost/benefit financial analysis (benefit datum) of the incremental benefit of acquiring and using a particular product or service (by comparison with …the farmer's existing product or service of like kind)." *Id.* at 25.

PMC's Reply

PMC asserts that the full specification cite provided by Zynga for "explain" demonstrates that explain is not limited to "explaining how." PMC quotes:

> None has any capacity to explain automatically why any given information might be of particular interest to any subscriber or why any subscriber might wish to select information that is not selected or how any subscriber might wish to change the way selected information is processed.

'717 3:9-14. PMC asserts that the quote provides three examples of explanations, but that the example "why any subscriber might wish to select information that is not selected" is excluded by Zynga's construction because merely stating the existence of the benefit would satisfy the second example. Dkt. 86 at 8.

Analysis

In addition to the basic dispute of "explain a benefit," Zynga proposes language that redrafts certain other elements of the claim. However, it is unclear that there is any dispute concerning those elements that warrant departing from the claim language. First, Zynga asserts that it should be clear that both the "information content" and "benefit datum" are used together to "explain the benefit." However, the claim does not state "together" but rather merely states "information content and said benefit datum explain a benefit." Having not provided support for requiring more than the claim language of "and," such modification of the claim scope is improper. Zynga also asserts that the claimed benefit must be specific to the particular subscriber and thus seeks to add "a general benefit of the product, not particular to the subscriber, is not sufficient." However, the claim language already includes the language "a benefit of acquiring said product or service specific to said subscriber." PMC does not appear to dispute that the benefit must be specific to the subscriber and thus the additional language sought by Zynga is unnecessary. In light of the claim language itself and the description in the specification, the Court finds that a general benefit only is not sufficient. Thus a general benefit of a product, not particular to the subscriber, is not alone sufficient.

As to "explain," the specification includes one explanation of a benefit that is "why any subscriber might wish to select information that is not selected." '717 3:9-14. PMC correctly points out that the explanation in such circumstances may merely be a statement as to the existence / description of the other benefit without any further explanation. As the specification provides a broad usage of "explain," Zynga's requirement "to give a reason" is improper.

Having resolved the issues presented, the Court finds that no additional construction is necessary for the term "said information content and said benefit data explain a benefit of acquiring said product or service specific to said subscriber."

I. "combined medium presentation includes (i) at least one of an image and a sound received at said subscriber station from a remote transmitter station and (ii) a portion of said second data"[15] and "combined medium presentation including (i) at least one of an image and a sound received at said subscriber station from a remote source and (ii) a portion of said second subscriber specific data"[16]

PMC's Proposed Construction	Zynga's Proposed Construction
These terms do not require construction.	"A display that results from combining content received through broadcast communication medium with content generated by a local computer. The display includes (i) an image or a sound received at said subscriber station from a transmitter station or source that is physically located apart from the subscriber station, and (ii) a portion of said second data or said second subscriber specific data."

The primary dispute between the parties is whether the combined medium presentation is limited to a broadcast medium.

PMC

PMC asserts that the claims at issue do not include the term "broadcast" but that Zynga is attempting to add such a concept. PMC points to dependent claim 4 which explicitly adds

[15] '638 Claim 1.

[16] '638 Claim 6.

television signal and "broadcast or cablecast" limitations. PMC notes that since claim 4 includes "or cablecast," even claim 4 is not limited to "broadcast."

PMC also objects to changing "presentation" to "display." PMC asserts that "presentation" is more appropriate because one of the items presented is "sound." PMC objects to Zynga changing "remote" to "physically located apart" for the same reason as discussed above with regard to "remote source." Dkt. 77 at 25. PMC also objects to attempts to write the two terms as one single construction because it may create confusion.

Zynga

Zynga asserts that "combined medium presentation" is a coined phrase that is defined in the specification as including broadcast content and locally generated content. Zynga points to two passages in the specification:

> Today great potential exists for combining the capacity of broadcast communications media to convey ideas with the capacity of computers to process and output user specific information. One such combination would provide a new radio based or broadcast print medium with the capacity for conveying general information to large audiences…with information of specific relevance to each particular user in the audience…(Hereinafter, the new media that result from such combinations are called "combined" media.)

'717 1:55-56.

> It is further the purpose of this invention to provide means and methods whereby a simplex broadcast transmission can cause periodic combining of relevant user specific information and conventional broadcast programming simultaneously at a plurality of subscriber stations, thereby integrating the broadcast information with each user's own information.

'717 6:62-7:1. Zynga asserts that every example in the specification of combined media is based on broadcast information (citing the "Wall Street Week," "Exotic Meals of India," and "Farm Plans of Europe" examples). Dkt. 80 at 23-34.

As to "at least one of an image and a sound," Zynga asserts that its use of "an image or a sound" is clearer. Zynga asserts that "remote" should be construed consistent with the "remote" terms discussed above.

PMC's Reply

PMC asserts that the passage at '717 1:55-65 cited by Zynga above supports its position as the "such combinations" references the earlier recited "one such combination." PMC asserts this is relevant because the "one such combination" does not emphasize a combination based on the source of the information but rather the types: "general information to large audiences" combined "with information of specific relevance to each particular user." Dkt. 86 at 9 (quoting 4:1:55-65. PMC asserts the immediate preceding portions of the specification at '717 1:39-47 make clear the emphasis of the distinction between content that "is the same for every viewer" versus "user specific information."

Analysis

The claims utilize the term "presentation" in the context of "cause at least a portion of a combined medium presentation to be…." As claimed it is clear that the presentation is more directed toward the content then the display. As such Zynga's use of "a display" would at best be confusing.

As to the inclusion of "broadcast," Zynga cites to the passages at '717 1:55-56 and 6:62-7:1 and the fact that the disclosed embodiments include broadcast communications. The passage at '717 1:55-56 which describes "'combined' media" provides more emphasis on the concepts of combining "general information for large audiences" with "specific relevance to each particular user" than the broadcast concept Zynga seeks to add. In context of claims which do not utilize the term broadcast and the specification description of the more general advantage of combining

general information with specific user information, PMC's position is more accurate. Defendants acknowledged at the hearing that the presentation is for general audiences (many). As such there does not appear to be a dispute regarding that issue. Moreover, the claim language surrounding "combined medium presentation" gives meaning to what is included in the presentation. Thus, the Court finds that no further construction is needed beyond the claim language itself.

The Court finds that the combined medium presentation terms in dispute do not need further construction.

J. "commercial"[17]

PMC's Proposed Construction	Zynga's Proposed Construction
This term does not require construction.	"an advertisement that is broadcast to multiple recipients simultaneously, such as through television or radio"

The parties dispute whether a commercial is limited to a broadcast to multiple recipients.

PMC

PMC asserts that "commercial" has an ordinary understood meaning and that Zynga is attempting to add a "broadcast" limitation into the claims. PMC asserts there is nothing in the claims that require a commercial to be delivered "to multiple recipients simultaneously." Dkt. 77 at 25-26.

Zynga

Zynga asserts that "commercial" carries a more specialized meaning then merely "advertisement." Zynga cites to an extrinsic evidence dictionary. Dkt. 80 at 24. Zynga points to the use of "commercial" in the specification to refer to commercials in the television program of

[17] '717 Claims 4, 5, 6, and 9.

the examples in the patent specification. Dkt. 80 at 24 (citing '717 285:1-23, 187:9-10, 193:42-43 and 246:42-45. Zynga asserts that "commercial" is consistently referenced in a broadcast context and thus should be so limited.

PMC's Reply

PMC asserts that the patent specification uses the terms "commercial" and "advertisement" interchangeable citing to "'local spot' advertisements" and "spot commercials" at '717 3:42 and 283:60-61 respectively. Dkt. 86 at 9.

Analysis

It is unclear what meaning PMC gives to the term commercial though it seems that PMC may be equating "commercial" to "advertising." Though in an ordinary meaning a commercial may be that a commercial is an advertisement, not every advertisement would ordinarily be called a commercial. As provided in the specification commercials are generally described in relation to the advertisements that one would see that interrupt the provision of content such as television content. '717 283:60-61, 285:1-23, 187:9-10, 193:42-43 and 246:42-45. That elsewhere the specification references such interruptions as "spot advertisement" ('717 3:42) does not render all advertisements a commercial.

The specification however describes commercial spots that may be selected based upon particular relevance to a particular user. For example, spot commercials of particular relevance for a particular farmer may be determined based information relevant to that farmer. '717 283:58-284:17. In such context, providing the commercial to that particular farmer is still described as a "commercial spot." *Id*. Thus, mandating a commercial to be "broadcast to multiple recipients simultaneously" runs counter to the specification. Having rejected Defendants inclusion of broadcast, no further construction is needed for the term "commercial."

K. "remotely originated data to serve as a basis for displaying said video presentation"[18]

PMC's Proposed Construction	Zynga's Proposed Construction
This term does not require construction.	"factual information, which is from a physical location apart from the point of reference, that is used to bring into existence display information that forms a part of the video presentation."

PMC

PMC asserts that data should not be limited to "factual data" as described above with regard to "remote data source." PMC objects to changing "to serve as a basis for displaying said video presentation" to "that is used to bring in existence display information that forms a part of the video presentation." PMC asserts that "to bring in existence" is the agreed construction of "generating," and is not relevant to "to serve as a basis for displaying." Dkt. 77 at 26. PMC also objects to adding "display information" into claim while at the same time removing the "displaying" concept from the claim. PMC asserts that all of these changes do not conform to the claim language and that Zynga is merely redrafting the claim.

Zynga

Zynga asserts that "to serve as a basis for displaying" is ambiguous. Zynga asserts that its construction explains the term in the context of Claim 17. Zynga asserts that the next claim element involves processing "said remotely originated data…to generate said locally generated image" and later in the claim "information content of said locally generated image" is displayed in the video presentation. Zynga asserts that in view of this progression, "basis for displaying" means that the remotely originated data is used to generate display information that forms part of the video presentation. Dkt. 80 at 25. Zynga asserts that "display information" provides context

[18] '251 Claim 17.

to the claimed "displaying." As discussed above, Zynga asserts the only data described in the patent is factual data.

Analysis

The dispute regarding "factual" has been resolved above. As to the rest of the dispute, the parties do not present a clear difference in the meaning of the proposed constructions. Rather, the dispute focuses on providing clarity for the jury. The Court finds that the Defendants' construction provides no additional clarity as compared to the original claim language. Accordingly, the Court finds that no further construction is necessary for "remotely originated data to serve as a basis for displaying said video presentation."

L. "receiving, at said audio receiver, audio which describes information displayed in said video presentation"[19]

PMC's Proposed Construction	**Zynga's Proposed Construction**
This term does not require construction.	"receiving, at said audio receiver, audible words that give an account of information displayed in the video presentation."

PMC

PMC objects to changing "audio which describes" into "audible words that give an account of." PMC asserts that "audio" is broader than "audio words" and that "describing" is broader than "giving an account of." Dkt. 77 at 27. PMC cites to uses of "audio" in the specification that are described in the context of "emitting [emitted in] sound" ('251 160:17-19, 283:24-28) and "theme music" / "the sound of said music" ('251 237:17-22). PMC asserts the claim language simply requires "describing" and is not limited to "giving an account." Dkt. 77 at 27.

[19] '251 Claim 17.

Zynga

Zynga asserts that the claim language requires the "audio" to "describe[] information displayed in said video presentation." Zynga asserts that this makes clear not just any audio will do, but only audible that is capable of describing. Dkt. 80 at 26. Zynga asserts the specification gives examples (such as with the "Wall Street Week" embodiment) in which the audio is the announcer's words. Dkt. 80 at 26 (citing '717 14:1-6 and similar examples for "Exotic Meals of India"). Zynga asserts that PMC's citations do not contradict its construction because audio words are emitted sounds and the theme music example is not relevant because it does not "describe" the video presentation. Dkt. 80 at 27. Zynga further cites to the use of "audio language information" and "describes aurally" as used in the "Farm Plans of Europe" example.

Zynga further cites to the prosecution history. Zynga cites to the '251 Appeal in which the Examiner noted that the audio component of a TV program "describes, in words, information" and the Board Decision noted that the claim was directed to the "Wall Street Week" scenario "where the host says, 'And here is what your portfolio did.'" Dkt. 80 at 28 (citing Ex. 6 at 35, Advisory Action Dated 11/24/04 and Ex. 9 at 81 BPAI Decision).

As to "describes" Zynga asserts that "give an account of" conforms to the claim context and a dictionary definition. Dkt. 80 at 28.

PMC's Reply

PMC asserts that although descriptions may be conveyed with words, there is no basis for limiting audio to words. PMC cites to the example of the stock ticker sound in the theme music of "Wall Street Week" as being descriptive. Dkt. 86 at 10. PMC also cites to the Board Decision statement that was not limited to words when the Board stated "that the audio portion

of a television program, often although not always, describes (at least indirectly) what is happening in the video." Dkt. 86 at 14 (quoting Dkt. 77 Ex. 6 at 81, Board Decision).

Analysis

Zynga correctly notes that the specification provides examples of audio that provides a description using words. However, the specification also includes references to audio as mere sound and "theme music." '251 160:17-19, 283:24-28, 237:17-22. Zynga has not pointed to language of disclaimer in the specification requiring that "audio which describes" be limited to words which describe. Similarly, the references Zynga provides to the Board Decision point out examples of using audio to describe with words, but does not include a disclaimer that limits the term to audio words. As PMC has noted, audio can provide a description without using words. Accordingly, the Court determines that no further construction is necessary for "receiving, at said audio receiver, audio which describes information displayed in said video presentation."

M. "said step of delivering is performed based on a schedule"[20]

PMC's Proposed Construction	**Zynga's Proposed Construction**
This term does not require construction.	"the step of delivering is performed according to a predetermined time or sequence."

The dispute between the parties is whether a "schedule" requires a "predetermined time or sequence."

PMC

PMC asserts that "schedule" is well understood and needs no construction. PMC objects to the inclusion of "predetermined" and "time or sequence." PMC asserts that all schedules do

[20] '717 Claim 7.

not require such limitations. PMC cites to examples in the patent in which schedules are not predetermined but can be computed in response to user data:

> Then automatically, under control of its particular program instruction set, each farmer's microcomputer, 205, computes and retains information of a particular schedule of spot commercials…Under control of the instructions of its particular set, by analyzing the budget information of its farmers crop planting plan, each microcomputer, 205, automatically identifies four commercial spots that are of a particular possible highest potential value to its farmer…Automatically, the microcomputer, 205, of each station inputs to the signal processor, 200, of its station particular schedule information of its four identified commercial spots.

'717 283:58-284:17. PMC asserts that the patents also disclose schedules based on order (rather than time or sequence:

> For example, four spot commercials – program units Q, Y, W and D – are loaded on 76 and 78…According to the schedule recorded at computer, 73, Q should play first on the cable channel modulated by cable channel modulator, 83; then subsequently Y and W should start to play simultaneously on the channels modulated by modulators, 83 and 87 respectively; then D should play on the channel modulated by modulator, 83, immediately after Y ends.

'717 171:35-45.

Zynga

Zynga asserts that the claim language necessarily requires that a schedule be established before it is used (thus predetermined) and that the specification describes two types of schedules, one based on time and the other on sequence. Zynga cites to time based schedule examples in the specification (citing to '717 169:4-18, 169:54-60, 171:32-56 and 174:11-18) and order based schedules ('717 172:50-55). Dkt. 80 at 29.

As to "predetermined," Zynga asserts that the claimed limitation "based on a schedule" would be meaningless if "schedule" includes spur of the moment decisions. Zynga asserts that

PMC's citation to the specification that states a computer may "compute and retain" information of a schedule reinforces that a schedule is predetermined before it is used. Dkt. 80 at 29 (citing '717 283:58-284:17).

PMC's Reply

PMC asserts that if all Zynga means by "predetermined" is that the schedule must exist before it is used, then there is no need to add such a requirement. However, PMC objects if Zynga's construction means that a schedule cannot be created in response to user specific data because such a proposal would be counter to the specification. Dkt. 86 at 10.

Analysis

PMC asserts that schedules which "order" should not be excluded by the Court's construction, but Zynga seems to describe its term "sequence" as being order related (Dkt. 80 at 29). At the hearing it became clear the parties do not have a fundamental disagreement with regard to this term. At the hearing, both parties acknowledged that a schedule may relate to a sequence or order. Further, it was agreed that predetermined means something is in existence before being used as opposed to being ad hoc. Given that the parties' dispute relate more to the meaning of the proposed constructions, rather than the term itself, and that the parties have expressed agreement as to those surrounding disputes, the Court finds that the term needs no further construction.

N. "peripheral device"[21]

PMC's Proposed Construction	Zynga's Proposed Construction
This term does not require construction.	"a device physically external to the basic computer."

PMC

PMC asserts that the "physically external" limitation is needlessly narrow as a printer, for example, does not lose its peripheral device status if it is integrated into a larger system. Dkt. 77 at 29. PMC cites to examples in the specification of devices described as "peripheral devices" including "peripheral memory unit," "peripheral disk drive," "modem" and "monitor." Dkt. 77 at 29 (citing '131 96:31-33, 249:24-29, 248:61-259:4). PMC asserts that none of these examples must be "physically external" and that some would typically not be "physically external" such as the disk drives of the "IBM PC MICRO COMPUTER" shown in Figure 8 and described at '131 10:63-64 as "a conventional microcomputer system with disk drives." Dkt. 77 at 30. PMC asserts that this usage is in conformance with the dictionary definition of "peripheral device" which describes a device separate from the CPU. Dkt. 77 at 30, n. 26. PMC also asserts that even though some devices were typically external at the time, that does not mean that the devices are "always" external.

Zynga

Zynga asserts that, at the time of the invention, peripheral devices were consistently known to be physically external:

> Peripheral equipment: "Equipment external to a basic unit. A tape unit, for example, is peripheral equipment to a computer." IEEE Standard Dictionary of Electrical & Electronic Terms (2d ed., 1977) (Dkt. 80 Ex. 16 at 481).

[21] '131 Claim 9.

> Peripheral Devices: "Various kinds of machines that operate in combination or conjunction with a computer but are not physically part of the computer." Charles Sippl & Roger Sippl, Computer Dictionary & Handbook (3d ed., 1980) (Dkt. 80 Ex. 19 at 382).
>
> Peripheral equipment: "Equipment that works in conjunction with a computer but is not part of the computer itself…" John Markus, Electronics Dictionary (4th ed., 1978) (Dkt. 80 Ex. 17 at 464).

Dkt. 80 at 30. Zynga asserts that at the time of the invention modems were in fact typically external to a computer. Dkt. 80 at 30. Zynga asserts that while some versions of modems or disk drives may be internal versions, the specification does not refer to such internal devices as "peripheral": "microcomputer, 205, has an installed modem" ('717 231:21). Zynga further asserts that the specification expressly refers to some devices as "peripheral" such as "computer peripheral MODEMs" ('717 162:44-46) indicating that modems by themselves are not inherently "peripheral" as would be asserted by PMC. Dkt. 80 at 30.

Analysis

The specification provides guidance that some devices may be provided as part of a computer and some devices may be external to a computer. Thus, for example, with regard to "disk drives" a microcomputer is described as "a conventional microcomputer system with disk drives." '131 10:63-64. However, elsewhere other disk drives are described as "peripheral disk drives" that are "Drive D." '131 249:28-29. PMC's interpretation of peripheral (separate from the CPU) would have all disk drives being peripheral, thus rendering the use of "peripheral" in the specification meaningless. The specification also refers to "peripheral MODEMS," again using "peripheral" to describe a device, descriptive language that would be superfluous with PMC's construction. '131 162:45-46. Similarly, the specification refers to "connecting computers to computer peripherals," again contradicting PMC's construction as peripherals are described as separate from the computer, not just the CPU. '131 4:38-39. If the meaning of

"peripheral" was merely separate from the CPU then at the time of the invention there would be no need to describe these various devices as a "peripheral." The specification also conforms to the extrinsic evidence as to use of the term as cited by Zynga. Therefore, the Court construes **"peripheral device"** to mean **"external device."**

CONCLUSION

The Court adopts the above constructions. The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

SIGNED this 28th day of August, 2013.

ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE