

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC
Petitioner

v.

PERSONALIZED MEDIA COMMUNICATIONS, LLC
Patent Owner

Case No. IPR2020-00723
U.S. Patent No. 7,747,217

**PATENT OWNER PERSONALIZED MEDIA
COMMUNICATIONS, LLC'S PRELIMINARY RESPONSE TO PETITION
PURSUANT TO 37 C.F.R. § 42.107**

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I. INTRODUCTION

The Board should not institute trial because of numerous substantive and procedural deficiencies plaguing the Petition.

First, the Board should deny institution pursuant to 35 U.S.C. § 314 in view of the imminent District Court trial between the Patent Owner and the Petitioner with respect to the validity of this patent that will commence on October 19, 2020—less than four months from the date this response was submitted. If instituted, the trial here, in fall of 2021 will focus on the same references and arguments as the ones that will have been tried in the District Court a year before.

Second, this Patent has gone through a thorough prosecution including five office actions and appeal, where the Board considered a “multiplicity of rejections.” This Petition presents the same (or at least cumulative) art and arguments that the Office has previously considered without pointing to any errors in allowing the Patent, which makes denying institution under 35 U.S.C. § 325 proper.

Third, both grounds on which Petition challenges the claims are improper because it relies on non-prior art references.

Fourth, Patent Owner identifies numerous substantive deficiencies with the Petition, such as incorrect constructions applied by the Petitioner and the failure of the cited references to disclose, teach, or suggest multiple claim elements.

For brevity, this Preliminary Response focuses on independent claims 1, 11, 16, and 20 because the above-identified deficiencies would also apply to dependent claims.

II. IMMINENT DISTRICT COURT TRIAL WARRANTS NON-INSTITUTION UNDER 35 U.S.C. § 314

Trial between Petitioner and Patent Owner in the district court action involving the '217 Patent ("Litigation")¹ is scheduled for October 19, 2020—less than four months from the date of this Preliminary Response. *PMC v. Google* Litigation Scheduling Order, Ex. 2001. Yet, Petitioner waited until the end of the statutory period to file the Petition on grounds of which it was aware for at least six months, when it raised them in the Litigation in September 2019. *PMC v. Google* Litigation, Notice of Compliance, Ex. 2017. Even after filing the Petition, Petitioner has not requested a stay of the Litigation. As explained in detail below, in view of recent precedential guidance, this is precisely the circumstance in which the Board should deny institution of this proceeding.

Under Section 314(a), the Board "is permitted, but never compelled, to institute an IPR proceeding." *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356,

¹ *Personalized Media Communications, LLC v. Google LLC*, 2:19-cv-00090-JRG (E.D. Tex. Mar. 21, 2019).

1367 (Fed. Cir. 2016); *see also* 35 U.S.C. § 314(a). The Board may exercise its discretion under § 314(a) to deny institution of an *inter partes* review when the parties have a parallel district court proceeding scheduled to finish before the Board's deadline to issue a final written decision in an instituted proceeding.

Apple, Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 3 (PTAB Mar. 20, 2020) (precedential, designated May 5, 2020); *NHK Spring Co. v. Intri-Plex Techs. Inc.*, IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (precedential, designated May 7, 2019); *Intel Corp. v. VLSI Tech. LLC*, IPR2019-01192, Paper 15 at 11 (PTAB Jan. 9, 2020) (denying institution "to minimize the duplication of work by two tribunals to resolve the same issue.").

Under its precedential guidance, the Board considers six factors in determining whether "to deny institution in view of an earlier trial date in the parallel proceeding":

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;

5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board's exercise of discretion, including the merits.

Apple, IPR2020-00019, Paper 11 at 5-6 (PTAB Mar. 20, 2020). As discussed below, all six of the above factors weigh heavily in favor of denying institution in view of the status of the parallel Litigation.

A. Whether A Stay Exists Or Is Likely To Be Granted If A Proceeding Is Instituted

Institution of an *inter partes* review while a parallel district court proceeding is “nearing its final stages” would be inconsistent with “an objective of the AIA . . . to provide an effective and efficient alternative to district court litigation.” *General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 16-17 (PTAB Sept. 6, 2017).

This factor weighs in favor of denying institution because the Litigation is not stayed and is not likely to be stayed. At the time of filing this Preliminary Response, the parties have exchanged opening and rebuttal expert reports and the case is scheduled for trial in October, four months from now. The Court has not stayed the Litigation and Google has not even filed a motion seeking stay.

Even if Google were to file a motion to stay, the Court where the Litigation is pending has repeatedly denied stays in similar circumstances. *See Ramot at Tel*

Aviv Univ. Ltd. v. Cisco Sys., Inc., No. 2:19-CV-00225-JRG, Document 54 (E.D. Tex. Feb. 4, 2020) Ex. 2019 (denying stay pending *inter partes* review because “[i]t is the Court’s established practice to consider that motions to stay pending IPR proceedings that have not been instituted are inherently premature”); *Uniloc 2017 LLC v. Samsung Electronics America, Inc.*, 2020 U.S. Dist. LEXIS 50354, *12, C.A. No. 2:19-cv-00259-JRG-RSP, Dkt. No. 55 at 8-9 (E.D. Tex. Mar. 24, 2020) (denying stay after considering, among other factors, “(1) whether discovery is complete and whether a trial date has been set; and (2) whether the movant has unreasonably delayed filing its IPR petition and motion to stay”); *KIPB LLC v. Samsung Electronics Co., LTD.*, 2019 U.S. Dist. LEXIS 200902, C.A. No. 2:19-cv-00056-JRG-RSP, Dkt. No. 55 at 7 (E.D. Tex. Nov. 20, 2019) (denying stay); *KAIST IP US LLC v. Samsung Electronics Co., LTD.*, 2020 U.S. Dist. LEXIS 26609, C.A. No. 2:16-CV-01314-JRG, Dkt. No. 676 at 6 (E.D. Tex. Feb. 13, 2020) (denying stay).

The factual and procedural circumstances of the Litigation are substantially similar, and in many aspects identical, to the cases where the forum Court has denied motions to stay. Google waited until the last possible moment to file its Petition. Fact discovery is complete and expert discovery is about to conclude. *PMC v. Google* Litigation Scheduling Order, Ex. 2001. Based on the above facts and case law, the Court is highly unlikely to stay the Litigation.

B. Proximity Of The Court's Trial Date To The Board's Projected Statutory Deadline

“If the court's trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution under *NHK*.” *Apple*, IPR2020-00019, Paper 11 at 9 (PTAB Mar. 20, 2020).

This factor weighs heavily in favor of denying institution. Trial is scheduled to commence on October 19, 2020 (Ex. 2001), less than four months away from the date of this Preliminary Response, less than one month away from the deadline for the Board's institution decision, and roughly one year before the projected statutory deadline for the Board's final written decision. *Cf. NHK*, IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (institution denied due to district court trial scheduled six months from the date of the Board's institution decision); *Mylan Pharma. Inc. v. Bayer Intellectual Prop. GmbH*, No. IPR2018-01143, Paper 13 at 13-14 (PTAB May 24, 2018) (four months); *E-One Inc. v. Oshkosh Corp.*, No. IPR2019-00161, Paper 16 at 7 (PTAB May 15, 2019) (eleven months).

C. Investment In The Parallel Proceeding By The Court And Parties

“[I]f, at the time of the institution decision, the district court has issued substantive orders related to the patent at issue in the petition, this fact favors denial.” *Apple*, IPR2020-00019, Paper 11 at 9-10 (PTAB Mar. 20, 2020).

Specifically, “district court claim construction orders may indicate that the court

and parties have invested sufficient time in the parallel proceeding to favor denial.”

Id. at 10.

The Court has already reviewed all the briefings related to claim construction, held a *Markman* hearing, and issued a 94-page claim construction order, Ex. 1026. Such a thorough review of the Patent, file history, and extrinsic evidence indicates a substantial investment of the Court's resources into the Litigation. *See Next Caller, Inc. v. TRUSTID, Inc.*, IPR2019-00963, Paper 8 at 13 (PTAB Oct. 28, 2019) (district court's issuance of a claim construction order and substantial investment of resources considering invalidity favoring denial); *E-One*, No. IPR2019-00161, Paper 16 at 6-9 (PTAB May 15, 2019) (district court's issuance of a claim construction order favoring denial); *Thermo Fisher Scientific, Inc. v. Regents of the Univ. of Cal.*, IPR2018-01370, Paper 11 at 26 (PTAB Feb. 7, 2019) (same).

Further, in the Litigation, expert discovery will close on July 8, 2020—two weeks from the filing of this preliminary response—and significantly closer than expert discovery that was scheduled to close two months from the decision denying institution in *Cisco Systems, Inc. v. Ramot at Tel Aviv Univ. Ltd.*, IPR2020-00123, Paper 14 (PTAB May 15, 2020). By the time of the institution decision, the Court will have also considered motions for summary judgment and *Daubert* motions (both due July 8, 2020) and Motions *in Limine* (due August 19,

2020), yet another significant investment of the Court's resources. *See* Litigation Scheduling Order, Ex. 2001 at 2-3.

Patent Owner has also expended significant resources in prosecuting this Litigation. With expert discovery scheduled to conclude on July 8, 2020, Patent Owner had retained experts to review source code, engaged in document discovery, took and defended numerous depositions, and submitted affirmative and rebuttal expert reports, including expert reports dealing with references cited by the Petition. *Cf. NHK Spring*, No. IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (end of expert discovery less than two months away weighed in favor of denial).

Further, as discussed above, Petitioner waited until the last moment to file the Petition and failed to seek a stay of the Litigation even after filing the Petition. This indicates that Petitioner expects to go through with the trial causing Patent Owner additional pre-trial and trial-related expenses. Such tactics by Petitioner favor denial of institution. *Apple*, IPR2020-00019, Paper 11 at 11-12 (PTAB Mar. 20, 2020) (failure to file the petition expeditiously and inability to explain the delay in filing favored denial); *Next Caller v. TRUSTID, Inc.*, IPR2019-00961, Paper 10 at 16 (PTAB Oct. 16, 2019) (weighing the petitioner's unexplained delay in filing the petition in favor of denial of the petition).

D. Overlap Between Issues Raised In The Petition And In The Parallel Proceeding

“[I]f the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial.” *Apple*, IPR2020-00019, Paper 11 at 12 (PTAB Mar. 20, 2020).

The Petition includes the same primary reference relied on by Petitioner in the Litigation, and also raises the same arguments advanced by the Petitioner in the Litigation, including the same secondary reference and obviousness arguments. Petitioner's invalidity contentions and invalidity report in the district court proceeding and the Petition both assert *Campbell* in combination with *Millar* against all claims. And Petitioner's invalidity contentions in the district court proceeding and Petition both assert *Campbell* in view of *Millar* and *Thonnart* as to claims 11, 12, and 16-18, the exact same grounds raised in this Petition. In the invalidity report, Petitioner did not add *Thonnart* to the *Campbell-Millar* combination, but it did use *Thonnart* for the supposed disclosure of the same elements in another combination.

Prior Art Included In Invalidity Contentions	Prior Art Included In Invalidity Report	Prior Art In Petition
<i>Campbell</i> anticipates and/or renders obvious the asserted claims of U.S. Patent No. 7,747,217 (“the ’217	<i>Obviousness of All Asserted Claims Based on Campbell and Millar.</i>	<i>Ground 1: Campbell</i> in view of <i>Millar</i> renders obvious claims 1-3, 7-9, 11, 12, 16-18, and 20-22 under 35 U.S.C. § 103

patent"). . . . in combination with either (1) the knowledge of one of ordinary skill in the art; or (2) the references listed below:: <ul style="list-style-type: none">• GB 1,370,535 ("Millar")• U.S. Patent No. 4,413,281 ("Thonnart")		
	<i>Obviousness of Asserted Claims 11, 12, and 16-18 Based on Millar and Keiser or Block In Further View of Thonnart</i>	<i>Ground 2: Campbell in view of Millar and Thonnart renders obvious claims 11, 12, and 16-18 under 35 U.S.C. § 103</i>

PMC v. Google Invalidity Contentions (relevant portion) Ex. 2002 at 1. PMC v. Google Expert Invalidity Report, Ex. 2016 at 2-4; and Petition at 3.

Further, Petitioner's challenge to dependent claims 7 and 8 is a hollow attempt to make the Petition appear different than the validity issues before the district court. Although PMC disagrees that the cited art can invalidate these claims, for administrative ease, and to streamline the proceedings, PMC has disclaimed claims 7 and 8. *See* Disclaimer in U.S. Patent No. 7,747,217 under 37 CFR 1.321(a), Ex. 2018. Accordingly, the claims at issue in this proceeding and the claims challenged by Petitioner in the District Court are *identical*. Petitioner also "asserts the same prior art and arguments" in both proceedings and both the Board and the District Court are "analyz[ing] the same issues." *NHK Spring*, No. IPR2018-00752, Paper 8 at 20 (Sept. 12, 2018).

This factor weighs in favor of denying institution because of the significant overlap between prior art, arguments, and issues raised in the Litigation and Petition.

E. Whether The Petitioner And The Defendant In The Parallel Proceeding Are The Same Party

Google LLC is both Petitioner and the defendant in the Litigation.

Accordingly, this factor weighs in favor if denying institution.

F. Other Circumstances That Impact The Board's Exercise Of Discretion, Including The Merits

“[I]f the merits of the grounds raised in the petition are a close[] call, then that fact has favored denying institution when other factors favoring denial are present.” *Apple*, IPR2020-00019, Paper 11 at 15 (PTAB Mar. 20, 2020). There are numerous weaknesses on the merits of the grounds in the Petition as shown in Section VIII below. *see E-One v. Oshkosh Corp.*, IPR2019-00162, Paper 16 at 13-20 (PTAB June 5, 2019) (weakness on the merits weighed heavily in favor of denying institution).

* * *

The *Apple* factors, each individually and in combination, weigh heavily in favor of the Board exercising its discretion to deny institution under § 314(a).

III. THE '217 PATENT

Claims 1, 11, 16, and 20 of the '217 Patent are directed to methods for

coordinating and outputting multimedia presentations. The claims are best understood by reference to the “Wall Street Week” example that illustrates the multimedia presentation. Weaver Decl., Ex. 2013 ¶ 41.

The microcomputer at the receiver station is programmed with the number of shares of each stock in the user's portfolio. Weaver Decl., Ex. 2013 ¶ 42; '217 Patent, Ex. 1001 at 11:44-63. The receiver station is further programmed to obtain relevant prices at the close of each business day. *Id.* By collecting the daily closing stock prices, the microcomputer has the base information needed to calculate the value of the user's portfolio on a daily basis. Weaver Decl., Ex. 2013 ¶ 42; '217 Patent, Ex. 1001 at 13:29-49.

At the program-originating television station a series of control instructions are generated and embedded sequentially in digital form on lines of the vertical interval of the television signal, and transmitted. Weaver Decl., Ex. 2013 ¶ 44; '217 Patent Ex. 1001 at 12:6-12. The combined medium “Wall Street Week” example is illustrated by Figures 1A, 1B, and 1C reproduced below.

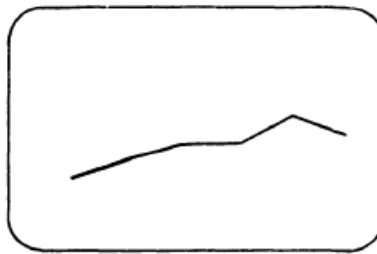


FIG. 1A

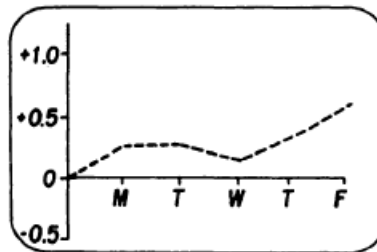


FIG. 1B

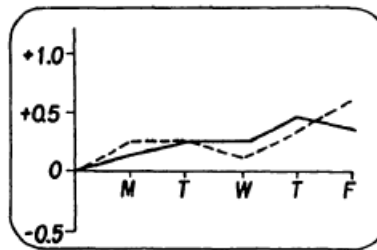


FIG. 1C

The “Wall Street Week” television program is transmitted with embedded information and instruction signals. Under control of the program instruction set, the microcomputer calculates the performance of the subscriber’s stock portfolio and constructs a graphic image of that performance as shown in Figure 1A. Id. ¶ 47; ’217 Patent, Ex. 1001 at 13:29-34. The microcomputer is programmed to hold the overlay graphic shown in Fig. 1A until commanded to turn the graphic on.

Weaver Decl., Ex. 2013 ¶ 47; ’217 Patent, Ex. 1001 at 13:41-49.

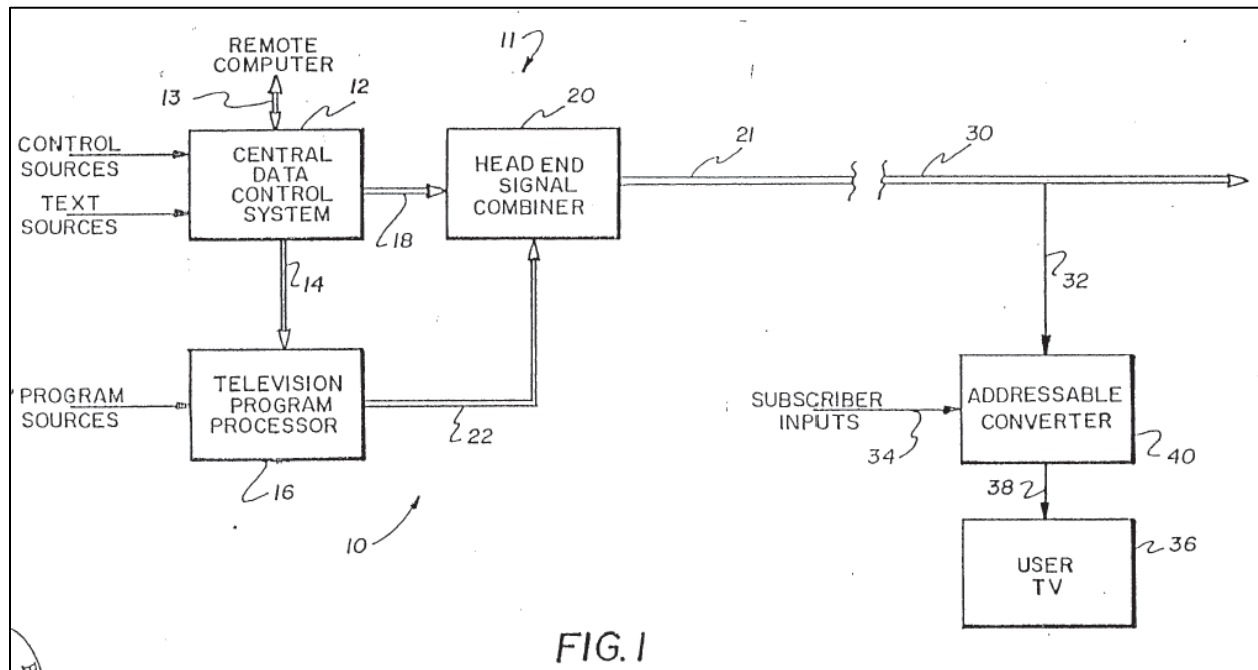
A “GRAPHICS ON” command causes the microcomputer to combine the Fig. 1A information with the Fig. 1B information transmitted by the studio and present the combined information to the monitor at the appropriate time in the “Wall Street Week” television program as shown in Fig. 1C. Weaver Decl., Ex. 2013 ¶ 48; ’217 Patent, Ex. 1001 at 22:39-41. A “GRAPHICS OFF” command causes the computer to cease combining and transmit only the received composite video transmission to the monitor. Weaver Decl., Ex. 2013 ¶ 48; ’217 Patent, Ex. 1001 at 46:47-55 and 69:26-35. The information provided by Fig. 1A is given significance by the coordinated overlay with the axes and broad market index graph of Fig. 1B. Weaver Decl., Ex. 2013 ¶ 48; ’217 Patent, Ex. 1001 at 14:4-20. Only after the overlay of Fig. 1A on Fig. 1B, resulting in Fig. 1C, can the viewer know that their stock portfolio performed better, worse, or the same as the general market on specific days of the prior week. Weaver Decl., Ex. 2013 ¶ 48.

IV. PRIOR ART CITED IN THE PETITION

A. Campbell

WO 81/02961 to Campbell et al. (“*Campbell*”) “relates to a cable television system having a multiple-function addressable converter and including data transmission in video format during the vertical interval of the video field or describes a cable television system.” *Campbell*, Ex. 1014 at 1:8-11. FIG. 1 of *Campbell* “shows a simplified block diagram of a one-way cable television system

10 in accordance with [Campbell's] invention.” *Id.* at 6:10-11.



Campbell, Ex. 1014 at p. 51.

As illustrated, the cable television system 10 includes a head end station 11 (which includes a central data control system 12, a television program processor 16, and a head end signal combiner 20) in communication with an addressable converter 40, which is itself in communication with a television set 36. *Id.* at 6:30-35.

One aspect of *Campbell's* invention is that its head end station “efficiently transmit[s] data signals in a video format during the vertical interval (VI) of each

television program channel.”² *Campbell*, Ex. 1014 at 3:31-32. In particular, “formatted data ... is incorporated into the vertical blanking intervals of video signals generated by a variety of television program sources.” *Id.* at 6:16-20. “This VI data not only provides control data for an intelligent converter unit, but also provides a substantial amount of textual data per channel for use either to provide additional data to supplement a channel television program or as a separate all textual and graphic channel.” *Id.* at 3:32-36. The supplementation of a television program is not superimposition of text/graphics over television video. Weaver Decl., Ex. 2013 ¶ 53. Rather it is a provision, on a supplemental channel, of text/graphics information pertinent to television programs presented over the television program channel. *Id.*

The text information of some complementary text channels may also be formatted to supplement the television programs on its complementary program channel. For example, the textual material may amplify various- new stories, shopping advertisements and other programming briefly presented over the television program channel.

² The terms “vertical interval” (VI) “vertical blanking interval” (VBI) and “vertical retrace interval” are commonly used. *See* Reader Decl., Ex. 1004 at 17, n. 1.

Campbell, Ex. 1014 at 26:2-7.

Petitioner mischaracterizes the teachings of *Campbell* when in Petition at page 9 it states “Characters and graphics are combined with additional video from the video descrambler, and that combined output displayed at the user’s television.”. Weaver Decl., Ex. 2013 ¶ 54. *Campbell* discloses the structure (video switches in text/graphics generator 118) that “are used to bypass the text/graphics generator with the channel video.”

The text/graphics generator 130 provides display characters and graphic symbols that have been transmitted on the vertical interval. The converter control logic 104 directs screen control data on data link 124 to a display memory 130 which in turn sends the formatted display characters along data link 132 to the text/graphics generator 118 for display.

The text/graphics generator 118 includes a plurality of video switches which are used to bypass the text/graphics generator with the channel video.

Campbell, Ex. 1014 at 14:1-6. Reader Decl., Ex. 1004 at 26. The text/graphics that *Campbell*’s head end station may send to the receiver is not superimposed on the video signal. Weaver Decl., Ex. 2013 ¶ 55. *Campbell*’s receiver displays either text/graphics or the channel video. *Id.* If the channel video is intended to be displayed, the text/graphics is bypassed. *Campbell* lacks any disclosure of the

combined channel video with text/graphics. *Id.*

This is in contrast with another feature where *Campbell* actually discloses superimposition of other information on the channel video—channel number overlay.

Optionally the video switches also permit the channel number display to be superimposed on the video signal of the channel which is being presented.

Campbell, Ex. 1014 at 14:9-11. The channel number that *Campbell* superimposes is the one selected by the user on the remote control, which does not arrive in the VBI. Weaver Decl., Ex. 2013 ¶ 57.

B. Millar

GB Patent No. 1,370,535 to Millar et al. ("*Millar*") discloses the transmission and use of alphanumeric data inserted in the vertical blanking interval ("VBI") of a television transmission. Reader Decl., Ex. 1004, illustrates this concept with a following figure.

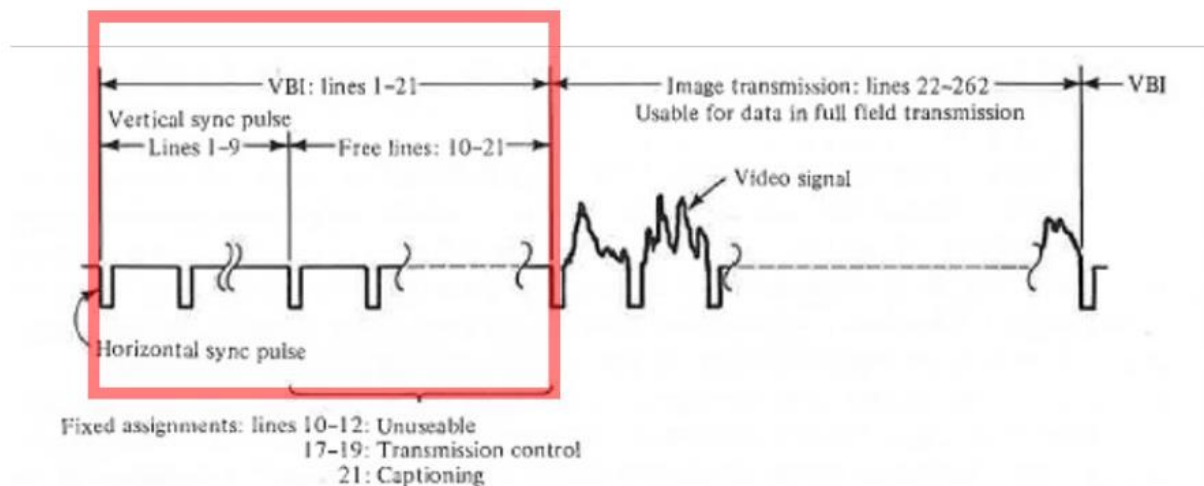


Figure 4.6 Simplified timing diagram of an NTSC field. VBI lines 13–16 and 20 are potentially available for data transmission (data lines).

Reader Decl., Ex. 1004 ¶ 35. In the above Figure, “VBI” stands for vertical blanking interval, a period when no television content is transmitted, and *Millar* and other teletext systems use VBI to transmit digital information, such as text or captions. Weaver Decl., Ex. 2013 ¶ 63. Critical to the Petition is that the Petition considers information transmitted in the VBI to be one medium, while the information transmitted in video transmission portion to be another medium. *Id.*

Millar discloses two alternatives for presenting this alphanumeric data to the viewer: (1) the overlay of a one-line caption over the television video for deaf viewers, for example; and (2) full-screen teletext pages displayed by themselves.

... all of the possibilities envisaged above are readily catered for and the embodiments described below will demonstrate how the system can handle either the simple addition of single line subtitles to pictures or the

transmission of individually selectable complete pages of
information.

Weaver Decl., Ex. 2013 ¶ 64; *Millar*, Ex. 1006 at 1:59-66 (emphasis added).

Millar discusses text pages having 768 characters in 24 rows of 32 characters (*see, e.g., Millar*, Ex. 1006 at 3:41-71). Such amount of textual information takes the entire screen and is not intended to be overlaid with the television program video.

Weaver Decl., Ex. 2013 ¶ 65.

Millar discloses three different organisations to encode these full-screen pages. *Id.* ¶ 66; *Millar*, Ex. 1006 at 3:41-71. Moreover, *Millar* envisions the receiver receiving more alphanumeric information than it can store. To this end, *Millar* discloses two ways of selecting pages for storage: one based on timing and another based on codes associated with lines or characters that are matched by the page selector at the receiver. Weaver Decl., Ex. 2013 ¶ 66; *Millar*, Ex. 1006 at 4:24-62, page selector 55 in Fig. 2, page selector 58 in Fig. 3.

On the other hand, *Millar* discusses the embodiment “intended to display a line of 32 characters, e.g. for sub-titling pictures only for deaf viewers whose receivers are appropriately equipped.” *Millar*, Ex. 1006 at 4:79-82. In this embodiment, the 32 characters transmitted in the VBI are *timed* to be overlaid with the corresponding video picture. Weaver Decl., Ex. 2013 ¶ 67; *Millar*, Ex. 1006 at 4:77-5:122 (“When characters are being received they are timed into the correct

position in the registers 38 during the 14th line by pulses provided by a comparator 41”).

Petitioner overlooks the distinction between these two types of alphanumeric information (one-line v. full screen) and point to the disclosure related to processing of the full-screen pages that is inapplicable to the one-line caption implementation. Weaver Decl., Ex. 2013 ¶ 68.

C. Thonnart

U.S. Patent No. 4,413,281 to Thonnart (“*Thonnart*”) discloses “a process for the transmission of information over television networks wherein certain information is encoded in digital form and transmitted by supplementing and/or replacing the information forming the conventional program.” Weaver Decl., Ex. 2013 ¶ 69, *Thonnart*, Ex. 1010 Abstract. “The information transmitted in digital form has other identifying material and is transmitted generally synchronously with the corresponding information in analog form.” *Id.* Petitioner introduces Ground 2 in general, and *Thonnart* in particular, “. . . if the Board finds that page information (including the ‘character code’ in *Millar*) fails to identify the content of a second medium.” Petition at p. 69. While *Thonnart* discloses “identifying information,” as discussed in more detail below, it fails to disclose the step of “identifying content of said second medium” performed by the receiver. Weaver Decl., Ex. 2013 ¶ 69.

V. *CAMPBELL AND THONNART ARE NOT PRIOR-ART REFERENCES*

Petitioner contends that, based on the June 26, 1981 filing date, *Thonnart* is prior art under pre-AIA 35 U.S.C. § 102(e). Petitioner contends that, based on the October 15, 1981 publication date, *Campbell* is prior art under pre-AIA 35 U.S.C. § 102(a).

Conception “requires a definite and permanent idea of an operative invention, including every feature of the subject matter sought to be patented.” *Sewall v. Walters*, 21 F.3d 411, 415 (Fed. Cir. 1994). “An inventor’s testimony on conception can be corroborated through several pieces of evidence, even though no one piece of evidence independently proves conception, and even circumstantial evidence, so long as the evidence supports that the ‘inventor’s story is credible.’” *NFC Tech., LLC v. Matal*, 871 F.3d 1367, 1372 (Fed. Cir. 2017). Petitioner conceived of the subject matter covered by independent claims 1, 11, 16, and 20 by June 23, 1981. *See* Harvey Decl., Ex. 2003 ¶ 5, Grossman Memorandum, Ex. 2004, Inventor’s Notebook, Ex. 2005. The inventors’ conception is sufficiently corroborated by documentary evidence. The Inventor’s Notebook was witnessed on multiple occasions by an independent witness, Eugene Savon. *See* Ex. 2005 at 7, 10, 15, 18, and 21. The Grossman Memorandum was dated June 23, 1981 and was witnessed and acknowledged by Mr. Grossman, on June 25, 1981. *See* Ex.

2004 at 5. These independent acknowledgements provide sufficient corroboration to the conception date of June 23, 1981. Weaver Decl., Ex. 2013 ¶¶ 49-50, Ex. 2015 demonstrates the conception of every feature of claims 1, 11, 16, and 20 as reflected in the Conception Documents (Exs. 2004 and 2005).

The legal standard for diligence was recently clarified by the Federal Circuit, when it reversed the Board's finding of lack of diligence:

Periods of inactivity within the critical period do not automatically vanquish a patent owner's claim of reasonable diligence. The point of the diligence analysis is not to scour the patent owner's corroborating evidence in search of intervals of time where the patent owner has failed to substantiate some sort of activity. Rather, the adequacy of the reduction to practice is determined by whether, in light of the evidence as a whole, the invention was not abandoned or unreasonably delayed.

Arctic Cat Inc. v. GEP Power Prods., 919 F.3d 1320, 1331 (Fed. Cir. 2019) (citations and quotes omitted). The corroboration requirement for evidence of reduction to practice is the same as for conception. *See Price v. Symsek*, 988 F.2d 1187, 1195-1196 (Fed. Cir. 1993).

As corroborated by numerous pieces of evidence, Mr. Harvey has not abandoned or unreasonably delayed the reduction to practice, i.e., the filing of the '490 patent application.

In a June 29, 1981 Letter to Nancy Clott, Ex. 2006, Mr. Harvey discusses his expectations to file a patent application on the inventions by July 1981. This statement was predicated on Mr. Harvey's and co-inventor Mr. Cuddihy's work with patent attorney, Thomas J. Scott Jr. from April 1981 on the patent application, disclosing the progress on the invention to him and soliciting his views on patentability. *See* Scott Decl., Ex. 2008 ¶¶ 5, 9; *see also* Initial Disclosure Materials, Ex. 2009. Over the months leading to the November 3, 1981 filing, Mr. Scott's collected documents related to the preparation of the patent application. *See* Ex. 2012.

From before June 26, 1981, Mr. Harvey had worked on the invention every day, improving technical aspects of the invention, developing embodiments of the invention, such as various business applications, drafting a patent application, and consulting with a patent attorney, by phone, mail, and in person. The available documents confirm Mr. Harvey's diligence. *See* Harvey Decl., Ex. 2003 ¶¶ 6-13 and Scott Decl., Ex. 2008 ¶¶ 5-13. For example, on June 29, 1981, Mr. Harvey had a phone call with Mr. Scott regarding the invention. *See* 1981 Calendar, Ex. 2007 at 59. On July 9 and July 14, 1981, Mr. Harvey and Mr. Scott had additional phone calls regarding the invention. *Id.* at 62, 63. On August 6, 1981, Mr. Harvey had a meeting with Mr. Cuddihy. *Id.* at 70. On August 11, 1981, Mr. Harvey, Mr. Cuddihy, and Mr. Scott had an in-person meeting during which they discussed the

invention. Mr. Harvey's Calendar has a corresponding entry on August 11, 1981 (*Id.* at 71) and Mr. Scott has notes dated August 13, 1981 reflecting the discussion during the meeting. August 1981 Meeting Notes, Ex. 2010. In late August 1981, Mr. Harvey made notes regarding ideas on privacy and encryption as they related to the invention. *See* Inventors Notebook, Ex. 2005 at 22. Although these notes do not directly relate to the subject matter covered by claims 1, 11, 16, and 20, "[d]iligence is not negated if the inventor works on improvements and evaluates alternatives while developing an invention." *In re Jolley*, 308 F.3d 1317, 1328 (Fed. Cir. 2002). As the work on the invention and specifically on drafting the application continued, Mr. Harvey solicited comments from Mr. Scott. Mr. Scott commented on the application, as evidenced by two separate mailings to Mr. Harvey, confirmed by mailing receipts. October 1981 Mailing Receipts, Ex. 2011. Mr. Harvey traveled to Washington, D.C. to meet Mr. Scott for one final review of the application. *See* 1981 Calendar, Ex. 2007 at 97. Then, on November 3, 1981, Mr. Harvey filed his patent application.

In view of the conception of the invention covered by claims 1, 11, 16, and 20 prior to June 26, 1981, and diligence in constructively reducing the invention to practice from before June 26, 1981 through the November 3, 1981 filing date, *Thonnart* and *Campbell* are not prior-art to these claims.

VI. THE BOARD SHOULD DENY THE PETITION BY EXERCISING DISCRETION UNDER § 325

The Board's discretion to deny institution of a trial is further based on 35 U.S.C. § 325(d) when "the same or substantially the same prior art or arguments previously were presented to the Office." 35 U.S.C. § 325(d). Here, non-institution would be proper because, during the prosecution of the '217 Patent, the examiner and the Board (The '217 Appeal Decision, Ex. 1012) considered the same references (*Campbell*, *Millar*, and *Thonnart*), and many other teletext/caption references, and the Board identified claim features that are not present in the teletext references in general. Petitioner discusses the USPTO's consideration of *Campbell* and paints the picture that its treatment was insignificant. Petitioner fails to mention, however, is that another reference, U.S. Patent No. 4,536,791 to Campbell et al. ("Campbell '791") with essentially the same disclosure was used as basis of numerous rejections and the Office was well familiar with it. Moreover, Petitioner failed to demonstrate a material error by the Office.

In *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, Case IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential, designated March 24, 2020), the Board sets forth the two-part framework in determining if non-institution under § 325(d) is proper. The Board determines: "(1) whether the same or substantially the same art previously was presented to the Office or

whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.” *Id.* at 8. Factors to provide guidance to this determination are set forth in *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017): “(a) the similarities and material differences between the asserted art and the prior art involved during examination; (b) the cumulative nature of the asserted art and the prior art evaluated during examination; (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection; (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art; (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.” *Id.* at 17-18. “If, after review of factors (a), (b), and (d), it is determined that the same or substantially the same art or arguments previously were presented to the Office, then factors (c), (e), and (f) relate to whether the petitioner has demonstrated a material error by the Office.” *Advanced Bionics*, Case IPR2019-01469, Paper 6 at 10 (PTAB Feb. 13,

2020).

A. The Same Or Cumulative Art And Arguments Were Previously Presented To The Office

As to factor (a), “[p]reviously presented art includes ... art provided to the Office by an applicant, such as on an Information Disclosure Statement (IDS), in the prosecution history of the challenged patent.” *Id.* at 7-8. Patent Owner disclosed Campbell ’791, *Millar*, and *Thonnart* in IDSs and the examiner *independently* found the same three references.

x	o	1,370,535	10-74	GR. BRITAIN	MILLAR ET AL	---	---
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...

x	c	4,538,791	8-95	CAMPBELL ET AL	358	122
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’217 File History, Ex. 1002 at 5737.

x	j	4,413,281	11-83	THONNART	358	147
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’217 File History, Ex. 1002 at 5743.

Moreover, the Examiner used Campbell ’791 and *Thonnart* in rejections.

22. Claim 2, 4-12, and 18-20 are rejected under 35 U.S.C. § 103 as being unpatentable over Campbell et al (U.S. patent no. 4,536,791).

’217 File History, Ex. 1002 at 5720; see also *id.* at 4805-4810, 5245-5262, 5536-5545, 5623-5633, and 5720-5730.

E-25) Claims 76-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thonnart [US patent #4,413,281] and Zaboklicki [DE 2,904,981].

'217 File History, Ex. 1002 at 3364.

Despite the examiner not applying the references to the same claims and using the same mapping as the Petitioner does, the references are cumulative. *See* factor (b). In reviewing the “multiplicity of rejections” by the examiner, the Board observed:

Teletext is described in many of the references. Teletext is the generic term for systems that transmit alphanumeric information (letters, numbers, characters) to a home television receiver.

The '217 Appeal Decision, Ex. 1012 at 20. All three references (*Campbell*, *Millar*, *Thonnart*) are teletext references. Petitioner characterizes *Campbell* as follows: “*Campbell* describes “an addressable cable television control system” that sends text and graphics information (e.g., teletext), in the “vertical interval” of a television broadcast.” Petition at 5. Petitioner states that “*Millar* incorporates teletext technology . . .” Petition at 10. And *Millar*’s introduction comports with the Board’s characterization of teletext:

This invention relates to television systems and receivers and concerns systems which enable alphanumeric information, such as captions and pages of information to

be transmitted simultaneously with a video signal

Millar, Ex. 1006 at 1:9-14. *Thonnart* relates to teletext and is even entitled “Method for simultaneous teletext and analog signal transmission.” Accordingly, *Campbell*, *Millar*, and *Thonnart* are the same references that were involved during prosecution, or, at the very least cumulative to other references. Thus, *Becton*, *Dickinson* factors (a) and (b) weigh in favor of denying institution.

Further, “the same or substantially the same arguments previously were presented to the Office.” *Advanced Bionics*, Case IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020). Each of *Campbell*, *Millar*, and *Thonnart* falls in the teletext art and is cumulative over the multiplicity of references presented to and considered by the Board on appeal.

As to factor (d), the Board outlined the distinctions between teletext references, collectively, and the invention as follows:

Appellants’ disclosed invention is different from these types of teletext. As disclosed, a computer in the television receiver determines that a selected program is being received, which it does by comparing an identifier of a particular program, such as "Wall Street Week," in the received data to an identifier stored in the computer.

...

Another way the disclosed invention differs from

conventional teletext is that teletext methods display the received teletext data, whereas the disclosed invention causes the computer to generate a display based on stored information from another source.

The '217 Appeal Decision, Ex. 1012 at 21. Both of these features are addressed in this Preliminary Response. *See* Section VIII below. Thus, the overlap between the examiner's rejections over teletext, which the Board disposed of wholesale, and Petitioner's arguments are significant.

In view of the above, *Becton*, *Dickinson* factors (a), (b), and (d) weigh in favor of denying institution because the same—or at least cumulative—art cited in the Petition was previously presented to the Office and the same or substantially the same arguments were previously presented to the Office, including the Board.

B. Petitioner Has Not Demonstrated That The Office Erred In A Manner Material To The Patentability Of Challenged Claims

As to factor (c), as discussed above, the Examiner was aware of *Campbell*, *Millar*, and *Thonnart*. In fact, the examiner used *Campbell* '791 (with substantially identical disclosure to *Campbell*) and *Thonnart* to reject claims. The examiner evaluated the art to make rejections and *chose* not to use *Millar*. The fact that the examiner did not use *Millar* is of little consequences, however, in view of the multiplicity of other cumulative teletext references used for rejections over the span of the '217 Patent prosecution.

As to factor (e), Petitioner makes a blanket assertion that “. . . the examiner erred in allowing the asserted claims to issue based on amendments made by PMC . . .” First, PMC's amendments were informed by the 2009 Board decision that reversed rejections of some of the claims. Then following an interview with Patent Owner, the Examiner entered his own amendments that placed the application in condition for allowance based on certain claim constructions. Notice of Allowance, Ex. 1015. The examiner did not err when, informed by the proper constructions adopted by the Board, and by further amending the claims to distinguish prior art, the examiner allowed the application.

As to factor (f), Petitioner attempts to apply teletext references that lack features set forth in the claims. Petitioner relies on its expert declaration, but the declaration contains *opinions*, not facts. Petitioner or its expert do not explain what exactly is new over the previously considered teletext references that were distinguished by the Board.

Petitioner blames the Patent Owner for citing 2,000+ references during prosecution. Patent Owner cannot be blamed for complying with its duty of disclosure. More importantly, the number of references cited by Patent Owner is immaterial because the examiner found *Campbell*, *Millar*, and *Thonnart* *independently* and cited them in the very first Office Action. In other words, regardless of the number of references cited by Patent Owner, the examiner was

aware of *Campbell*, *Millar*, and *Thonnart* and chose to reject claims over some of them and not over the other.

Accordingly, the Board should deny institution under § 325(d) because the references presented in the Petition are the same, substantially the same, or at the very least cumulative of those the Office considered prosecution and Petitioner has failed to demonstrate a material error by the Office. See *Advanced Bionics*, Case IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020).

VII. CLAIM CONSTRUCTION

A. **“determining content,” “identify content,” “identifies [] content,” and “identifying [...] content”**
(appearing in independent claims 1, 11, 16, and 20)

These terms have been construed by the Board in its 2009 Appeal Decision and by the District Court for the Eastern District of Texas (“Court”).

The proper construction of the constituent term “content” is pertinent to Petitioner’s arguments. The Board previously provided the following explanation for this term:

Although not defined in the specification, Appellants' definition of “content” as “substance, gist, meaning, or significance” is supported by a dictionary definition (Br. 32). “Content” of a medium is information in or describing the medium, such as the identity of the program, and words, sounds, and images in the medium.

The '217 Appeal Decision, Ex. 1012 at 27.

Providing further elaboration on this term, the Court, in the *PMC v. Google* Claim Construction Order, provided the following construction:

“content” means “the substance or gist, in contrast to form or structure”

Claim Construction Order, Ex. 1026 at 67.

Turning to the “determining” and “identifying” phrases, they been construed by the Board and by the Court in *PMC v. Google*. While the Board at the time applied the broadest-reasonable standard and the Court applied the *Phillips* standard, both arrived at essentially the same constructions. Addressing the construction of these terms, the Board stated:

The limitations of ‘determining content’ or ‘identifying content’ require some ascertaining or recognizing the content, but this is not limited to machine recognition.

The '217 Appeal Decision, Ex. 1012 at 26. In a similar vein, recently, in *PMC v. Google*, the Court—adopting Petitioner’s proposed constructions—confirmed its earlier holding as follows:

- ‘determining content’ means ‘ascertaining or recognizing the content, and not simply determining the type of medium’;

...

- ‘identify content’ means ‘ascertain or recognize content, and not simply identify the type of medium’;

Claim Construction Order, Ex. 1026 at 67. Additionally, “the Court [took] no position on whether the claims otherwise require machine identifying or determining.” *Id.*

Petitioner neglected to even mention, let alone use, these constructions and instead presented an argument that relied on the Board’s decision with respect to a *different claim term in a different patent guided by the broadest-reasonable claim construction standard not applicable to this proceeding. See, e.g.,* Petitioner’s citation to the ’560 Appeal Decision, Ex. 1013, which is a decision on appeal in connection with the Application No. 08/447,611, not the instant ’217 Patent Application No. 08/487,526. Petition at 24-25, n. 7.

As explained more fully below, applying the proper construction for these terms demonstrates that the prior art references relied on by the Petitioner, individually or in combination, fail to disclose, teach, or suggest “identify content of said second medium” in claim 11 as well as similar terms in claims 16 and 20.

B. “[coordinating / coordinate / coordinated / combining] . . . based on [said step of determining content / based on said second medium / said generated information based on said second medium / based on said step of causing to be output]” (independent claims 1, 11, 16, and 20)

The dispute relates to the meaning of the phrase “based on” in these claim

phrases. In its 2009 decision, the Board interpreted “the limitation of coordinating ‘based on said step of determining’ to require no more than coordinating subsequent to a step of determining content.” The ’217 Appeal Decision, Ex. 1012 at 154. The reason for this interpretation was Patent Owner’s reliance on U.S. Patent No 4,694,490 to establish priority for the ’217 Patent claims. The Board concluded that the “’490 patent only describes ‘coordinating’ as happening after ‘identifying content,’” citing to ’490 Patent 18:43-20:2, which was the rationale for such a broad construction.³ Patent Owner wishes to revisit this conclusion and submits that, especially in view of *Philips*, this construction is unreasonably broad.

Turning to the disclosure of the ’490 Patent that formed the basis of the 2009 Board construction, it provides causal, not merely temporal, relationship between determining content and the step of coordinating. The ’490 Patent discloses receiving digital data.

“Each weekday, microcomputer, 205, receives, about 4:30 PM, by means of a digital information channel, all closing stock prices applicable that day.”

’490 Patent, Ex. 1011 at 18:35-37. The ’490 Patent further discloses generating

³ The Board’s discussion related to claim 2 (issued claim 1), but it applies to other claims reciting the “based on” language.

information, such as graphic overlays.

These signals instruct microcomputer, 205, to generate several graphic video overlays, which microcomputer, 205, has the means to generate and transmit and TV set, 202, has the means to receive and display . . .”

'490 Patent, Ex. 1011, col 19:49-52. The '490 Patent further discloses coordinating an overlay with programming transmitted from the studio.

This [different] signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204.

'490 Patent, Ex. 1011 at 19:64-67.

The '490 Patent indeed discloses the step of “coordinating” occurring some time after the step of “determining.” But irrespective of the time gap, coordinating is still “based on,” in the sense of having causal relationship to, the step of determining. As disclosed in the '490 Patent, the coordination of the two media (television programming and previously generated overlays) relies on the determining of content of the medium with data required to generate an overlay. Accordingly, “coordinating” is based on “determining” in the sense of causation and not merely in terms of “coordinating” following “determining” in time. In other words, not only “coordinating” is carried out *after* “determining,” but also that “coordinating” cannot happen without “determining.” It appears, therefore,

that in applying the broadest reasonable interpretation of the claims, proper for that proceeding, the Board overlooked some details of the '490 Patent disclosure, which resulted in claim construction that equated “after” and “based on.” In the context of these claim phrases, “based on” requires some causal relationship between the two events, while “after” imposes only a temporal relationship. The coordination disclosed in the '490 Patent occurs “based on” the step of determining because had there not been the step of determining, no coordination would take place or would even be possible.

Even if the old construction was proper under the “broadest reasonable standard” applicable at the time, under the *Philips* claim construction standard applicable to this proceeding, “based on” cannot have the same meaning as “after.” First, it is inconsistent with the understanding of a POSITA. Weaver Decl. Ex. 2013 ¶ 89. Second, disclosure from the '490 Patent used by the Board as basis for a broader interpretation does not support such a broad construction. Moreover, in some claims, the Patentee used the term “subsequent to” thus creating presumption of a different meaning compared to “based on.” Claim 20 is particularly instructive on this point because it recites both “subsequent to” and “based on”:

causing a video image of said series of discrete video images to be output and displayed subsequent to said step of identifying;

combining said outputted video image into said
multimedia presentation at said output device based on
said step of causing to be output

'217 Patent, Ex. 1001, claim 20. The Patentee knew how to use the term
“subsequent to” and yet chose “based on,” the term presumably having a different
meaning.

Accordingly, the proper construction of “based on” is to require causal
relationship between two things, as oppose to merely one event occurring after
another.

C. **“generate information based on said second medium”
(independent claims 11 and 16) and “create a series of discrete
video images” (independent claim 20)**

In *PMC v. Google*, Patent Owner proposed to construe this claim phrase to
have its plain and ordinary meaning. Petitioner proposed to construe this claim
phrase to mean “to bring into existence information at the receiver station, as
opposed to selecting or retrieving information transmitted to the receiver station,
based on said second medium.” Claim Construction Order, Ex. 1026 at 55. In
analyzing the dispute between the parties, the Court observed that “The issue in
dispute appears to be whether “generate information based on said second
medium” encompasses simply selecting the information. It does not, though the
Court understands that this does not exclude using preexisting information to
generate information.” *Id.* (emphasis added). Partially adopting Petitioner's

proposed construction, the Court construed this claim phrase as follows:

“generate information based on said second medium”
means “bring into existence information based on said
second medium and not simply select or retrieve the
information.”

Id. at 56. Similarly, the Court construed “create a series of discrete video images”
as follows:

“create a series of discrete video images” means “bring
into existence a series of discrete video images and not
simply select or retrieve the series of discrete video
images.”

Id. at 56.

VIII. REFERENCES CITED IN THE PETITION DO NOT RENDER INDEPENDENT CLAIMS 1, 11, 16, AND 20 OBVIOUS

A. All Independent Claims Are Patentable In View of Ground 1

To assist the Board, at the outset, Patent Owner notes the mapping of key
elements by Petitioner:

Claim	“first medium”	“medium received after said first medium” (claim 1) or “second medium” (claims 11, 16, 20)
1	Information in the VBI	Television program
11	Television program	Information in the VBI
16	Television program	Information in the VBI

20	Television program	Information in the VBI
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1. The *Campbell-Millar* combination Does Not Render Claim 1 Obvious

- a. The *Campbell-Millar* Combination Does Not Disclose Teach, or Suggest “determining content . . . of each medium received after said first medium” in element 1[d]

Claim 1[d] requires “determining content . . . of each medium received after said first medium.” The Petition identifies the “other medium”—the one received after the first medium—as a picture and sound television medium. The *Campbell-Millar* combination, however, does not determine content of this medium.

As an initial matter, Petitioner admits that “*Millar* does not, however, disclose determining the content of this *other medium*: the picture and sound television medium.” See IPR2020-00722 Petition, Reader Decl., Ex. 1104 ¶ 59.

As to *Campbell*, Petitioner states:

Eligibility codes transmitted in the vertical interval of the television broadcast define the subject matter for the program. This allows families ‘to control access to all movies having unsuitable subject matter.’

Petition at 24. In other words, each program may be accompanied by a code that may restrict access to immature or unauthorized viewers. Weaver Decl., Ex. 2013 ¶ 74.

Although this feature is disclosed in *Campbell*, it does not meet the

“determining content” element 1[d]. As discussed above, “determining content” is “ascertaining or recognizing the content, and not simply determining the type of medium.” Claim Construction Order, Ex. 1026 at 67. Using eligibility codes by *Campbell's* subscriber equipment, however, is not “determining content.”

Whether content is suitable for a particular audience does not involve “ascertaining or recognizing” content. Weaver Decl., Ex. 2013 ¶ 75. Indeed, in determining that a given program is not suitable for young children, for example, *Campbell's* receiver does not ascertain or recognize the content of the program, but rather compares the eligibility code to an eligibility threshold. *Campbell*, Ex. 1014 at 21:5-21. The eligibility code does not inform the receiver of the content, but only indicates a level of appropriateness that may be used to exclude the TV program from viewing based on the eligibility threshold. Weaver Decl., Ex. 2013 ¶ 75.

To the extent any determination of content of the television video/audio medium occurs, it occurs at the head end station 11 or further upstream, at the program, text, or control source, before transmission to the subscriber equipment. Weaver Decl., Ex. 2013 ¶ 76. Content creators or cable operators that *assign* the eligibility code to a program may need to determine its content. *Id.* But “determining content” is a step required by the language of claim 1 to be carried out by the “receiver station.” *Campbell* does not disclose its subscriber equipment performing this step. *Id.* Fundamentally, to *Campbell's* subscriber equipment

(receiver station), eligibility codes provide only broad classification of the *audience* (e.g., age appropriateness, tolerance for horror, nudity, and/or foul language), not the content of the program.

An eligibility code 206 defines a rating which may be assigned to many of the television programs for subject matter which may not be suitable for viewing by all parties at the user station.

Campbell, Ex. 1014 at 19:27-29; Weaver Decl., Ex. 2013 ¶ 76. In other words, the eligibility code when compared to the eligibility threshold provides only a single metric indicative of a subscriber's viewing preferences. Weaver Decl., Ex. 2013 ¶ 77. Accordingly, carrying out operations on this eligibility code, such as comparing it to a threshold by *Campbell's* receiver (converter 40) is not "determining content."

- b. The *Campbell-Millar* Combination Does Not Disclose, Teach, or Suggest ". . . a medium comprising an identifier . . ." in element 1[e]

Claim 1[e] requires "coordinating . . . a presentation using said information with a presentation of a medium comprising an identifier that matches said predetermined identifier based on said step of determining content." In this element "said information" refers to, and finds antecedent basis in, "storing information from said first medium" of element 1[c]. And according to the Petition, "a medium comprising an identifier . . ." is the television medium.

Petition at 28 (“coordinate presentations by virtue of the ‘information’ (caption) being superimposed on the ‘second medium’ (television picture)”) (citations and punctuation marks omitted). Further, according to the Petition, information in the VBI is a different medium from the “picture and sound television information” medium (“television medium”). Petition at 23. To the extent any identifiers are present in the prior art, they are included in the medium received in the VBI. Weaver Decl., Ex. 2013 ¶ 78. The prior-art television medium has no purpose to include an identifier in the television medium, and neither *Campbell* nor *Millar* discloses this. *Id.*

The Petition is evasive on this specific limitation. *Id.* ¶ 79. The *entirety* of the Petitioner’s contention regarding the television medium comprising an identifier is as follows:

Campbell in view of *Millar* teaches that the receiver station coordinates a presentation of the stored caption data with a picture and sound television medium, i.e., the claimed “medium comprising an identifier that matches . . . based on said step of determining content,” by creating captions and superimposing them on the picture in the proper location. (Reader Decl., Ex. 1004 ¶ 73; Section VII.A.1.d; The ‘217 Appeal Decision, Ex. 1012 at 51.)

Petition at 30. Petitioner simply equates “a picture and sound television medium” with “the medium comprising an identifier” without explaining where in *Campbell*

or *Millar* the “picture and sound television medium” comprises an identifier.

Weaver Decl., Ex. 2013 ¶ 80.

The citations at the end of the above-quoted discussion from the Petition are equally unavailing: Reader Decl., Ex. 1004 ¶ 73 parrots that “picture and sound television medium” is the “medium comprising an identifier . . .,” but does not explain where *Campbell* or *Millar* actually discloses or suggests the picture and sound television medium *comprising an identifier*. Weaver Decl., Ex. 2013 ¶ 81. In fact, in both *Campbell* and *Millar*, the television picture and sound are transmitted *without* any alterations and do not include an identifier. *Id.*

Furthermore, according to the Petition, the head end video processor, such as HVP 53 in *Campbell*, “incorporates text, and graphics, and control data into the vertical interval of a television signal.” Reader Decl., Ex. 1004 ¶ 37 citing *Campbell* at 7:16-25. As applied to *Campbell*, Reader Decl. depicts the vertical blanking interval (incorporating text, graphics, and control), as distinct from other lines in the television transmission (incorporating television video and audio) as follows:

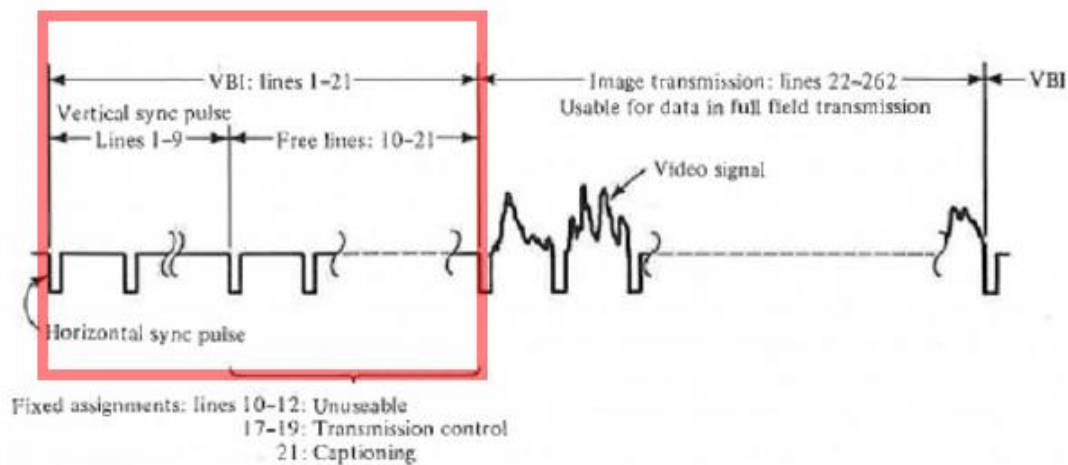


Figure 4.6 Simplified timing diagram of an NTSC field. VBI lines 13–16 and 20 are potentially available for data transmission (data lines).

Weaver Decl., Ex. 2013 ¶ 82; Reader Decl., Ex. 1004 ¶ 35. Dr. Reader uses the same figure to explain that *Millar's* captioning data is incorporated into the vertical blanking interval. “Specifically, [*Millar*] discloses sending a ‘digitally coded data signal’ representing caption data in what is called a ‘vertical interval’ of a television signal.” IPR2020-00722, Reader Decl., Ex. 1104 ¶ 41. In other words, the *first medium* (such text and graphic information or captioning) is what according to the Petition is transmitted in the VBI, not the (television programming) medium that is required by the claim to comprise an identifier. Weaver Decl., Ex. 2013 ¶ 83.

Both the Petition and Reader Decl., Ex. 1004, refer to the discussion in the respective preceding section related to the previous element 1[d] of “determining . . .” that also fails to address an identifier included in the television picture and sound medium. *Id* ¶ 84.

Finally, both the Petition and Reader Decl., Ex. 1004, refer to the '217 Appeal Decision by the Board, Ex. 1012 at 51, where the Board *reversed* the rejection of the claim that ultimately issued as claim 1, even before it was finally amended. In any event, the referenced discussion does not address the television picture and sound medium *comprising an identifier*. Weaver Decl., Ex. 2013 ¶ 85.

As mentioned above, the *Campbell-Millar* combination fails to disclose, teach, or suggest the television picture and sound medium having an identifier because in both of these references the television program is transmitted unaltered, without any identifiers, and the text/graphics/control information of *Campbell* and the caption data of *Millar* are a part of the “first medium,” the one transmitted in the vertical blanking interval, not as part of the television picture and sound medium. *Id.* ¶ 86.

- c. The *Campbell-Millar* Combination Does Not Disclose, Teach, or Suggest “coordinating . . . based on said step of determining content” in element 1[e]

Claim 1[e] requires “coordinating . . . based on said step of determining content.” Petitioner notes that:

Campbell describes eligibility codes that define a subject matter for a program, and indicate if it contains suitable content for children or content for mature audiences. . . . If the content is unsuitable, the program is not presented. *Campbell* therefore provides the picture and sound

portion of a multimedia presentation *only after it has determined the content* and deemed it appropriate for the audience.

Petition at 31-32 (citations omitted) (emphasis in the original). In summary, Petitioner argues that *Campbell* determines whether a given program is suitable for presentation and *Millar* coordinates the display of television picture with captioning. The Petition does not contend that *Millar* discloses the “based on” limitation.⁴ And because in this hypothetical *Campbell-Millar* system, the coordination occurs *after* the determination of the content appropriateness, coordination is *based on* this determination. Weaver Decl., Ex. 2013 ¶ 88.

Petitioner relies on an unreasonably broad construction of “based on” to mean “after.” This argument fails because in the hypothetical *Campbell-Millar* system coordinating is not *based on* determining. Accordingly, as discussed in Section VII.C above, in view of the proper *Philips* construction, and as understood by a POSITA, a mere temporal relationship between “determining” and

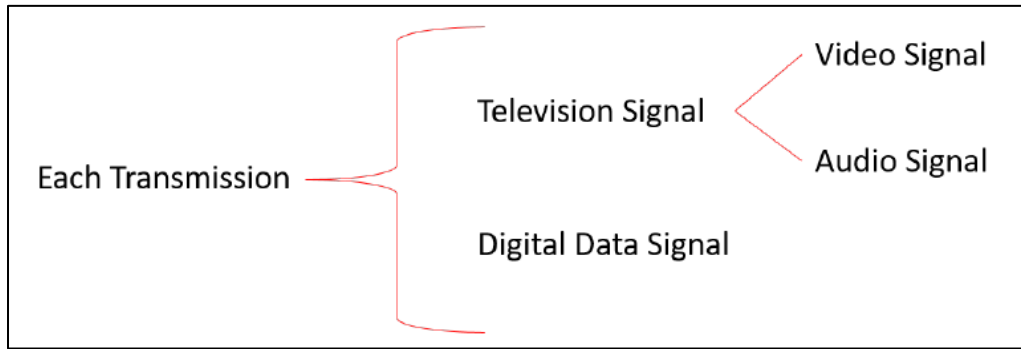
⁴ In the parallel Petition, the Petitioner relies on disclosure in Keiser (not *Millar*) for “determining.” IPR2020-00722, Reader Decl., Ex. 1104 (“*Millar* does not, however, disclose determining the content of this *other medium*.”) So “determining” or anything occurring “*based on*” determining is not found in *Millar*.

“coordinating” is not sufficient to render this limitation obvious over the *Campbell-Millar* combination. Weaver Decl., Ex. 2013 ¶¶ 89-90.

2. The *Campbell-Millar* Combination Does Not Render Claim 11 Obvious

- a. The *Campbell-Millar* Combination Does Not Disclose, Teach, or Suggest “each signal of said subset of said plurality of signals including an identifier” in element 11[b]

Claim 11 requires “[11a] a receiver station adapted to process a plurality of signals . . . [11b] receiving a subset of said plurality of signals . . . wherein said subset of said plurality of signals comprises a plurality of said plurality of signals.” In other words, the receiver station is adapted to receive a plurality of signals, where a subset of that plurality is also a plurality of signals. Petitioner contends that the first plurality (super plurality) “includes (1) digital signals with text and graphics (captions in view of *Millar*), and (2) television signals with picture and sound television information.” Petition at 40, Reader Decl., Ex. 1004 ¶ 102. And the subset plurality comprises an audio signal and a video signal. *Id.* ¶ 103. Petitioner’s expert has created the following graphic to illustrate Petitioner’s signal mapping.



Reader Decl., Ex. 1004 ¶ 102.

Further, claim 11[b] requires “each signal of said subset of said plurality of signals including an identifier.” While Petitioner points to the “sound signal” and “video signal” as the subset of the super-plurality of signals, the *Campbell-Millar* combination fails to disclose, teach, or suggest that any of those signals, let alone each of them, includes an identifier. Weaver Decl., Ex. 2013 ¶ 92. As explained in Section VIII.A.1.b above, to the extent this reference combination discloses an identifier, it is included in the VBI or what the above figure refers to as “Digital Data Signal,” not in each signal of the subset plurality (i.e., not in the video signal and/or in the audio signal). *See id.*

Petitioner cannot show this claim limitation in the prior art of record; instead, it relies on an unavailing sequence of citations. The Petition relies on the accompanying expert declaration Reader Decl., Ex. 1004 ¶ 104, which in turn relies on ¶¶ 64-69 that discusses the eligibility code transmitted in the VBI as part of what Dr. Reader characterizes as “Digital Data Signal,” not video/audio signals.

Finally, the Petition mentions, in footnote 10, PMC's infringement contentions in the PMC v. Google litigation, where Google characterizes PMC's statements as: "where the alleged receiver station receives a TCP/IP packet comprising 'TCP Destination Port' number (the alleged 'identifier') and 'audio and/or video signals.'" Petition at 41, n. 10. Petitioner then concludes: "Thus, *Campbell's* disclosure of an identifier that accompanies that audio and/or video signals discloses or renders obvious this limitation based on PMC's statements." *Id.* This conclusion is without merit. Weaver Decl., Ex. 2013 ¶ 94.

As an initial matter, PMC's infringement contentions have no bearing on the validity of the '217 Patent. Moreover, an argument made in a footnote should be disregarded. *Cisco Sys., Inc. v. C-Cation Techs., LLC*, Case IPR2014-00454 (PTAB, Aug. 29, 2014) Addressing the merits of this argument, however, Petitioner appears to analogize (a) the TCP Destination Port header field with the claimed identifier and (b) the TCP packet payload with the claimed subset signal plurality. Weaver Decl., Ex. 2013 ¶ 95. PMC's Infringement Contentions, Ex. 1025, do not state, as Petitioner implies, that the "TCP Destination Port" number is part of a *different* signal. Petitioner, however, does state that the identifier in the *Campbell-Millar* combination is part of the digital data signal (the VBI), the signal that is, according to the Petition, different and distinct from the subset plurality of signals carrying television video and audio. Weaver Decl., Ex. 2013 ¶ 95. Again,

in *Campbell* and *Millar*, none of the signals in the subset plurality (video and audio) includes an identifier. *Id.*

b. The *Campbell-Millar* Combination Does Not Disclose, Teach, or Suggest “identify content of said second medium” in element 11[f]

Claim 11[f] requires “identify[ing] content of said second medium.”

Petitioner states that the “second medium” is the text and graphic (captions in view of *Millar*) information carried by digital signals. Petitioner admits that “*Campbell* does not expressly disclose identifying the content of this second medium.”

Petition at 44-45. Petitioner's expert follows with a gratuitous statement that “*Campbell* does disclose displaying the ‘transmitted channel frequency’.” Weaver Decl., Ex. 2013 ¶ 96 (citing Reader Decl., Ex. 1004 ¶ 118). There is no citation to this statement and Patent Owner was unable to find this quote in *Campbell*.

Petitioner argues that *Millar* discloses “identify the content of this [caption information] ‘second medium’.” Petition at 46.

First, Petitioner confuses the disclosure of (1) a full-screen page that does not get overlaid with the television video (*Millar*, Ex. 1006 at 3:41-71, 4:24-62) and (2) the one-line caption that does overlay the video (*Millar*, Ex. 1006 at 4:77-5:122). Weaver Decl., Ex. 2013 ¶ 98. Yet, Petitioner uses the disclosure related to the full-screen pages as if it applied to one-line captions. *Id.* As mentioned above, the one-line caption is timed and is not accompanied by any identifying

information. The one-line caption transmitted in the VBI of a television frame is overlaid on top of the television picture in that frame only. *Millar*, Ex. 1006 at 4:77-5:122 (“When characters are being received they are timed into the correct position in the registers 38 during the 14th line by pulses provided by a comparator 41”.); Weaver Decl., Ex. 2013 ¶ 98. The only identification that the *Millar* receiver performs is to identify the television transmission frame line number and that is not “content” because it is not “the substance or gist,” but rather “form or structure,” specifically excluded from the construction of “content.” Weaver Decl., Ex. 2013 ¶ 98; *See also* PMC v. Google Claim Construction Order, Ex. 1026 at 65-68; Section VII.A above.

Turning to the full-screen text pages, initially, it cannot be the claimed “second medium” because information in the full-screen text pages is not coordinated and combined with the television video of the first medium as required in claim 11[h]. Weaver Decl., Ex. 2013 ¶ 99.

Even assuming that the full-page text is overlaid on top of the video signal in *Millar*, the disclosure quoted by Petitioner still falls short of “identifying content,” as properly construed. The portion of *Millar* cited by Petitioner deals with the storage of *full-screen* text pages. Weaver Decl., Ex. 2013 ¶ 100. *Millar* discloses “serial stores” of the full-screen text information that is based on timing. *Id.* Specifically, *Millar* states “The page selector 58 simply selects the timing gate

position for reading into the store if the page-interlace organization is used or sets the field counter as just described if either of the other organisations is used.”

Millar, Ex. 1006 at 4:30-35. Then *Millar* introduces an alternative—“random access stores.” *Millar*, Ex. 1006 at 4:49-50. To implement these random access stores, *Millar* includes address codes that are compared to set-up codes by the page selector. This way, only the desired text page is stored. Weaver Decl., Ex. 2013

¶ 100. Petitioner relies on the following disclosure in *Millar* taken out of context.

Instead of using serial stores as described, addressed random access stores may be employed, in which case each character or row of characters has added thereto address code bits defining the page and/or the position within the page thereof, depending on the data organization employed.

In this case the page selector sets up the required page code and the timing signals set up a sequence of character or row address codes. The incoming address codes are compared with the set-up codes and, as matches occur, the associated character codes are entered into storage.

Petition at 46 (citing to *Millar*, Ex. 1006 at 4:24-62). The process of matching these set-up codes to the codes included in the full-screen page line and characters is not “identifying content,” because the above process does not “ascertain or

recognize” the “substance or gist” of the full-screen page(s). Weaver Decl., Ex. 2013 ¶ 101. The process results in some lines/characters entering the storage and some being discarded. But this is performed without any recognition of the “substance or gist” of those lines and characters. *Id.*

It is also telling that Petitioner introduces Ground 2 in this Petition and felt the need to rely on yet another reference, *Thonnart*, to address this specific limitation.

- c. The *Campbell-Millar* Combination Does Not Disclose, Teach, or Suggest “generate information based on said second medium based on identifying said content of said second medium” in element 11[g]

Claim 11[g] requires “generat[ing] information based on said second medium based on identifying said content of said second medium,” which the *Campbell-Millar* combination is lacking.

First, because the *Campbell-Millar* combination lacks the step of “identify[ing] content of said second medium,” as discussed in Section VIII.A.2.b above, common sense dictates that this combination of references does not perform any other step *based on* identifying said content of said second medium. Weaver Decl., Ex. 2013 ¶ 104. The Board made a similar observation with respect to claim 1 (claim 2 on appeal):

The subsequent step of “coordinating . . . a presentation . . . based on said step of determining” is based on the step

of determining, and the step of “outputting . . . based on said step of coordinating” is indirectly based on the step of determining. Since Turner does not describe the step of “determining content of a second medium,” these steps are also not present.

Id. (citing the '217 Appeal Decision, Ex. 1012 at 51).

Second, the *Campbell-Millar* combination does not “generate information based on said second medium.” PMC v. Google Claim Construct Order, Ex. 1026 at 56-57. Moreover, the '490 Patent, to which this patent claims priority, discloses the receiver station receiving all closing stock prices applicable to that day and then “generat[ing] several graphic video overlays, which microcomputer, 205, has the means to generate and transmit and TV set, 202, has the means to receive and display.” '490 Patent, Ex. 1011 at 19:49-52.

The Petition identifies two types of supposedly “generated” information: subtitles presumably from *Millar* and a channel number presumably from *Campbell*. In both cases, no information is *generated*, i.e., brought into existence based on said second medium, under the proper construction of the term. *See* Section VII.C above. Rather, the information “is simply selected or retrieved,” the operations specifically not covered by the construction and therefore excluded from the claim scope. *See* Weaver Decl., Ex. 2013 ¶ 105; Claim Construction Order, Ex. 1026 at 56-57.

Campbell discloses a channel number overlay.

Optionally the video switches also permit the channel number display to be superimposed on the video signal of the channel which is being presented. The output of generator 118 is connected to a channel 3 or 4 modulator 134 which in turn is connected to a subscriber's television set.

Campbell, Ex. 1014 at 14:7-14. But while *Campbell* discloses receiving a channel number in the VBI in certain situations (special events), the channel number that is superimposed is not the one transmitted from the head end station. Weaver Decl. Ex. 2013 ¶ 107 (citing ¶¶ 59-60). The channel number that *Campbell* superimposes is the one selected on the remote control, which is always available regardless of whether the displayed program is a special event or a regular television program and which does not arrive in the VBI. *Id.* To this end, *Campbell* explains that a channel number may be superimposed on the television program and is acquired from the user's remote control in all cases, not just in limited circumstances of a special programming event. *Id.* Petitioner's expert appears to agree. *See* Reader Decl., Ex. 1004 ¶ 53 (stating *Campbell* can transmit teletext and is capable of superimposing text like a "channel number" on the screen with the associated picture, but not the same "channel number" as the one received as teletext.) The user input of the channel number is not the second medium

identified in the Petition because it is not received through transmission of the “identified medium” (in the VBI), as required by the claims. *Id.* ¶ 108.

Moreover, regardless of the channel number source, *Campbell* receiver does not bring the channel number into existence because the receiver does not “bring it into existence”; it arrives to the receiver and requires no creation. Weaver Decl. Ex. 2013 ¶ 109.

Likewise, *Millar* also does not disclose or suggest that any information is *generated* based on the second medium. The process that the Petition portrays as generating information based on the second medium—extraction, selection, storage, and character generation—is simply decoding the information of the second medium, not *bringing into existence* information *based on* the second medium. Weather Decl., Ex. 2013 ¶ 110. Rather, *Millar's* steps outlined in the Petition are simply selecting or retrieving the information from the second medium, which is outside the scope of the claim, as properly construed. *See* Claim Construction Order at 56-67; Section VII.C above.

Moreover (even before the April 3, 2020 Court claim construction order), while considering a number of similar references, the Board observed that teletext (of which captioning, the Board determined, was a special case) lacks the step of “generat[ing] information” as claimed.

One special type of teletext data is captioning.

Captioning is a program related teletext message that is transmitted to the decoder and superimposed over the program video at a pre-determined time. [The description applicable to *Millar*] . . . Another way the disclosed invention differs from conventional teletext is that teletext methods display the received teletext data, whereas the disclosed invention causes the computer to generate a display based on stored information from another source.

The '217 Appeal Decision, Ex. 1012 at 20-21 (emphasis added). The question of whether teletext and caption references, collectively, disclose the “generat[ing] information” step has already been considered and resolved by the Board. The above discussion of *Campbell* and *Millar* (in view of the Court's recent construction) only supports this conclusion. Weaver Decl., Ex. 2013 ¶ 112.

3. The *Campbell-Millar* Combination Does Not Render Claim 16 Obvious

- a. The *Campbell-Millar* Combination Does Not Disclose, Teach, or Suggest “each signal of said plurality of signals including an identifier” in element 16[c]

The Petition does not provide any analysis related to limitation 16[c].

Instead, the Petition relies on the discussion in connection with elements 11[d] and 11[e]. For the reasons set forth in Section VIII.A.2.a above, the *Campbell-Millar* combination fails to disclose, teach, or suggest “each signal in said plurality of signals including an identifier.” Weaver Decl., Ex. 2013 ¶ 113.

- b. The *Campbell-Millar* Combination Does Not Disclose, Teach, or Suggest “identifying content of said second medium” in element 16[f]

The Petition does not provide any analysis related to limitation 16[f].

Instead, the Petition relies on the discussion in connection with element 11[f]. For the reasons set forth in Section VIII.A.2.b above, the *Campbell-Millar* combination fails to disclose, teach, or suggest “identifying content of said second medium.” Weaver Decl., Ex. 2013 ¶ 114.

- c. The *Campbell-Millar* Combination Does Not Disclose, Teach, or Suggest “processing, based on said content of said second medium, said second medium to generate information based on said second medium” in element 16[g]

The Petition does not provide any analysis related to limitation 16[g].

Instead, the Petition relies on the discussion in connection with element 11[g]. For the reasons set forth in Section VIII.A.2.c above, the *Campbell-Millar* combination fails to disclose, teach, or suggest “processing, based on said content of said second medium, said second medium to generate information based on said second medium.” Weaver Decl., Ex. 2013 ¶ 115.

4. The *Campbell-Millar* Combination Does Not Render Claim 20 Obvious

- a. The *Campbell-Millar* Combination Does Not Disclose, Teach, or Suggest “each of said plurality of signals including an identifier” in element 20[c]

The Petition does not provide any analysis related to “each of said plurality

of signals including an identifier” limitation in 20[c]. Instead, the Petition relies on the discussion in connection with elements 16[c]. For the reasons set forth in Section VIII.A.2.a above, the *Campbell-Millar* combination fails to disclose, teach, or suggest “each of said plurality of signals including an identifier.” Weaver Decl., Ex. 2013 ¶ 116.

- b. The *Campbell-Millar* Combination Does Not Disclose, Teach, or Suggest “processing a control signal at said receiver station that causes execution of processor instructions to process data received in a second medium” in element 20[e]

Claim 20[e] requires “processing a control signal . . . that causes execution of processor instructions to process data received in a second medium.”

Petitioner’s mapping of *Campbell* and *Millar* overlooks the causal connection between a “control signal” and “process[ing] data received in a second medium.”

Petitioner first points to the disclosure in *Campbell* and *Millar* that supposedly render obvious the element of “process data received in a second medium . . .”

Campbell receives a digital data signal, extracting it from the television signal, storing it, and transferring it to a text/graphic generator to provide characters and graphics symbols (captions superimposed on the picture in view of *Millar*) “for display” at a user’s television.

Petition at 64 (citations omitted).

Then the Petition states that *Campbell* further discloses “processing a control signal at said receiver station that causes execution of processor instructions,” (Petition at 65) while failing to explain how the “control signal” identified above *causes* execution of processor instructions to process data received in second medium. Weaver Decl., Ex. 2013 ¶ 119. Specifically, the Petition points to *Campbell*'s processing of “channel control codes” (tier codes and eligibility code) that determine which program the receiver displays.

. . . *Campbell* explains that its receiver also processes channel control codes (tier codes and eligibility codes, inter alia) that determine which programs the receiver will displays. [sic] The control information is received at the RF/data separator and sent to converter control logic unit “carried out by a microprocessor.”

Petition at 65-66 (citations omitted).⁵ The argument must fail because neither the Petition nor the Expert declaration explained the causation, which is the express

⁵ Petitioner identifies similar disclosure in *Millar*, but because it is presented in footnote (n. 16), and adds no material substance over *Campbell*, the Board should ignore it and Patent Owner does not address it here; this argument is addressed in the parallel IPR2020-00722 Preliminary Response.

requirement of claim element 20[e]. Weaver Decl., Ex. 2013 ¶ 119. Indeed, *Campbell* lacks disclosure of “causation.”

First these control signals (tier and eligibility codes) relied on by Petitioner do not affect teletext or caption information (the second medium). Weaver Decl., Ex. 2013 ¶ 120. They do not *cause* execution of processor instructions to process data received in the second medium. *Id.* The fields in the eligibility word 200 provides a value to determine if the television program is displayed, not whether information in the VBI is processed. “A channel control word 200 is generated by PCS 50 to define the codes [such as tier code 202 and eligibility code 206] required for access to each television program being transmitted.” *Id.* (citing to *Campbell*, Ex. 1014 at 19:15-17). Petitioner itself states that codes it identified control the display of the television “programs,” which, according to the Petition, is the *first* medium. Petition at 63 (“... first medium, i.e., a picture and sound television medium.”); Reader Decl., Ex. 1004 ¶ 159 (same).

The control signal identified by the Petition has no effect on the data received in the second medium (teletext or captions). *Campbell* and *Millar* lack disclosure of the control signals (tier and eligibility codes) that “cause[s] execution of processor instructions to process data received in a second medium.” Weaver Decl., Ex. 2013 ¶ 121.

Second, the Petition points to a portion of the second medium information as the control signal (*Campbell's* tier and eligibility codes). But this means that by the time these codes are acted upon, the information in the second medium has already been processed to extract *these* codes. Weaver Decl., Ex. 2013 ¶ 122. For example, in *Campbell* FIG. 17, the receiver compares the subscriber's tier with tier enable code in step 322 with the eligibility code to the threshold in step 330, but to use the eligibility code, the receiver had to have already processed the data received in a second medium before that comparison, in step 318. *Id.* So, the processing of these codes (claimed control signal) cannot "cause[] execution of processor instructions to process data received in a second medium." *Id.*

- c. The *Campbell-Millar* Combination Does Not Disclose, Teach, or Suggest ". . . to create a series of discrete video images" in element 20[e]

Claim element 20[e] requires ". . . to create a series of discrete video images," which properly construed means to "bring into existence a series of discrete video images and not simply select or retrieve the series of discrete video images." *See* Section VII.C above. The captions and graphics that Petitioner points to as supposedly matching the "series of discrete video images" are transmitted to the receiver and are decoded by the receiver, but the receiver does not bring them into existence. *See* Weaver Decl., Ex. 2013 ¶ 123 (citing ¶¶ 109-110) above. *See also* arguments concerning "generate information . . ." in element 11[g] in Section

VIII.A.2.c above

B. *Campbell* in View of *Millar* in Further View of *Thonnart* Does Not Render Claims 11 and 16 Obvious

Petitioner introduces Ground 2, adding *Thonnart* to the *Campbell-Millar* combination as supposedly disclosing the “identify[ing] content of said second medium” limitation of claims 11 and 16.

Each of claims 11 . . . and 16. . . requires “identifying content of said second medium,” i.e., identifying the content of the caption information transmitted via their digital data signals. . . . Even if the Board finds that page information (including the “character code” in *Millar*) fails to identify the content of a second medium, this element nevertheless would have been obvious to a POSITA in view of *Thonnart*. (*Id.* ¶¶ 171-175.).

Petition at 62 (citations omitted)

As discussed above in Section V above, *Thonnart* is not prior art to claim 11 and 16. *See also* Weaver Decl., Ex. 2013 ¶ 125.

Irrespective of its prior art status, *Thonnart* does not disclose, teach, or suggest identify[ing] content of said second medium” required by claims 11 and 16. *Thonnart* does not disclose the step of “identifying content” by the receiver consistent with proper claim construction. Weaver Decl., Ex. 2013 ¶ 126.

Petitioner argues that *Thonnart*'s identifying information is used “to ensure that the

digital teletext information is transmitted ‘in a manner at least approximately synchronous with the corresponding information in the analog form,’ i.e. to ensure that the corresponding information aligns.” Petition at 62-63. Claims 11 and 16 require the identifying step to be performed by the receiver, not at the transmitter. Moreover, The Petition fails to point to any disclosure or teachings of “ascertaining or recognizing” “the substance or gist,” in contrast to form or structure in *Thonnart*. Weaver Decl., Ex. 2013 ¶ 126. If anything, *Thonnart*’s “synchronous transmission” and “alignment” speak to the “form or structure,” (not gist of substance). *Id.*

* * *

Even if the Board finds that *Thonnart* discloses this “identifying” step, the *Campbell-Millar-Thonnart* combination still fails to disclose, teach, or suggest two other limitations of claims 11 and 16 as discussed in Sections VIII.A.2.a (television medium signals including identifiers) and VIII.A.2.c above (generating information). Even if the Board gives every inference and benefit of doubt to the Petitioner, each independent claim 1, 11, 16, and 20 still recites limitations not found in the references forming the basis of Ground 1 and Ground 2.

IX. PATENT OWNER’S DISCLOSURES

Patent Owner hereby discloses that in addition to conception and reduction to practice documents, it is in possession of documents relating to secondary

considerations of non-obviousness of the challenged claims of the '217 Patent, including confidential license documents. Patent Owner reserves the right to rely on these documents if the Board institutes the proceeding.

X. CONCLUSION

As noted above, the issues raised in the Petition will be addressed in a District Court trial within four months of filing of this Preliminary Response. In addition, two of the cited references are not prior and also fail to disclose numerous elements of the challenged claims. The issues have also been previously considered by the Patent Office and by the Board on appeal. Accordingly, the Petition should be dismissed and trial should not be instituted.

Case No.: IPR2020-00723
Patent No: 7,747,217

Patent Owner's Preliminary Response

Respectfully submitted,

Date: June 25, 2020

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(b)(1), I hereby certify that the above Preliminary Response contains 13,869 words, excluding parts of the Preliminary Response exempted under § 42.24(a), as measured by the word-processing system used to prepare this paper.

Respectfully submitted,

Date: June 25, 2020

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CERTIFICATE OF SERVICE

I hereby certify that on June 25, 2020, a true and correct copy of
Personalized Media Communications, LLC's above Preliminary Response to
Petition for Inter Partes Review of U.S. Patent No. 7,747,217 was served via e-
mail upon Erika H. Arner, Daniel C. Cooley, Joshua L. Goldberg, Cory C. Bell,
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