Exhibit 2002 (Deposition Exhibit 2002C)
Zynga, Inc. v. Personalized Media Communications, LLC
Case IPR2013-00171 (SCM)

**PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 7,734,251**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the *Inter Partes* Review of U.S. Patent No. 7,734,251

Trial No.: Not Yet Assigned

Issued: June 8, 2010

Filed: June 6, 1995

Inventors: John Christopher Harvey, *et al.*

Assignee: Personalized Media Communications, LLC

Title: SIGNAL PROCESSING APPARATUS AND METHODS

**MAIL STOP PATENT BOARD**
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United States Patent & Trademark Office
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**PETITION FOR *INTER PARTES* REVIEW UNDER 37 C.F.R. § 42.100**

On behalf of Zynga Inc. ("Zynga" or "Petitioner") and in accordance with 35 U.S.C. § 311 and 37 C.F.R. § 42.100, *inter partes* review is respectfully requested for claims 17, 18, 19, 22, 23, 24 and 28 of U.S. Patent No. 7,734,251 ("the '251 Harvey Patent"), attached hereto as Exhibit 1001.

The undersigned representative of Petitioner authorizes the Patent Office to charge the $27,200 Petition Fee, along with any additional fees, to Deposit Account 501432, ref: 479204-620002. Seven claims are being reviewed, so no excess claim fees are required.

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# PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 7,734,251

## I. Introduction

The '251 Harvey Patent is currently being wielded by the patent owner, Personalized Media Communications, LLC ("PMC"), in an attempt to cover long-known computer programming and networking techniques that are far afield from the alleged invention described in the patent specification. (*See, Personalized Media Communications, LLC v. Zynga Inc.,* U.S. District Court for the Eastern District of Texas, Civil Action No. 2:12-cv-68-JRG.) PMC's aggressive litigation campaign is made possible by an overly-expansive claim scope that results from a long and tortured prosecution history dating back to an original filing in November 1981, and includes approximately 300 related applications filed in 1995 in an effort to extend the patent term well beyond what is justifiable.

Most of the near 300 applications filed in 1995, including the originally filed claims of the '251 Harvey Patent, were directed to television and radio technology, as described in the specification of the '251 Harvey Patent. Also related to television technology were most of the thousands of prior art references cited by the patent owner during prosecution, including a single IDS citing over 700 references.

Given this history, it is not surprising that the prior art considered by the Patent Office when examining the '251 Harvey Patent was directed to television technology. But the allowed claims, the subject matter of which was first added by amendment nearly four years after the '251 Harvey Patent was filed in 1995 and almost eighteen

years after its 1981 claimed priority date, are now being asserted against online computer gaming technology, in a way that extends far beyond the television technology disclosed in the specification of the '251 Harvey Patent and the prior art considered by the Patent Office. (*See, e.g.,* PMC Infringement Contentions against Zynga, attached as Ex. 1002.) This type of computer technology was well known before the 1981 priority date of the '251 Harvey Patent, as demonstrated by the teachings of the Hedges, Yamamoto, Frohbach, and Bakula references cited herein. Petitioner submits that had these more-relevant references been considered by the Patent Office during prosecution, at least claims 17, 18, 19, 22, 23, 24 and 28 of the '251 Harvey Patent would not have issued, and therefore this petition for *inter partes* review should be granted.

## II. Grounds for Standing Pursuant to 37 C.F.R. § 42.104(a)

Petitioner certifies that the '251 Harvey Patent is available for *inter partes* review and that Petitioner is not barred or estopped from requesting *inter partes* review challenging the patent claims on the grounds identified herein.

## III. Overview of the '251 Harvey Patent

The '251 Harvey Patent was filed on June 6, 1995 and issued on June 8, 2010. The '251 Harvey Patent claims priority to a series of continuation and continuation-in-part applications dating back to November 3, 1981. The '251 Harvey Patent includes 290 columns of specification, all detailing various examples of a system for adding

personalized content to a television or radio broadcast. For instance, the '251 Harvey Patent describes an example system for broadcasting a television program about stock market investing, "Wall Street Week." ('251 Harvey Patent, 11:19–14:47.)

Similarly, the claim that was originally filed with the '251 Harvey Patent in 1995 was also directed to television broadcast technology. It was not until the amendment of claim 91 and the addition of claim 93 in 1999 that claims bearing resemblance to issued independent claims 17 and 18 were first introduced in the application. (Ex. 1003, '251 File History, Supplemental Amendment dated March 4, 1999.) After pending for nearly ten years, the application was appealed to the Board of Patent Appeals and Interferences (BPAI) in February 2005. (Ex. 1004, Appeal Brief.)

On appeal, the BPAI allowed 29 claims over the prior art, and allowed 10 more claims following a request for rehearing by PMC. (Ex. 1005, Decision on Appeal dated March 23, 2009; *see also* Ex. 1006, Decision on Request for Rehearing dated June 26, 2009.) Among the claims allowed by the BPAI were independent claim 93, which issued as claim 18, and dependent claim 91, which was rewritten in independent form and issued as claim 17. (Ex. 1005, Decision on Appeal.) The primary reference considered by the Board (and the only anticipation reference considered) was the Japanese "Oono" teletext reference. (*Id.* at 28-41.) In accordance with its construction of terms, the Board made several findings with respect to the rejections over Oono. First, the Board found that the stored "user

specific subscriber datum" element (as recited in issued claim 18) was met by Oono's temporary memory storage of a user's teletext page selection. (*Id.* at 33-34.) According to the Board's construction, even a channel or menu selection by a user qualifies as subscriber specific data. (*Id.*) Second, the Board found that the "organizing information" claim element (as recited in issued claim 18) was met by Oono's serial reception of data bits and the simple collection of these bits into a byte format in memory. (*Id.* at 34-35.)

The Board concluded, however, that the step of "outputting information . . . based on said organized signal" (as recited in issued claim 18) was not present in Oono, because "Oono does not teach that the teletext data contains any signal that instructs the receiver to output a video presentation." (*Id.* at 36-37.) Although the teletext datastream disclosed in Oono included instructions that control the appearance of the display, the Board concluded that the display occurs automatically and thus is not "based on said organized signal." (*Id.*) The Board further concluded that Oono failed to disclose the step of "generating an image by processing . . . subscriber datum" (as recited in issued claim 18), because "Oono generates an image by processing teletext data sent to the terminal in response to user selection data, not by processing the user selection data." (*Id.* at 39.)

With respect to dependent claim 91 (issued claim 17), the Board concluded that the cited references failed to teach the claim limitation requiring that "audio . . .

describes information displayed in said video presentation." The Board reasoned that although the audio portion of a standard television program often describes what is happening in the video, standard television audio does not describe information in a video presentation that includes a locally generated image. (*Id.* at 80-81.)

## IV. Identification of Challenge Pursuant to 37 C.F.R. § 42.104(b)

### A. 37 C.F.R. § 42.104(b)(1): Claims For Which Inter Partes Review Is Requested

*Inter Partes* review is requested for claims 17, 18, 19, 22, 23, 24, and 28 of the '251 Harvey Patent.

### B. 37 C.F.R. § 42.104(b)(2): The Prior Art and Specific Grounds On Which The Challenge to the Claims Is Based

*Inter Partes* review is requested in view of the following prior art references:

- U.S. Patent No. 4,339,798 to Hedges ("Hedges") (Exhibit 1007). Hedges was filed on December 17, 1979, and issued on July 13, 1982. Hedges is therefore prior art to the '251 Harvey Patent under 35 U.S.C. § 102(e). Hedges was cited in an IDS by the applicant during prosecution of the Harvey '251 Patent, along with thousands of other references, but was not applied during prosecution.
- U.S. Patent No. 3,668,312 to Yamamoto ("Yamamoto") (Exhibit 1008). Yamamoto was filed April 2, 1970, and issued on June 6, 1972. Yamamoto is therefore prior art to the '251 Harvey Patent under 35 U.S.C. § 102(b).

- U.S. Patent No. 4,107,735 to Frohbach ("Frohbach") (Exhibit 1009). Frohbach was filed on April 19, 1977, and issued on August 15, 1978. Frohbach is prior art to the '251 Harvey Patent under 35 U.S.C. § 102(b). Frohbach was cited in an IDS by the applicant during prosecution of the Harvey '251 Patent, along with thousands of other references, but was not applied during prosecution.
- U.S. Patent No. 4,204,206 to Bakula ("Bakula") (Exhibit 1010). Bakula was filed on August 30, 1977 and issued on May 20, 1980. Bakula is therefore prior art to the '251 Harvey Patent under 35 U.S.C. § 102(b).

The statutory grounds under 35 U.S.C. 102 or 103 on which the challenge to the claims is based and the patents relied upon for each ground are as follows:

a) Claim 17 is unpatentable under 35 U.S.C. § 103(a) over Hedges in view of Yamamoto;

b) Claim 17 is unpatentable under 35 U.S.C. § 103(a) over Hedges in view of Yamamoto and Frohbach;

c) Claim 17 is unpatentable under 35 U.S.C. § 103(a) over Yamamoto in view of Bakula;

d) Claims 18, 19, 22-24, and 28 are anticipated by Hedges under 35 U.S.C. § 102(e);

e) Claims 18, 19, 22-24, and 28 are unpatentable under 35 U.S.C. § 103(a) over Hedges in view of Frohbach; and

f) Claims 18, 19, 22-24, and 28 are anticipated by Bakula under 35 U.S.C. § 102(b).

### C. 37 C.F.R. § 42.104(b)(3): Claim Construction

Pursuant to 37 C.F.R. § 42.100(b), and solely for the purposes of this review, Petitioner construes the claim language such that the claims are given their broadest reasonable interpretation in light of the specification of the '251 Harvey Patent. Petitioner submits that, for the purposes of this review, each claim be construed in accordance with its plain and ordinary meaning under the required broadest reasonable interpretation. The following claim terms have been construed by the BPAI during an appeal of the application that ultimately issued as the '251 Harvey Patent. For the purposes of this *inter partes* review only, Petitioner is adopting these prior constructions of the BPAI:

> **coordinated display:** "a display where the images used in the display are displayed dependent on a defined relationship between the content of the images... [M]erely superimposing a 'generated image,'...at a certain location on the display of the television program, where the generated image has no defined relationship to the content of the television program, is not 'a coordinated display using said generated image and said video image.'" (Ex. 1006, Decision on Request for Rehearing at 3-4.)

> **user specific:** "The term 'user specific' is broad enough to read on any information (or signal) that reflects something personal about a particular user, such as property ownership[] or capabilities, and implies no restriction on the number of users to whom the information (or signal) can be considered to be personal... 'User specific' data does not require that the

information be 'unique' or 'personal' to the user… Nor does 'user specific' data require any particular kind of data, such as numerical data as opposed to control data… Therefore, we conclude that any data entered by a user (subscriber) at a receiver station is 'user specific data' because the data is personal to the user even if other users can enter the same data." (Ex. 1005, Decision on Appeal at 17.)

**user specific subscriber datum:** "require[s] no more than data input by a user because that data is specific to that user. The data can be any kind of data, including control data… [A]ny data entered by a user (subscriber) at a receiver station is a 'user specific subscriber datum' because that data is personal to the user." (*Id.* at 34, 44.)

**generate:** "to bring into existence… Thus 'generate' requires more than just 'select' or 'retrieve.'" (*Id.* at 39.)

**locally generated:** "brought into existence at a particular location." (*Id.* at 18.)

**organize:** "to arrange in a desired pattern." (*Id.* at 21.)

**organizing information included in said at least one first discrete signal with information included in said second discrete signal to provide an organized signal at said receiver station:** "two or more bits (discrete signals) are 'organized' by being arranged in a buffer or register to cause a byte of data that is recognized by a computer as a character of data or a program instruction. Each bit has one bit of information." (*Id.* at 22.)

**organizing information in signals to provide an organized signal:** "requires that individual bits are assembled into a group, such as a byte, which is recognized by the computer." (*Id.* at 35.)

**generating an image by processing at least one user specific subscriber datum:** "requires that the datum influences the appearance of the image." (*Id.* at 38-39.)

Because the standard for claim construction at the Patent Office is different than that used during a U.S. District Court litigation, Petitioner expressly reserves the right to argue a different claim construction in litigation for any term of the '251 Harvey Patent as appropriate in that proceeding.

### D. 37 C.F.R. § 42.104(b)(4): How the Construed Claims are Unpatentable

A detailed explanation of how claims 17, 18, 19, 22, 23, 24, and 28 are unpatentable is set forth below at Section V.

### E. 37 C.F.R. § 42.104(b)(5): Supporting Evidence

An Appendix of Exhibits supporting this Petition is attached. Included at Exhibit 1011 is a Declaration of Charles J. Neuhauser, Ph.D under 37 C.F.R. § 1.68.

## V. There Is a Reasonable Likelihood That At Least One Claim of the '251 Harvey Patent Is Unpatentable

### A. Claim 17 is Obvious over Hedges (US 4,339,798) in view of Yamamoto (US 3,668,312)

The Hedges patent (Exhibit 1007) discloses "[a] remote gaming system for use with a wagering or gambling establishment such as a casino to enable a player's

participation in a selected one of a plurality of wagering games from a remote location." (Hedges, Abstract.) "The player station includes a live game display for displaying a selected one of a plurality of games being played at the croupier station, such as roulette or keno. The player station includes a changeable playboard for displaying a selected one of a plurality of wagering possibilities corresponding to a selected one of the plurality of games played at the croupier station." (*Id.*) A remotely displayed playboard is illustrated in Fig. 4, which includes fields to display the current state of a remote casino game and also includes fields for displaying items relative to the player's account, such as total credit remaining. (*Id.*, 4:5-13.)

The Yamamoto patent (Exhibit 1008) describes a television-telephone (*i.e.*, videophone) system that includes both a telephone handset and a display screen on which the user may input information using a light-pen. (Yamamoto, Fig. 1; 3:32-56.) As an example of how the system may be utilized, the Yamamoto patent describes a seat reservation service. Using the seat reservation service, an image of the available seats (*e.g.*, for an airplane, theater, etc.) is displayed on the system display screen, and the user may select an available seat using the light-pen. (*Id.*, 8:39-75.) This information is then transmitted to a remote computer, which responds to indicate on the display screen that the reservation has been confirmed. (*Id.*) In addition, the reservation service may also include a corresponding voice announcement, such as "your seat reservation has duly been completed." (*Id.*)

The preamble of claim 17 recites "[a] method for receiving and processing remotely originated and user specific data for use with a video apparatus, said video apparatus having an audio receiver and a video output device for displaying a video presentation comprising a locally generated image and an image received from a remote video source." Hedges discloses "[a] remote gaming system for use with a wagering or gambling establishment such as a casino to enable a player's participation in a selected one of a plurality of wagering games from a remote location." "The system includes a croupier station, a credit station and a player station remotely located from the croupier station and the credit station." (Hedges, Abstract.) The player station 10 (*i.e.*, a video apparatus) includes a remote gaming terminal (RGT) playboard 20 and a television monitor 21. (*Id.*, Fig. 1 and 2:66-3:22.)

The player station 10 disclosed in Hedges is a video apparatus that provides a video presentation including both a locally generated image (*i.e.*, the RGT playboard 20) and an image received from a remote video source (*i.e.*, the live game display on television monitor 21.) The RGT playboard 20 is locally generated at the player station by processor 41 shown in Fig. 2. (*Id.*, 8:61-9:2, "Referring now to FIG. 9, processor 41 of FIG. 2 is depicted in more detail… The firmware is interpreted by microprocessor 90 in the RGT to cause it to generate the appropriate playboard display, sense commands entered by the player, control the magnetic card reader, communicate with the credit station, and so forth.")

The player station (*i.e.*, said video apparatus) also includes a video monitor 21 that receives a remote video source from the croupier station. "The player station includes a live game display for displaying a selected one of a plurality of games being played at the croupier station, such as craps, roulette or keno." (*Id.*, Abstract.) As shown in Fig. 2, "the live game display 44 includes a remotely controlled color television monitor such as monitor 21 of FIG. 1, which is connected by a standard closed circuit TV coaxial cable system 22 as depicted in FIG. 1, which is in turn connected to TV cameras 12, 13 placed to monitor live wagering games in progress at a selected one of a plurality of croupier stations in the casino." (*Id.*, 3:23-29.)

Hedges discloses that the video monitor 21 in the player station receives an input from a standard closed circuit TV coaxial cable system. The video monitor 21 would therefore include an audio receiver. To the extent, however, that it may be determined that Hedges does not expressly disclose a video apparatus with an audio receiver, this is disclosed by Yamamoto. Specifically, Yamamoto discloses a television-telephone system that includes both a television display device 30, 31 for receiving and displaying video images and a telephone handset 11 (*i.e.*, an audio receiver) for receiving an audio signal. (Yamamoto, Fig. 1; Abstract; 3:32-52.)

The first element of claim 17 recites "receiving said user specific data at said video apparatus, said user specific data being specific to a user of said video apparatus." Hedges discloses that the player station 10 (*i.e.*, said video apparatus)

receives user specific data, including user input (to select a gaming playboard, make a wager, input identifying information using a magnetic card reader, etc.). In addition, Hedges further discloses that user-specific data may be received by the player station 10 (*i.e.*, said video apparatus) from the credit station 9, which stores information pertaining to the particular user's account. For instance, Hedges discloses that the monitor may display the user's total credit received from the credit station. (*See, e.g.*, Hedges, 8:65-9:2; 3:52-60; 4:34-36.)

The second element of claim 17 recites "contacting a remote data source after said step of receiving said user specific data." Hedges discloses the player station 10 contacting the credit station (*i.e.*, a remote data source) after receiving user specific data. For example, Hedges discloses that a player station 10 is activated by receiving user specific data from a magnetic card reader and user input, and then contacts the credit station 9 to authenticate the information and approve activation of the station. (*Id.*, 12:47-65.)

The third element of claim 17 recites "receiving from said remote data source based on said step of contacting said remotely originated data to serve as a basis for displaying said video presentation." Hedges discloses that, based on the player station 10 contacting the credit station 9 to activate a gaming playboard, the credit station 9 sends data (*i.e.*, remotely originated data) to the player station 10 for use in generating the playboard display (*i.e.*, for displaying said video presentation.) For example, after a

new game is activated on the player station 10, the credit station 9 sends commands to the player station 10 to clear the displays for a new game, sends the game results to the player station for display, and sends data to the player station 10 to update a display of the user's remaining credit. (*Id.*, 8:7-19; 13:16-19.)

The fourth element of claim 17 recites "executing processor instructions to process said remotely originated data and said user specific data at said video apparatus in order to generate said locally generated image, said locally generated image including at least some information content that does not include any information from said remote video source and said remote data source." Hedges discloses executing the RGT firmware (*i.e.*, processor instructions) at the player station to process remotely originated data from the credit station 9 and user specific data (*e.g.*, user input to the player station) to generate a gaming playboard 40 (*i.e.*, a locally generated image.) The gaming playboard 40 includes at least some information that is not received from the remote video source or from a remote source, such as the display of user input (*e.g.*, to select a wager) as well as the information included in the overall playboard layout (*e.g.*, the image of a roulette table as shown in Fig. 4). (*Id.*, 8:65-9:2; 3:40-45; 4:9-13.)

The fifth element of claim 17 recites "receiving, at said audio receiver, audio which described information displayed in said video presentation." Hedges discloses that the video monitor 21 in the player station receives an input from a standard closed circuit TV coaxial cable system. The video monitor 21 would therefore include an

audio receiver. (*Id.*, 3:23-29.) Further, the live closed circuit television feed to the video monitor 21 would include both the audio and video from the croupier station, and thus the received audio would describe what was being displayed in the video (*e.g.*, the sound of the dealers voice would describe the dealers actions in the video, the sound of a Roulette ball dropping would describe the visual image of the same, etc.). (*Id.*)

To the extent, however, that it may be determined that Hedges does not expressly disclose "receiving, at said audio receiver, audio which described information displayed in said video presentation this claim element," this claim element is disclosed by Yamamoto. Yamamoto discloses displaying a video image to a user for the purpose of making a seat reservation. In addition, Yamamoto discloses receiving and playing voice announcements that describe what is being displayed in the seat reservation image. For example, Yamamoto discloses displaying an image of available seats for user selection, and simultaneously receiving and playing a voice announcement that indicates the prices of the displayed seats. (Yamamoto, 8:39-75.)

The sixth element of claim 17 recites "simultaneously displaying said locally generated image and said image received from said remote video source at said video output device, wherein said at least some information content of said locally generated image is displayed." Hedges discloses that the player station 10 simultaneously displays the gaming playboard 20 (*i.e.*, said locally generated image) and the live video display 21 received from the croupier station (*i.e.*, an image received from said remote

video source.) As shown in Fig. 1, the gaming playboard 20 is displayed on a monitor (*see, e.g.*, monitor 60 in Fig. 3A) in the same station 10 as the video display 21 from the croupier station. The two images (*i.e.*, playboard 20 and video display 21) are simultaneously displayed by the player station 10. (Hedges, 13:60-62; 3:23-60.)

The final element of claim 17 recites "outputting said audio at said video apparatus before ceasing to display said locally generated video image." As detailed above with reference to the fifth element of claim 17, Hedges discloses that the video monitor 21 in the player station receives an input from a standard closed circuit TV coaxial cable system, and thus would include an audio output describing what was being displayed in the corresponding video (*e.g.*, the sound of the dealers voice would describe the dealers actions in the video, the sound of a Roulette ball dropping would describe the visual image of the same, etc.). (*Id.*, 3:23-29.)

To the extent, however, that it may be determined that Hedges does not expressly disclose "outputting said audio at said video apparatus before ceasing to display said locally generated video image," this claim element is disclosed by Yamamoto. Specifically, as detailed above with reference to the fifth element of claim 17, Yamamoto discloses displaying an image of available seats for user selection, and receiving and playing a voice announcement while the video image is being displayed. (Yamamoto, 8:39-54; 8:73-75.)

As demonstrated below, the combination of Hedges and Yamamoto discloses each and every limitation of claim 17 of the '251 Harvey Patent.

| |
|---|
| 17. A method for receiving and processing remotely originated and user specific data for use with a video apparatus, said video apparatus having an audio receiver and a video output device for displaying a video presentation comprising a locally generated image and an image received from a remote video source, said method comprising the steps of: |
| Hedges discloses this claim element. (*See* Ex. 1011, ¶¶ 42-53.)<br>"Referring now to FIG. 9, processor 41 of FIG. 2 is depicted in more detail… The firmware is interpreted by microprocessor 90 in the RGT to cause it to generate the appropriate playboard display, sense commands entered by the player, control the magnetic card reader, communicate with the credit station, and so forth." (Hedges, 8:61-9:2.)<br>"The player station includes a live game display for displaying a selected one of a plurality of games being played at the croupier station, such as craps, roulette or keno." (Hedges, Abstract.)<br>"[T]he live game display 44 includes a remotely controlled color television monitor such as monitor 21 of FIG. 1, which is connected by a standard closed circuit TV coaxial cable system 22 as depicted in FIG. 1, which is in turn connected to TV cameras 12, 13 placed to monitor live wagering games in progress at a selected one of a plurality of croupier stations in the casino." (Hedges, 3:23-29.) |
| receiving said user specific data at said video apparatus, said user specific data being specific to a user of said video apparatus; |
| Hedges discloses this claim element. (*See* Ex. 1011, ¶¶ 54-58.)<br>"For example, the playboard allows wagering on games such as craps, roulette and keno. The use of several playboards, one for each game, would be expensive, cumbersome, and confusing to a player, and as a result the playboard depicted in FIGS. 3A and 3B allows for a plurality of games to be rapidly and automatically changed by a processor means 41 of FIG. 2 when it receives a command from the player that a new game has been selected." (Hedges, 3:52-60.)<br>"A player touching what appears to be colored blocks such as to place a bet on a particular number in roulette in FIG. 4 will actually press a corresponding overlay depress point 70 of FIG. 3B." (Hedges, 4:34-36.)<br>"In FIG. 8, the authenticator 43 includes a magnetic card reader 87 (typically AMP-210) which scans magnetically encoded data on a plastic card." (Hedges, 5:9-11.) |

"Display monitor 60 also displays items relative to the player's account such as total credit remaining and items pertinent to the game such as wagering limits, payoff odds, and time remaining in which to enter a bet." (Hedges, 4:9-13.)

"Credit station 9 sends the message to player station 10 indicating a new account balance which is displayed on the playboard 40 of FIG. 2." (Hedges, 13:60-62.)

*See also* Hedges, 8:61-9:2, reproduced above with respect to "Preamble" element.

contacting a remote data source after said step of receiving said user specific data;

Hedges discloses this claim element. (*See* Ex. 1011, ¶¶ 59-60.)

"The player enters the authentication number on the playboard 40 and if correct the software accepts authentication of the player. The terminal then sends the identification and authentication to the credit station 9 of FIG. 1, which searches its directory on disk 202 for the location on file with the correct *ID*. . . . After some numbers of retrials, credit station 9 notifies the credit operator via CRT 204 of FIG. 11 and an audible alarm." (Hedges, 12:47-65.)

receiving from said remote data source based on said step of contacting said remotely originated data to serve as a basis for displaying said video presentation;

Hedges discloses this claim element. (*See* Ex. 1011, ¶¶ 61-63.)

"Referring now to FIG. 11, the credit station 9 of FIG. 1 is depicted in more detail. The credit station performs the following functions in the system:

1. Issues credit cards to users.
2. Establishes user accounts.
3. Verifies authentication of the player station users.
4. Accepts command from users through a player station to
   (a) select game;
   (b) place wager.
5. Accepts game results from croupier station.
6. Posts results to user's account.
7. Sends results to player station for display to user."

(Hedges, 8:7-19.)

"The croupier station 11 sends the start message to the credit station 9 which also sends commands to the player station 10 to clear the displays for a new game." (Hedges, 13:16-19.)

"Credit station 9 sends the message to player station 10 indicating a new account balance which is displayed on the playboard 40 of FIG. 2." (Hedges, 13:60-62.)

executing processor instructions to process said remotely originated data and said user specific data at said video apparatus in order to generate said locally generated image, said locally generated image including at least some information content that does not

| include any information from said remote video source and said remote data source; |
| --- |
| Hedges discloses this claim element. (*See* Ex. 1011, ¶¶ 64-67.)<br>"The playboard 40 of FIG. 2 is depicted in more detail in FIGS. 3A and 3B and includes means for displaying the wagering possibilities as well as the results of the game, means to accept the wagers intended by the player and means to interface the playboard with the processor 41 of FIG. 2." (Hedges, 3:40-45.)<br>*See also* Hedges, 4:9-13, reproduced above for "receiving ... user specific data" limit, and Hedges, 8:61-9:2, reproduced above for "Preamble" element. |
| receiving, at said audio receiver, audio which describes information displayed in said video presentation; |
| Yamamoto discloses this claim element. (*See* Ex. 1011, ¶¶ 68-75.)<br>"FIG. 7 shows an embodiment of a picture image used in case of a seat reservation service. The seat to be reserved may be any kind such as a ship, airplane, train, theater, etc... In this figure the hatched or black seats 37 are the reserved seats. By a voice announcement, prices of the available seats may be transmitted to the subscribers, then voice announcement, such as 'please indicate by your light-pen the seat which you want to reserve,' is transmitted, or this announcement may be visually displayed on a part of the displayed picture." (Yamamoto, 8:39-54.)<br>"He may also receive a voice announcement, such as 'your seat reservation has duly been completed' and the call may be terminated." (Yamamoto, 8:73-75.) |
| simultaneously displaying said locally generated image and said image received from said remote video source at said video output device, wherein said at least some information content of said locally generated image is displayed; and |
| Hedges discloses this claim element. *See supra* discussing disclosure of this claim element in Hedges, and *see* Ex. 1011, ¶¶ 76-77. |
| outputting said audio at said video apparatus before ceasing to display said locally generated video image. |
| Hedges and Yamamoto disclose this claim element. *See supra* discussing disclosure of this claim element in Hedges and Yamamoto and *see* Ex. 1011, ¶¶ 78-79. |

Motivation to Combine

One of ordinary skill in the art would be motivated to consider both Hedges and Yamamoto because they are both related to displaying user-configurable information at a station in a distributed computer system. The person of ordinary skill in the

computing arts would be motivated to combine Hedges and Yamamoto for many reasons, such as to supplement the teachings of Hedges regarding the use of a user interface (*i.e.*, the gaming playboard) for receiving user commands for making wagers or otherwise entering data pertaining to an electronic gambling transaction with the teachings of Yamamoto that such a user interface may be improved by providing an audio message to confirm user input for an electronic transaction. (*See* Ex. 1011, ¶ 80.)

Because the combination of Hedges and Yamamoto teaches all of the limitations of claim 17, claim 17 of the '251 Harvey Patent is obvious based on Hedges in view of Yamamoto and is unpatentable under 35 U.S.C. § 103(a).

### B. Claim 17 is Obvious over Hedges in view of Yamamoto and Frohbach (US 4,107,735)

As set forth above in Section V.A, Petitioner submits that each and every element of claim 17 is disclosed by the combination of Hedges and Yamamoto. To the extent, however, that it may be determined that Hedges does not disclose "simultaneously displaying said locally generated image and said image received from said remote video source at said video output device" because Hedge's locally generated image (*i.e.*, game playboard) and image received from a remote video source (*i.e.*, live game video) are displayed on different monitors, albeit simultaneously, this element is obvious in view of Frohbach. (*See* Ex. 1011, ¶¶ 81-86.)

Frohbach discloses a television audience survey system in which a television viewer enters input to a remote control device 15 to provide viewer reaction to the

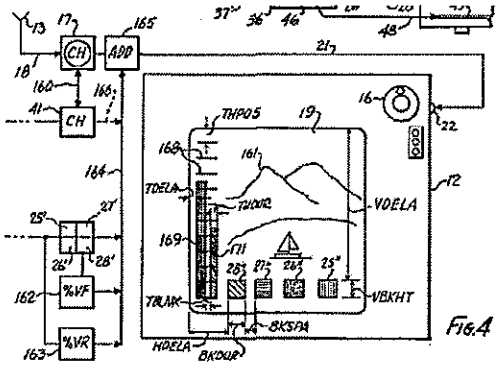
television broadcast being displayed. (*See, e.g.,* Frohbach, 6:17-24; 7:20-28 ("The system 10… also includes a second manually actuable device 24 located in the remote control 15… The device may have a keyboard or other manually actuable input means for receiving television viewer reactions to broadcasts displayed by the television set 12 on the video tube or screen 19.")) The viewer input is transmitted to a television broadcast facility, where it is combined with other viewer inputs to generate a pictorial representation (*i.e.*, a locally generated image) of the overall reaction of the participating viewers. (*Id.*, 8:9-24; 12:4-11; 14:60-64 ("The data issued at 25' to 28', 162, 163 [*i.e.*, each received viewer reaction] is applied via leads 164 to a facility 165 which adds such data or corresponding signals to the composite video signal for display by the monitor set 12.")) The pictorial representation of the viewer reactions is then transmitted to the viewers' television sets along with the corresponding television broadcast:

> As shown in FIG. 4, there may be provided a display 161 of a broadcast video program. … In accordance with a preferred embodiment of the subject invention, a visual graduation system, such as scale 168 may be displayed on the screen 19 in part of the display 161. A pictorial representation 169 of the relative number of responding sets or viewers may then be displayed within the visible graduation system 168 such as in the form of a band the height of which is adjusted relative to the scale in terms of the mentioned number of responding sets or viewers.
>
> Similarly, and with reference to the block 162, a pictorial representation 171 of an extreme viewer reaction may be displayed in the graduation

system 168, such as in the form of a band the height of which is adjusted relative to the scales 168 in terms of magnitude of received extreme viewer reaction.

By way of example, the extreme viewer reaction may be applause as registered, for instance, via buttons 28 at various sets, or an extremely unfavorable viewer reaction, such as would be registered through actuation of zap buttons 25 described above. (Frohbach, Fig. 4; 15:7-33)

Fig. 4 of Frohbach (reproduced below) illustrates an example where the pictorial representation of viewer reaction is generated in the form of two graduated bar graphs 169, 171 that are overlaid on the television broadcast 19.




Frohbach thus discloses simultaneously displaying a generated image (*i.e.*, the pictorial representation of viewer reaction) and an image from a remote video source (*i.e.*, the television broadcast) on a single video output device.

Motivation to Combine

One of ordinary skill in the art would be motivated to consider both Hedges and Frohbach because they are both related to systems for displaying information derived

from user input to a distributed system. The person of ordinary skill in the computing arts would be motivated to combine Hedges and Frohbach for many reasons, such as to supplement the teachings of Hedges regarding the display of a generated gaming playboard and a live game video on separate monitors with Frohbach's teaching of including a live television broadcast and a generated pictorial representation of viewer reaction on the same television display. (*See* Ex. 1011, ¶ 87.)

Because the combination of Hedges, Yamamoto and Frohbach teaches all of the limitations of claim 17, claim 17 of the '251 Harvey Patent is obvious over Hedges in view of Yamamoto and Frohbach and is unpatentable under 35 U.S.C. § 103(a).

### C. Claim 17 is Obvious over Yamamoto in view of Bakula (US 4,204,206)

As explained in further detail below, with respect to limitations (1) – (7) of claim 17, Yamamoto discloses a videophone system including an "information receiving device" (*i.e.*, a video apparatus) for receiving and processing remotely originated data and user specific data. The information receiving device includes a telephone handset 11 (*i.e.*, an audio receiver) and a cathode ray tube (CRT) (*i.e.*, a video output device) for displaying a video presentation including a locally generated image and an image received from a remote video source.

The first element of claim 17 recites "receiving said user specific data at said video apparatus, said user specific data being specific to a user of said video apparatus." Yamamoto discloses that the information receiving device receives user

specific data, including user input received via a light-pen device. The light-pen device allows a user to make a selection of an option displayed on the screen (*e.g.*, to select a seat on an plane) and is therefore "specific to a user" of the video apparatus. (Yamamoto, 8:54-61.)

The second element of claim 17 recites "contacting a remote data source after said step of receiving said user specific data." Yamamoto discloses that the information receiving device contacts a remote computer 100 (*i.e.*, a remote data source) after receiving the user specific data. Yamamoto discloses that the video apparatus receives the user specific data via the light-pen and then contacts the remote computer 100 in order to transmit the user specific data to the remote computer 100. (*Id.*, 9:22-35.)

The third element of claim 17 recites "receiving from said remote data source based on said step of contacting said remotely originated data to serve as a basis for displaying said video presentation." Yamamoto discloses that in response to the contacting (*i.e.*, "based on said step of contacting"), the remote computer 100 sends information content and a controlling signal (*i.e.*, "remotely originated data") to the information receiving device. The received information content and controlling signal are used to generate the locally generated image of the display and thus "serve as a basis for displaying said video presentation." (*Id.*, 8:61-73.)

The fourth element of claim 17 recites "executing processor instructions to process said remotely originated data and said user specific data at said video apparatus

in order to generate said locally generated image, said locally generated image including at least some information content that does not include any information from said remote video source and said remote data source." Yamamoto discloses that an "image signal producing device" of the information receiving device processes the information content and controlling signal from the remote computer 100 (*i.e.*, "executes processor instructions to process said remotely originated data") to generate the locally generated image. For example, "a converting circuit 82" of the image signal producing device processes the controlling signal (*i.e.*, "execut[es] processor instructions") to convert the information content into an image signal that is displayed on the CRT. (*Id.*, 6:19-44.)

Processor instructions are also executed to process "said user specific data at said video apparatus in order to generate said locally generated image." For example, in order to generate a signal indicating the position of the light-pen on the display screen, processor instructions are executed to process the light-pen input (*e.g.*, a pulse shaping circuit 64 receives the light-pen input and executes processor instructions to apply necessary amplification and wave form shaping to generate a pulse "d" that is further processed to produce a position indicating signal that can be interpreted by the remote computer 100). (*Id.*, 5:53-75.) Because the generation of the position indicating signal is necessary for generating the locally generated image, the processor instructions are executed "in order to generate said locally generated image." Further, the locally

generated image includes at least some information content that "does not include any information from said remote video source or said remote data source." For example, the selection of the particular seat to be reserved is information content generated from the user specific data at the information receiving device and does not include information from the remote video source and the remote data source.

To the extent, however, that it may be determined that Yamamoto does not expressly disclose "executing processor instructions to process said remotely originated data and said user specific data at said video apparatus in order to generate said locally generated image, said locally generated image including at least some information content that does not include any information from said remote video source and said remote data source," this claim element is disclosed by Bakula.

Bakula discloses an editor terminal including a dual screen mode for displaying multiple elements from one or more input sources simultaneously. The input sources include a host computer HC (*i.e.*, a "remote data source") and various data input sources DIS (*i.e.*, "remote video source[s]"). (Bakula, Fig. 1.) "User specific data" is received at the editor terminal and stored in a programmable read only memory (PROM). The user specific data includes user-specified fonts and enhancement characters that may be applied to text at the editor terminal. (*Id*, 22:22-29.) The editor terminal requests a news story stored in a database DBS by contacting the host computer HC. (*Id.*, 5:14-20.) Based on the contacting, the editor terminal receives data

representing the text of the requested news story (*i.e.*, "remotely originated data to serve as a basis for displaying the video presentation") from the host computer HC. (*Id.*, 5:20-28.)

A locally generated image is generated at the editor terminal. The locally generated image is an image comprising the requested news story rendered on a display device of the editor terminal. To generate the locally generated image, processor instructions are executed to process the data representing the text of the requested news story and the user-specified fonts and enhancement characters (*i.e.*, "to process said remotely originated data and said user specific data") at a character generator of the editor terminal. (*Id.*, 5:14-40; 6:5-23; 24:67-25:17.) The locally generated image includes "at least some information content that does not include any information" from the data input sources DIS (*i.e.*, the remote video source) and the host computer HC (*i.e.*, the remote data source). For example, the user-specified enhancement characters are stored locally in the enhancement matrix PROM 426 and are not from either of the remote sources. (*Id.*, 22:22-29.)

The fifth element of claim 17 recites "receiving, at said audio receiver, audio which describes information displayed in said video presentation." Yamamoto discloses that a telephone handset (*i.e.*, an audio receiver) receives audio that describes information displayed in the video presentation. For example, when the user has successfully reserved his or her seat, the audio may describe that the reservation has

been completed, such that the audio corresponds to an image on the screen showing the reservation. (Yamamoto, 8:72-75.)

The sixth element of claim 17 recites "simultaneously displaying said locally generated image and said image received from said remote video source at said video output device, wherein said at least some information content of said locally generated image is displayed." Yamamoto discloses that the video apparatus simultaneously displays a picture image 31 from a "remote video source" (*e.g.*, an image indicating the availability of seats on an airplane) and the "black image" showing the seat reserved by the user (*i.e.*, "said locally generated image"). (*Id.*, 8:39-49.) The remote video source for the picture image 31 may be, for example, a remote "video tape recorder" 84. (*Id.*, 6:34-39.) Because the "black image" is displayed on the CRT, "at least some information content of said locally generated image" is included in the video presentation.

The final element of claim 17 recites "outputting said audio at said video apparatus before ceasing to display said locally generated video image." Yamamoto discloses that the outputting of the audio describing the seat reservation occurs contemporaneously with the display of the black image showing the reserved seat (*i.e.*, "said locally generated video image"). (*Id.*, 8:72-75.) The audio is thus output "before ceasing to display said locally generated video image."

As demonstrated below, the combination of Yamamoto and Bakula discloses each and every limitation of claim 17 of the '251 Harvey Patent.

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| 17. A method for receiving and processing remotely originated and user specific data for use with a video apparatus, said video apparatus having an audio receiver and a video output device for displaying a video presentation comprising a locally generated image and an image received from a remote video source, said method comprising the steps of: |
| Yamamoto discloses this claim element. *See supra* discussing disclosure of this claim element in Yamamoto, and see below with respect to elements (1) – (7) of claim 17. *See also* Ex. 1011, ¶¶ 97-99. |
| receiving said user specific data at said video apparatus, said user specific data being specific to a user of said video apparatus; |
| Yamamoto discloses this claim element. (*See* Ex. 1011, ¶¶ 100-101.)<br>"If the subscriber wants to have reservation at the seat indicated by 38, he needs just to indicate the corresponding position 34 by his light-pen 40. Then the position indicating signal as explained above and containing the position information in the picture and having a wave form, such as shown in FIG. 2 e, is sent out from the subscriber's set in a manner described already. The electronic computer 100 located at the exchange or information center receives and processes said signal *e*, and the position indicating information is identified." (Yamamoto, 8:54-64.) |
| contacting a remote data source after said step of receiving said user specific data; |
| Yamamoto discloses this claim element. (*See* Ex. 1011, ¶¶ 102-103.)<br>"Accordingly, by positioning his light-pen at a desired point 34 corresponding to a desired seat, the position indicating information is sent back to the computer, and the subscriber may confirm the reservation by information further supplied from the computer." (Yamamoto, 9:22-35.)<br>*See also* Yamamoto 8:54-64, reproduced above for "receiving said user specific data" element. |
| receiving from said remote data source based on said step of contacting said remotely originated data to serve as a basis for displaying said video presentation; |
| Yamamoto discloses this claim element. (*See* Ex. 1011, ¶¶ 104-105.)<br>"The computer 100 responds to the received selecting information, and if a pattern or a picture is to be sent according to a predetermined program, it sends out an instruction to a video signal producing device 80, mainly consisting of a video memory device 81, via data controlling lines 104 and 105. In this respect, the |

computer 100 sends out data containing the information content and the associated controlling signal to the video memory device 81, which comprises, for instance, magnetostriction type delay lines, so as to store the content of the picture in the memory device. The memorized information content is converted into a video image signal by a converting circuit 82." (Yamamoto, 6:19-44.)

"The computer may also send a controlling signal to the memory device and the image signal producing device used to produce the image pattern shown in FIG. 7, whereby the controlling signal converts the seat 38 which was indicated by the light-pen into a black image showing the reserved situation. Under this control the information requesting subscriber can observe the conversion of the seat 38 into black level, and he can confirm visually his reservation." (Yamamoto, 8:61-73.)

executing processor instructions to process said remotely originated data and said user specific data at said video apparatus in order to generate said locally generated image, said locally generated image including at least some information content that does not include any information from said remote video source and said remote data source;

Yamamoto and Bakula disclose this claim element. *See supra* discussing "receiving . . . remotely originated data" claim element, and *see* Ex. 1011, ¶¶ 106-110.

"The data characters stored in main memory are read and routed to the character generator where the data characters are decoded to obtain the proper video dot pattern for display on the CRT screen. ... This circuit operates in response to control signals from the character generator CG and fetches data from the memory with the data then being supplied to the character generator by way of a data bus DB. The data received by the character generator is then employed to provide video patterns representative of data characters for display on the cathode ray tube CRT." (Bakula, 5:14-40.)

"The character generator provides to the video amplifier a serial bit stream which corresponds to vertical display raster columns. As will be brought out in greater detail hereinafter, each character is displayed within a 12x15 dot matrix. The dot matrix hereinafter will be referred to in terms of pixels (picture elements). ... Consequently, the video stream as sent to the video amplifier is enhanced or altered by the character generator as required to achieve the proper modified display." (Bakula, 6:5-23.)

"In addition to providing enhancement characters, the programmable enhancement PROM 426 may store different fonts of characters which differ from those in the character matrix PROM 424 for purposes of overstriking a data character from PROM 424 with additional visual graphics. ... Various combinations of graphics may be stored in matrix PROM 426 for use in overstriking selected characters obtained from PROM 424." (Bakula, 24:67-25:17.)

receiving, at said audio receiver, audio which describes information displayed in said video presentation;

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| Yamamoto discloses this claim element. (*See* Ex. 1011, ¶¶ 111-112.)<br>"In FIG. 1, 10 is a telephone set of a television telephone subscriber B, 11 is a handset and 12 is a selecting signal sending equipment, for instance, shown in the form of a push button type. ... The subscriber B can effect the desired selection by sending out, for instance, multifrequency audio signal m by means of the selecting signal sending equipment 12, and he can make necessary communication by voice through the handset 11." (Yamamoto, 3:32-43.)<br>"He may also receive a voice announcement, such as 'your seat reservation has duly been completed' and the call may be terminated." (Yamamoto, 8:72-75.) |
| simultaneously displaying said locally generated image and said image received from said remote video source at said video output device, wherein said at least some information content of said locally generated image is displayed; and |
| Yamamoto discloses this claim element. (*See* Ex. 1011, ¶¶ 113-114.)<br>"FIG. 7 shows an embodiment of a picture image used in case of a seat reservation service. The seat to be reserved may be any kind such as a ship, airplane, train, theater, etc. Assuming that a television telephone subscriber made an information call in order to confirm the situation of the reservation of the seats of a concert on a particular occasion, a picture image 31 shown in FIG. 7 may be received. In this figure the hatched or black sheets 37 are the reserved seats. By watching this picture the condition of the reservation may instantaneously be observed by the subscriber." (Yamamoto, 8:39-49.)<br>"If a moving picture or an image varying with the progress of time is to be supplied to the information requesting subscriber, the computer sends out a controlling signal to a video tape recorder 84 via a command line 106 to send out a prerecorded composite image signal." (Yamamoto, 6:34-39.)<br>*See also* Yamamoto, 8:61-73, reproduced above with respect to "receiving from said remote data source" claim element. |
| outputting said audio at said video apparatus before ceasing to display said locally generated video image. |
| Yamamoto discloses this claim element. *See supra* discussing "receiving . . . audio" claim element, and *see* Ex. 1011, ¶¶ 115-117. |

Motivation to Combine

One of ordinary skill in the art would be motivated to consider both Yamamoto and Bakula because they are both related to displaying user-configurable information in

a distributed computer system. The person of ordinary skill in the computing arts would be motivated to combine Yamamoto and Bakula for many reasons, such as to supplement the teachings of Yamamoto regarding display of images at a user terminal with the teachings of Bakula that such images may be generated locally at the user terminal by processing user-specific data stored at the terminal (*e.g.*, user-specified image enhancements) along with remotely originated data that includes data representing the image to be displayed. The person of ordinary skill would be further motivated to supplement the system of Yamamoto with the local generation of images described in Bakula, because Yamamoto discloses a character generating device similar to the one disclosed in Bakula. (Yamamoto, 6:39-44.) (Ex. 1011, ¶¶ 118-121.)

Because the combination of Yamamoto and Bakula teaches all of the limitations of claim 17, claim 17 of the '251 Harvey Patent is obvious over Yamamoto in view of Bakula and is unpatentable under 35 U.S.C. § 103(a).

### D. Claims 18, 19, 22, 23, 24 and 28 are Anticipated by Hedges

#### 1. Claim 18

The preamble of claim 18 recites "[a] method of outputting a video presentation at a receiver station." Hedges discloses "[a] remote gaming system for use with a wagering or gambling establishment such as a casino to enable a player's participation in a selected one of a plurality of wagering games from a remote location." (Hedges, Abstract.) "The player station includes a live game display for displaying a selected

one of a plurality of games being played at the croupier station, such as roulette or keno. The player station includes a changeable playboard for displaying a selected one of a plurality of wagering possibilities corresponding to a selected one of the plurality of games played at the croupier station." (*Id.*) The player station disclosed in Hedges is thus a receiver station that outputs a video presentation.

The first element of claim 18 recites "receiving at least one information transmission at said receiver station, said at least one information transmission including a first discrete signal and a second discrete signal." As detailed above in Section IV.C, the broadest reasonable interpretation of this claim element, as expressed by the BPAI, requires at least the receipt of an information transmission that includes two or more bits (discrete signals.) The player station 10 in Hedges receives multiple types of information transmissions that include two or more bits of information, including user input (to select a gaming playboard, make a wager, change the amount of a wager, etc.) as well as information transmissions from the credit station (such as the amount of credit remaining, game results, etc.) For instance, Hedges discloses receiving user input (*i.e.*, first and second discrete signals) to "increase, decrease, or otherwise change or make multiple wagers until the 'NO MORE BETS' signal is displayed on the playboard 40." (Hedges, 13:37-39.)

Hedges further discloses that user input to the player station 10 (*e.g.*, to increase or decrease a wager) may be made using a touch sensitive keyboard that operates by

detecting when a user touches a depress point 70 on the screen. The pressing of a depress point 70 on the screen is detected by scanning the rows and columns in a matrix of cross points on the touch sensitive screen, generating both a column scan signal (*i.e.*, a first discrete signal) and a row scan signal (*i.e.*, a second discrete signal) to encode the position of the player's touch on a data bus. (*Id.*, 4:28-62.)

The second element of claim 18 recites "detecting said first discrete signal and said second discrete signal in said at least one information transmission." As detailed above with reference to the first element of claim 18, Hedges discloses detecting a user input to a touch screen display by scanning the rows and columns in a matrix of cross points on the touch sensitive screen, generating both a column scan signal (*i.e.*, a first discrete signal) and a row scan signal (*i.e.*, a second discrete signal) to encode the position of the player's touch on a data bus. The row and column scan signals are detected by a keyboard controller 73 in order to determine the position of the user's touch on the screen. (*Id.*, 4:28-62.)

The third element of claim 18 recites "passing said detected at least one first discrete signal and said second discrete signal to at least one processor." As detailed above with reference to the first element of claim 18, when the keyboard controller 73 in Hedges detects a touch on the touch sensitive keypad, an interrupt signal is sent to processor 41, which then reads the encoded position of the player's touch (*i.e.*, the row and column scans) from the data bus. (*Id.*, 4:53-62.) Hedges thus discloses passing

first and second discrete signals (*e.g.*, the row and column scans) to at least one processor (*e.g.*, processor 41.)

The fourth element of claim 18 recites "organizing information included in said at least one first discrete signal with information included in said second discrete signal to provide an organized signal at said receiver station." As detailed above in Section IV.C, the broadest reasonable interpretation of this claim element, as expressed by the BPAI, "requires that individual bits are assembled into a group, such as a byte, which is recognized by the computer." Hedges discloses that the processor 41 organizes the bits of information in the row and column scans in order to interpret the position of a player's touch and generate particular game commands. (*Id.*, 4:63-5:2.)

The fifth element of claim 18 recites "generating an image in response to said organized information by processing at least one user specific subscriber datum, said at least one user specific subscriber datum being stored at said receiver station prior to said step of organizing and based on information supplied by a user of said receiver station, said generated image including at least some information content that does not include any information from said discrete signals." Hedges discloses generating an image on a gaming playboard in order to display the amount of a player's wager. The current wager amount, as displayed on the playboard, is stored in RAM 92 by the system processor. (*Id.*, 9:60-10:1.) As described above, Hedges further discloses receiving a user input via a touch screen display that generates a command (*i.e.*,

organized information) to increase or decrease the amount of the wager. In response to such a command, the RGT firmware processor instructions are executed to process the command to increase or decrease the wager and to process the wager amount stored in RAM 92 (*i.e.*, user specific subscriber datum being stored at said receiver station) in order to increase or decrease the wager amount displayed on the gaming playboard 40. (*Id.*, 13:24-39; 8:61-64; 9:60-10:1.)

Further, in the above example, the displayed wager amount (*i.e.*, said generated image) includes information content (*i.e.*, the new wager amount) that does not include any information from the discrete signals (*i.e.*, the row and column scans.) The row and column scans (*i.e.*, the discrete signals) include information to indicate a position on the touch screen display. Moreover, a command to increase or decrease a wager does not include information content relating to the displayed wager amount; it only includes information indicating an amount by which the wager amount is incremented or decremented. (*See id.*)

The final element of claim 18 recites "outputting said video presentation to said user, said video presentation comprising, firstly, a video image and, secondly, a coordinated display using said generated image and said video image, wherein said at least some information content of said generated image is displayed." As detailed above, Hedges discloses a player station that includes both a changeable playboard (*i.e.*, the generated image) and a live game display (*i.e.*, a video image) for displaying a

selected one of a plurality of games being played at the croupier station, such as roulette or keno. As shown in Fig. 2, "the live game display 44 includes a remotely controlled color television monitor such as monitor 21 of FIG. 1, which is connected by a standard closed circuit TV coaxial cable system 22 as depicted in FIG. 1, which is in turn connected to TV cameras 12, 13 placed to monitor live wagering games in progress at a selected one of a plurality of croupier stations in the casino." (*Id.*, 3:23-29.) Hedges thus discloses a video presentation that includes a video image (*i.e.*, the live game display.)

Further, the combination of the live game display 44 and the game playboard 40 provides a coordinated display because images in the game playboard 40 have a defined relationship with the live game display 44. For example, Hedges discloses that the game playboard 40 may include a field that displays the amount of time remaining until wagering is closed. (*Id.*, Fig. 4; 4:4-13.) This field of the game playboard 40 is controlled by the dealer at the croupier station and has a defined relationship with the live game because it tracks the time remaining to enter a wager on the live game currently being displayed.

As demonstrated below, Hedges discloses each and every limitation of claim 18 of the '251 Harvey Patent.

| 18. A method of outputting a video presentation at a receiver station, said method comprising the steps of: |
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| Hedges discloses this claim element. *See supra* discussing disclosure of this claim element in Hedges, and *see* Ex. 1011, ¶¶ 123-124. |

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| receiving at least one information transmission at said receiver station, said at least one information transmission including a first discrete signal and a second discrete signal; |
| Hedges discloses this claim element. (*See* Ex. 1011, ¶¶ 125-128.)<br>"In FIG. 3B, the playboard also includes a touch sensitive keyboard which may take one or several forms. … A player touching what appears to be colored blocks such as to place a bet on a particular number in roulette in FIG. 4 will actually press a corresponding overlay depress point 70 of FIG. 3B. The cross points are periodically scanned at a high rate by a keyboard controller 73 such as Intel's 8278. …<br>Bus 77 is a 4-bit bus which scans display digits and provides a column scan to keyboard controller 73 via a 4 to 16 decoder 72. Bus 78 is a 3-bit bus used to multiplex the row return line back to controller 73 via analog multiplexer 75, analog detector 74 and buses 79, 55, which is an input from multiplexer 75 to indicate whether the key currently being scanned is closed. ...<br>When a player touches a cross point, the capacitance of transparent conductor 70 is changed, which is sensed by keyboard controller 73, which notes the position of the player's touch and informs processor 41 of FIG. 2 that a new command is being generated by the player. This is done by generating a suitable logic level on an interrupt line to processor 41 which reads the encoded position of the player's touch by sending a read command to the keyboard controller 73 places on a data bus." (Hedges, 4:28-62.) |
| detecting said first discrete signal and said second discrete signal in said at least one information transmission; |
| Hedges discloses this claim element. *See supra* discussing disclosure of this claim element in Hedges, and *see* Ex. 1011, ¶¶ 129-130. |
| passing said detected at least one first discrete signal and said second discrete signal to at least one processor; |
| Hedges discloses this claim element. *See supra* discussing disclosure of this claim element in Hedges, and *see* Ex. 1011, ¶¶ 131-132. |
| organizing information included in said at least one first discrete signal with information included in said second discrete signal to provide an organized signal at said receiver station; |
| Hedges discloses this claim element. (*See* Ex. 1011, ¶¶ 133-137.)<br>"To change from one game to another, only the display on monitor 60 need be changed. For each game, the display is generated so that the displayed blocks always underlie matrix cross points 70 of FIG. 3B. Processor 41 interprets a player's touch of a particular location differently for each keyboard displayed such as depicted in FIG. |

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| 4 (for roulette), FIG. 5 (for craps), and FIG. 6 (for keno). The remote wagering terminal therefore provides means to rapidly and automatically reconfigure a single physical playboard to serve for displaying a plurality of possible games as depicted in FIGS. 4-6." (Hedges, 4:63-5:6.) |
| generating an image in response to said organized signal by processing at least one user specific subscriber datum, said at least one user specific subscriber datum being stored at said receiver station prior to said step of organizing and based on information supplied by a user of said receiver station, said generated image including at least some information content that does not include any information from said discrete signals; and |
| Hedges discloses this claim element. (*See* Ex. 1011, ¶¶ 138-144.)<br><br>"The player then selects a wager by touching the appropriate area of the playboard 40 and selects the amount of the wager by touching appropriate areas on the playboard 40. The terminal interprets the wager and amount of entries and feeds back to the player via display on the playboard 40 (*e.g.*, flashing the appropriate area and indicating the amount)... The player may increase, decrease or otherwise change or make multiple wagers until the "NO MORE BETS" signal is displayed on the playboard 40." (Hedges, 13:24-39.)<br><br>"The player then selects a wager by touching the appropriate area of the playboard 40 and selects the amount of the wager by touching appropriate areas on the playboard 40. ... RAM 91 [sic] is used for temporary storage of data which may change during the operation of the RGT.... Another area in RAM 92 is used for buffers 165 for the temporary storage of data being used by any of the program modules." (Hedges, 9:60-10:1.)<br><br>*See also* Hedges, 8:61-9:2, reproduced above with respect to "Preamble" element of claim 17. |
| outputting said video presentation to said user, said video presentation comprising, firstly, a video image and, secondly, a coordinated display using said generated image and said video image, wherein said at least some information content of said generated image is displayed. |
| Hedges discloses this claim element. (*See* Ex. 1011, ¶¶ 145-149.)<br><br>"Fifteen seconds prior to the end of the game, the croupier depresses the "15 SEC TO END" key 125 of FIG. 10 which sends a message to the credit station 10 of the player selecting the game. Player station 10 receives this message and displays it upon the playboard 40 and at the appropriate time the croupier depresses the "NO MORE BETS" key 126 of FIG. 10. This message is sent from the croupier station 11 to credit station 9 and then to player station 10 to be displayed." (Hedges, 13:41-49.) |

In conclusion, because Hedges discloses each and every element of claim 18 of the '251 Harvey Patent, the claim is anticipated under 35 U.S.C. § 102(e).

**2. Claim 19**

Claim 19 depends from claim 18 and adds the limitation "wherein a receiver specific control signal is generated based on a third discrete signal, said method further including the step of: selecting said video presentation in response to said generated receiver specific control signal." Hedges discloses the player station 10 receiving user input via a touch sensitive screen to generate control signals that are specific to the displayed playboard 40. (Hedges, 4:28-5:2.) As detailed above, this user input includes discrete signals that are converted into control signals by the processor 41. Hedges further discloses that a user input may be received to select a particular gaming playboard or to switch from one gaming playboard to another (*i.e.*, to generate a control signal for selecting a particular video presentation).

| 19. The method of claim 18, wherein a receiver specific control signal is generated based on a third discrete signal, said method further including the step of: selecting said video presentation in response to said generated receiver specific control signal. |
|---|
| Hedges discloses this claim element. (*See* Ex. 1011, ¶¶ 150-154.)<br>"If the player station receives authorization to proceed, the player station 10 asks the player for game selection via a message on the playboard 40… Assuming that the player has received authorization he selects the game via the playboard and the terminal generates an appropriate playboard display for the selected game, such as roulette, craps or keno depicted in FIGS. 4-6, respectively." (Hedges, 12:66-13:8.)<br>*See also* Hedges, 4:63-5:6, reproduced above with respect to the "organizing" element of claim 18. |

Claim 19 is therefore anticipated by Hedges under 35 U.S.C. § 102(e).

### 3. Claim 22

Claim 22 depends from claim 18 and adds the steps of "receiving said at least one user specific subscriber datum" and "passing said at least one user specific subscriber datum to a storage device." As detailed above, Hedges discloses receiving a user input to provide an initial wager amount (*i.e.*, a user specific subscriber datum), which passed from the processor to RAM 92 for storage.

| |
|---|
| 22. The method of claim 18, further comprising the steps of: receiving said at least one user specific subscriber datum; and passing said at least one user specific subscriber datum to a storage device. |
| Hedges discloses this claim element. *See* Hedges, 9:60-10:1, reproduced above with respect to the "generating" element of claim 18, and *see* Ex. 1011, ¶¶ 155-158. |

Claim 22 is therefore anticipated by Hedges under 35 U.S.C. § 102(e).

### 4. Claim 23

Claim 23 depends from claim 18 and adds the step of "contacting a remote station to obtain said at least one user specific subscriber datum." As detailed above with reference to claim 18, Hedges discloses storing user specific datum, such as the current wager amount, in RAM 92 for display on the game playboard 40. In addition to the current wager amount, which is received from user input, Hedges also discloses receiving other user-specific information from the credit station 9, which is also stored in RAM 92 and displayed on the playboard 40. For example, the player's remaining credit amount (*i.e.*, user specific datum) is received from the credit station 9, stored in RAM 92, and displayed on the game playboard 40. (Hedges, 13:50-62; 3:30-39)

Hedges thus discloses contacting a remote station (*e.g.*, the credit station 9) to obtain said at least one user specific subscriber datum (*e.g.*, the player's account balance.) As another example, Hedges further discloses the use of a remote control device (*i.e.*, a remote station) to receive user input, such as a wager amount.

| 23. The method of claim 18, further including the step of: contacting a remote station to obtain said at least one user specific subscriber datum. |
|---|
| Hedges discloses this claim element. (*See* Ex. 1011, ¶¶ 159-162.)<br>"A credit operator at the credit station 9 of FIG. 1 checks the credit and ID of a player using external means to establish the player identify and credit... A file is generated for the player in which the player ID, the credit amount and authentication number are written on magnetic disk 202." (Hedges, 12:28-38.)<br>"At the end of the game, the croupier enters the numerical results of the game on the keyboard 113 of croupier station 11 which sends the message to credit station 9... Credit station sends the message to player station 10 indicating a new account balance which is displayed on the playboard 40 of FIG. 2." (Hedges, 13:50-62.)<br>"The TV signals are transmitted over cable 22 using standard cable-TV frequencies and modulation techniques through modulator 14 whereby monitor 21 can receive and select the desired game at the playing station 10 of FIG. 1. *Monitor 21 can be equipped with a remote control so that the player may remotely select a game to be played. The remote control device is part of the playboard 40 of the RGT 20 and is connected via bus interface to the processor via bus 50*, as described below." (Hedges, 3:30-39, emphasis added.) |

Claim 23 is therefore anticipated by Hedges under 35 U.S.C. § 102(e).

### 5. Claim 24

Claim 24 depends from claim 18 and adds the limitation "wherein a receiver specific control signal is processed based on a third discrete signal, said method further including the step of outputting said video image in response to said receiver specific control signal." Hedges discloses the player station 10 receiving user input via a touch

sensitive screen to generate control signals that are specific to the displayed playboard 40. (Hedges, 4:28-5:2.) As detailed above, this user input includes discrete signals (*e.g.*, the row and column scan signals) that are converted into control signals by the processor 41. Hedges further discloses that a user input may be received to select a particular casino game or to switch between casino games. In response to the selection of a particular casino game, the player station 10 displays the corresponding game playboard 40 and live game video 44 (*i.e.*, said video image) from the croupier station.

| 24. The method of claim 18, wherein a receiver specific control signal is processed based on a third discrete signal, said method further including the step of outputting said video image in response to said receiver specific control signal. |
|---|
| Hedges discloses this claim element. *See supra* discussing disclosure of claim 19 by Hedges at 12:66-13:8, and disclosure of claim 23 by Hedges at 3:30-39, and *see* Ex. 1011, ¶¶ 163-166.<br>"[A] remote gaming terminal is provided which includes a live game display for displaying a selected one of a plurality of games being played such as craps, roulette or keno. The terminal also includes a playboard for displaying a selected one of a plurality of wagering possibilities corresponding to a selected one of a plurality of games being played... The playboard includes means for changing the display to enable participation in any of the games being played." (Hedges, 1:62-2:4.)<br>"[S]aid monitor controller includes means for generating a plurality of video signals, each representing a selected display corresponding to one of said plurality of games and means for selecting one of said video signals thereby displaying said selected game display." (Hedges, claim 2, 14:27-32.) |

Claim 24 is therefore anticipated by Hedges under 35 U.S.C. § 102(e).

### 5. Claim 28

Claim 28 depends from claim 18 and adds the limitation "wherein said receiver station includes a video monitor which outputs said video presentation, wherein said

video presentation comprises a series of computer generated video display outputs, and wherein by processing said at least one user specific subscriber datum said at least one processor delivers said generated image at said video monitor in one of said series of computer generated display outputs, said method further comprising the step of receiving said at least one user specific subscriber datum from a remote data source."

Hedges discloses that the player station 10 includes a video monitor 60 for outputting the game playboard 40 (which is part of its video presentation.) (Hedges, FIG. 3A; 4:14-27.) The game playboard 40 is a computer generated video display, which is updated (*i.e.*, refreshed) to display current user and game information. (*Id.*, 4:22-27; 8:61-9:2.) The playboard 40 is therefore a series of computer generated video display outputs.

As detailed above with reference to claim 18, Hedges discloses processing a stored wager amount (*i.e.*, a user specific subscriber datum) to deliver an updated playboard (*i.e.*, said generated image) at said video monitor in one of said series of computer generated display outputs. Further, as detailed above with reference to claim 23, Hedges also discloses receiving user specific subscriber datum from a remote data source (*e.g.*, the player station remote control or credit station 9.)

Claim 28 is therefore anticipated by Hedges under 35 U.S.C. § 102(e). (*See* Ex. 1011, ¶¶ 167-176.)

### E. Claims 18, 19, 22, 23, 24 and 28 are Obvious over Hedges in view of Frohbach

#### 1. Claims 18, 19, 22, 23 and 24

As set forth above in Section V.D.1, Petitioner submits that each and every element of claims 18, 19, 22, 23 and 24 is disclosed by Hedges. To the extent, however, that it may be determined that Hedges does not disclose "a coordinated display using said generated image and said video image" because Hedge's generated image (*i.e.*, game playboard) and video image (*i.e.*, live game video) are displayed on different monitors, albeit simultaneously, this element is disclosed by Frohbach. (*See* Ex. 1011, ¶¶ 177-184.)

As detailed above in Section V.B, Frohbach discloses a television audience survey system in which a television viewer enters input to a remote control device 15 to provide viewer reaction to the television broadcast being displayed. The viewer input is transmitted to a television broadcast facility, where it is combined with other viewer inputs to generate a pictorial representation (*i.e.*, a video image) of the overall reaction of the participating viewers. The pictorial representation of the viewer reactions is then transmitted to the viewers' television sets along with the corresponding television broadcast. (*See supra,* Section V.B.)

Frohbach thus discloses a coordinated display that uses a generated image (*i.e.*, the pictorial representation of viewer reaction) and a video image (*i.e.*, the television broadcast.) Frohbach's pictorial overlay is a coordinated display within the broadest

reasonable interpretation of the term because it is generated based on viewer reaction to the television broadcast, and thus has a defined relationship to the content of the television broadcast.

As detailed above in Section V.B, the person of ordinary skill in the art would be motivated to consider both Hedges and Frohbach, for example to supplement the teachings of Hedges regarding the coordinated display of a gaming playboard and a live game video on separate monitors with Frohbach's teaching of including a live television broadcast and a coordinated pictorial representation of viewer reaction on the same television display. (*See* Ex. 1011, ¶ 185.)

Because the combination of Hedges and Frohbach teaches all of the limitations of claim 18, claim 18 of the '251 Harvey Patent is obvious over Hedges in view of Frohbach and is unpatentable under 35 U.S.C. § 103(a). In addition, because Hedges discloses each of the limitations of dependent claim 19, 22, 23 and 24, as detailed in Sections V.D.2 – V.D.5, these claims are unpatentable under 35 U.S.C. § 103(a).

**2. Claim 28**

To the extent that it may be determined that Hedges alone does not disclose the claim 28 limitation of a receiver station that includes a video monitor which outputs said video presentation because Hedge's video presentation is output on two monitors, this claim limitation is obvious in view of Frohbach for the same reasons detailed above in Section V.E.1 with respect to the "coordinated display" element of claim 18.

Claim 28 is therefore obvious over Hedges in view of Frohbach and is unpatentable under 35 U.S.C. § 103(a). (*See* Ex. 1011, ¶¶ 177-185.)

### F. Claims 18, 19, 22, 23, 24, and 28 Are Anticipated by Bakula

#### 1. Claim 18

The preamble of claim 18 recites "[a] method of outputting a video presentation at a receiver station." Bakula discloses a "video display system" including a dual screen mode for displaying multiple video elements simultaneously. (Bakula, 1:41-68.) The user terminal is a receiver station that outputs a video presentation.

The first element of claim 18 recites "receiving at least one information transmission at said receiver station, said at least one information transmission including a first discrete signal and a second discrete signal." The user terminal in Bakula receives information transmissions that include two or more bits of information (*i.e.*, "a first discrete signal and a second discrete signal"), including user input at a keyboard of the user terminal (*e.g.*, for editing a news story or applying character enhancements to a news story displayed at the user terminal). Each character input at the keyboard is represented by 8 bits of data (*i.e.*, 2 or more bits). (*Id.*, 16:42-52.)

The second element of claim 18 recites "detecting said first discrete signal and said second discrete signal in said at least one information transmission." Bakula discloses detecting the user input at the user terminal using an interrupt signal that is sent to a central processing unit (CPU) of the user terminal. (*Id.*, 6:24-30.)

The third element of claim 18 recites "passing said detected at least one first discrete signal and said second discrete signal to at least one processor." When a user input is received at the user terminal, the interrupt signal is sent to the CPU, which causes the CPU to read the user input and perform further actions based on the received input. (*Id.*, 6:24-30; *see also id.*, 4:3-13.) Bakula thus discloses "passing said detected first and second discrete signals" (*e.g.*, the user input) to at least one processor.

The fourth element of claim 18 recites "organizing information included in said at least one first discrete signal with information included in said second discrete signal to provide an organized signal at said receiver station." Bakula discloses that the CPU of the user terminal organizes the bits of information in the user input (*i.e.*, the first and second discrete signals) in order to interpret the keystrokes entered at the keyboard and to generate corresponding character data and enhancement characters, each of which are stored as 8 bit bytes of data. The 8 bit bytes of character and enhancement data are "organized signals" provided by "organizing information included in said at least one first discrete signal with information in said second discrete signal." (*Id.*, 20:51-21:8.)

The fifth element of claim 18 recites "generating an image in response to said organized information by processing at least one user specific subscriber datum, said at least one user specific subscriber datum being stored at said receiver station prior to said step of organizing and based on information supplied by a user of said receiver station, said generated image including at least some information content that does not

include any information from said discrete signals." Bakula discloses generating an image at the user terminal, where the image is a video dot pattern corresponding to data representing a news story retrieved at the user terminal from a remote server (*e.g.*, a host computer, data base storage, etc.). The data representing the news story is requested by a particular user of the news terminal and is thus "at least one user specific subscriber datum." The data representing the news story is stored in a main memory M of the user terminal and is processed by a character generator to generate the image (*i.e.*, the image is generated by "processing at least one user specific subscriber datum"). (*Id.*, 5:14-40.)

The data representing the news story is stored at the user terminal "prior to the step of organizing." The data representing the news story is stored in the main memory M, and after storage, the news story is displayed on the screen. The displayed news story can be edited via the user input (*i.e.*, the first and second discrete signals). Because the "step of organizing" occurs after receipt of the user input, the data representing the news story is necessarily stored prior to the organizing (*i.e.*, the data must be stored before it can be edited via the user input). (*Id.*, 4:3-13.)

The storage of the data representing the news story is "based on information supplied by a user of said receiver station." The stored data representing the news story is requested by a particular user of the news terminal via an input supplied by the user at the keyboard of the user terminal. The request is processed by a host computer HC,

which subsequently transfers the data for the requested news story to the user terminal for storage in main memory M. The data representing the news story (*i.e.*, the user specific subscriber datum) is thus "stored at said receiver station . . . based on information supplied by a user of said receiver station." (*Id.*, 5:14-40.)

As described above with respect to elements (1) through (4) of claim 18, Bakula discloses receiving a user input via a keyboard to generate character data or enhancement data (*i.e.*, the organized information). In response to such user input, the CPU issues instructions to process and edit the data representing the news story stored in the main memory M of the user terminal, thus causing the news story displayed on the screen to change. The image is thus generated "in response to said organized signal." (*Id.*, 4:3-13.) The news story displayed at the user terminal includes "at least some information content that does not include any information from said discrete signals" (*i.e.*, portions of the story not edited by the input).

The final element of claim 18 recites "outputting said video presentation to said user, said video presentation comprising, firstly, a video image and, secondly, a coordinated display using said generated image and said video image, wherein said at least some information content of said generated image is displayed." As detailed above, Bakula discloses a dual screen mode for displaying multiple video elements simultaneously. (*Id.*, 1:41-68.) The dual screen mode is used to simultaneously output the news story being edited by the user (*i.e.*, the generated image) and a second news

story. The second news story is a "video image" that is included in the video presentation output in the dual screen mode. Bakula thus discloses a video presentation that includes a video image (*i.e.*, the second news story displayed simultaneously with the first news story being edited). (*Id.*, 1:50-61.)

The display of the news story being edited (*i.e.*, the generated image) and the second news story (*i.e.*, the video image) provides a coordinated display because both news stories have a defined relationship within the user terminal display. For example, Bakula discloses that the display may be divided into left and right portions, where each portion has a defined width corresponding to a certain number of characters. The second news story and the first news story being edited are displayed in the separate left and right portions of the display, such that the video presentation includes a coordinated display. (*Id.*, 15:17-33.) Because the display includes the news story being edited, "at least some information content of said generated image is displayed."

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| 18. A method of outputting a video presentation at a receiver station, said method comprising the steps of: |
| Bakula discloses this claim element. *See supra* discussing disclosure of this claim element in Bakula, and *see* Ex. 1011, ¶¶ 194-195. |
| *receiving at least one information transmission at said receiver station, said at least* one information transmission including a first discrete signal and a second discrete signal; |
| Bakula discloses this claim element. (*See* Ex. 1011, ¶¶ 196-198.)<br>"The editor will now view the story on his display screen and make whatever editing corrections he requires, using the proper editing controls on the keyboard" (Bakula, 4:3-13.)<br>"The command keys shown on the upper portion of the keyboard are used in conjunction with a shift key such as key 36 or 38. For example, when the italic-bold |

key 40 is actuated in the unshift mode it will cause a bold video modification to be used to represent bold type face. In the shifted mode, actuation of the key 40 will cause an italic video modification to be used to represent italic type face." (Bakula, 7:19-45.)

"As has been made clear in FIG. 11, each data character has associated with it an enhancement character. FIG. 12 is a graphical representation of the character code layout for each data word. This shows an 8 bit pattern. FIG. 13 shows the layout for an enhancement data character which also includes 8 bits. Each bit position is assigned to one of the enhancements; namely, dashed underline, cross hatch, strike-through, underline, ... and inverse video." (Bakula., 16:42-52.)

detecting said first discrete signal and said second discrete signal in said at least one information transmission;

Bakula discloses this claim element. (*See* Ex. 1011, ¶¶ 199-200.)

"The keyboard KB includes a plurality of text entry keys and various indicator lights and a keyboard layout is illustrated in FIG. 3. There may be as many as 105 key switches located on the keyboard and it interfaces to the CPU such that presentation of the pressed key codes to the CPU is on an interrupt basis in a manner well known in the art." (Bakula, 6:24-30.)

passing said detected at least one first discrete signal and said second discrete signal to at least one processor;

Bakula discloses this claim element. *See supra* discussing disclosure of this claim element in Bakula, and *see* Ex. 1011, ¶¶ 201-202.

organizing information included in said at least one first discrete signal with information included in said second discrete signal to provide an organized signal at said receiver station;

Bakula discloses this claim element. (*See* Ex. 1011, ¶¶ 203-207.)

"The character generator CG (FIG. 2) as discussed previously includes both the timing generator TG (FIG. 14) as well as a video generator VG which is illustrated in FIG. 15 to which attention is now directed. The video generator receives and stores character data obtained from the main memory M and accesses this data and converts it to a time sequence of CRT unblanking pulses. As will be described in greater detail hereinafter, the direct memory access circuitry DMA responds to a fetch data signal FEDATA outputted by the DMA control logic 312 to, in turn, provide data for the next vertical column of data characters to be displayed on the display screen. This vertical column of data characters includes 27, 8 bit character codes for the 27 lines in a column together with 27, 8 bit enhancement codes, each associated with one of the data characters. The 54 bytes thus described are loaded into either an A buffer 400 or a

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| B buffer 402 in the video generator VG (see FIG. 15)." (Bakula, 20:51-21:8.) |
| generating an image in response to said organized signal by processing at least one user specific subscriber datum, said at least one user specific subscriber datum being stored at said receiver station prior to said step of organizing and based on information supplied by a user of said receiver station, said generated image including at least some information content that does not include any information from said discrete signals; and |
| Bakula discloses this claim element. *See* Bakula, 4:3-13, reproduced above for "receiving" element, and *see* Ex. 1011, ¶¶ 208-217.<br><br>"In such case, the editor will now employ the keyboard KB for transmitting a code to the host computer to ask for a particular story. ... The host computer will then retrieve the requested story from the data base storage DBS and supply the story to the terminal. Under program control, the terminal will route the story for storage in the main memory M. At this point, the main memory M will store both program instructions for internal operation of the processor as well as the data representing the text to be displayed on the CRT.<br><br>The data characters stored in main memory are read and routed to the character generator where the data characters are decoded to obtain the proper video dot pattern for display on the CRT screen. ... This circuit operates in response to control signals from the character generator CG and fetches data from the memory with the data then being supplied to the character generator by way of a data bus DB. The data received by the character generator is then employed to provide video patterns representative of data characters for display on the cathode ray tube CRT." (Bakula, 5:14-40.) |
| outputting said video presentation to said user, said video presentation comprising, firstly, a video image and, secondly, a coordinated display using said generated image and said video image, wherein said at least some information content of said generated image is displayed. |
| Bakula discloses this claim element. (*See* Ex. 1011, ¶¶ 218-220.)<br><br>"A more desirable editing mode of operation would be for the editor to have the facilities at his display terminal to simultaneously display the two stories on different areas of a common display screen. ... It would further be desirable in such a dual screen mode of operation that the editor have the facilities at the terminal to scroll or otherwise edit one of the stories without acting upon the other story." (Bakula, 1:50-61.)<br><br>"[T]he screen is divided in half so that as shown in FIG. 7, the left half of the screen includes 35 characters for each line a two character blank spacing and then 35 additional characters on the right half of the screen. Thus, the screen may be considered as divided into a left column 202 and a right column 204, separated by a |

two character space 206. In the dual screen mode of operation, two different stories from different data sources may be displayed." (Bakula, 15:17-33.)

In conclusion, because Bakula discloses each and every element of claim 18 of the '251 Harvey Patent, the claim is anticipated under 35 U.S.C. § 102(b).

**2. Claim 19**

Claim 19 depends from claim 18 and adds the limitation "wherein a receiver specific control signal is generated based on a third discrete signal, said method further including the step of: selecting said video presentation in response to said generated receiver specific control signal." Bakula discloses that the user terminal receives a user input via a keyboard to generate a control signal used to request a particular story from the host computer HC. (Bakula, 5:14-27.) The user input is thus a "third discrete signal" used to generate the control signal, which is "receiver specific" (*i.e.*, the control signal is produced at a particular user terminal and is used to request that a news story be delivered to the particular user terminal). (*Id.*)

Further, the video presentation at the user terminal is "select[ed] in response to said generated receiver specific control signal," because the control signal is used to request a particular news story from the host computer HC, and the requested news story is subsequently received by the user terminal and displayed as part of the video presentation. (*Id.*, 5:28-40.)

19. The method of claim 18, wherein a receiver specific control signal is generated based on a third discrete signal, said method further including the step of: selecting said video presentation in response to said generated receiver specific control signal.

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|---|
| Bakula discloses this claim element. *See* Bakula, 5:14-40, reproduced above for "generating" element of claim 18, and *see* Ex. 1011, ¶¶ 221-224. |

Claim 19 is therefore anticipated by Bakula under 35 U.S.C. § 102(b).

### 3. Claim 22

Claim 22 depends from claim 18 and adds the steps of "receiving said at least one user specific subscriber datum" and "passing said at least one user specific subscriber datum to a storage device." As detailed above, Bakula discloses receiving a news story (*i.e.*, "said user specific subscriber datum") from a host computer HC. (Bakula, 5:14-27.) After receipt of the news story at the user terminal, the news story may be passed to a main memory M storage device. (*Id.*)

| |
|---|
| 22. The method of claim 18, further comprising the steps of: receiving said at least one user specific subscriber datum; and passing said at least one user specific subscriber datum to a storage device. |
| Bakula discloses this claim element. *See* Bakula, 5:14-40, reproduced above for "generating" element of claim 18, and *see* Ex. 1011, ¶¶ 225-230. |

Claim 22 is therefore anticipated by Bakula under 35 U.S.C. § 102(b).

### 4. Claim 23

Claim 23 depends from claim 18 and adds the step of "contacting a remote station to obtain said at least one user specific subscriber datum." As detailed above with reference to claim 18, Bakula discloses that "at least one user specific subscriber datum" (*i.e.*, the news story edited at the user terminal) is obtained by contacting a remote station (*i.e.*, the host computer HC). (Bakula, 5:14-27.)

| |
|---|
| 23. The method of claim 18, further including the step of: contacting a remote station |

| to obtain said at least one user specific subscriber datum. |
| --- |
| Bakula discloses this claim element. *See* Bakula, 5:14-40, reproduced above for "generating" element of claim 18, and *see* Ex. 1011, ¶¶ 231-234. |

Claim 23 is therefore anticipated by Bakula under 35 U.S.C. § 102(b).

**5. Claim 24**

Claim 24 depends from claim 18 and adds the limitation "wherein a receiver specific control signal is processed based on a third discrete signal, said method further including the step of outputting said video image in response to said receiver specific control signal." Bakula discloses that the user terminal receives a user input via a keyboard to generate a control signal used to request a particular story from the host computer HC. (Bakula, 5:14-27.) The user input is thus a "third discrete signal" used to generate the control signal, which is "receiver specific" (*i.e.*, the control signal is produced at a particular user terminal and is used to request that a news story be delivered to the particular user terminal).

Further, the "video image" (*i.e.*, the second news story displayed simultaneously with the first news story being edited) is output "in response to said receiver specific control signal," because the control signal is used to request the second news story from the host computer HC. (*Id.*) Following the request, the second news story is received by the user terminal and output as part of the video presentation. (*Id.*, 5:28-40.)

| 24. The method of claim 18, wherein a receiver specific control signal is processed based on a third discrete signal, said method further including the step of outputting said video image in response to said receiver specific control signal. |
| --- |
| Bakula discloses this claim element. *See* Bakula, 5:14-40, reproduced above for |

"generating" element of claim 18, and *see* Ex. 1011, ¶¶ 235-238.

Claim 24 is therefore anticipated by Bakula under 35 U.S.C. § 102(b).

**5. Claim 28**

Claim 28 depends from claim 18 and adds the limitation "wherein said receiver station includes a video monitor which outputs said video presentation, wherein said video presentation comprises a series of computer generated video display outputs, and wherein by processing said at least one user specific subscriber datum said at least one processor delivers said generated image at said video monitor in one of said series of computer generated display outputs, said method further comprising the step of receiving said at least one user specific subscriber datum from a remote data source." Bakula discloses that the user terminal includes a "display means in the form of a cathode ray tube CRT" (*i.e.*, "a video monitor") for outputting the news stories of the video presentation. (Bakula, 4:49-50.) The news stories of the video presentation are "computer generated video display outputs" because the images of the display are created by a character generator of the user terminal. (*Id.*, 5:28-54.)

Bakula further discloses "by processing said at least one user specific subscriber datum said at least one processor delivers said generated image at said video monitor in one of said series of computer generated display outputs." For example, the news story being edited at the user terminal is processed by the CPU of the user terminal to deliver the generated image to be displayed. Specifically, the CPU processes the news story

being edited at the user terminal by executing programs stored in the main memory M that enable the video display and text editing features of the user terminal. (*Id.*)

The news story being edited at the user terminal is received from a remote data source (*e.g.*, host computer HC, data input sources DIS). (*Id.*, 5:14-27.)

| 28. The method of claim 18, wherein said receiver station includes a video monitor which outputs said video presentation, wherein said video presentation comprises a series of computer generated video display outputs, and wherein by processing said at least one user specific subscriber datum said at least one processor delivers said generated image at said video monitor in one of said series of computer generated display outputs, said method further comprising the step of receiving said at least one user specific subscriber datum from a remote data source. |
|---|
| Bakula discloses this claim element. *See* Bakula, 5:14-40, reproduced above for "generating" element of claim 18, and *see* Ex. 1011, ¶¶ 239-244.<br>"Also associated with the system is a plurality of editing terminals T1, T2, through TN. Each editing terminal takes the form of a processor driven video display terminal having a keyboard and a display screen. … [A] news writer may use an editing terminal to create a story which is displayed on the display screen." (Bakula, 3:56-62.)<br>"For example, the processor CPU serves to execute programs which are downloaded to the main memory M." (Bakula, 5:40-54.) |

Claim 28 is therefore anticipated by Bakula under 35 U.S.C. § 102(b).

## VI. Mandatory Notices Pursuant to 37 C.F.R. § 42.8(a)(1)

Pursuant to 37 C.F.R. § 42.8(a)(1), the mandatory notices identified in 37 C.F.R. § 42.8(b) are provided below as part of this Petition.

### A. C.F.R. § 42.8(b)(a): Real Party-In-Interest

Zynga is the real party-in-interest for Petitioner.

### B. C.F.R. § 42.8(b)(2): Related Matters

The Harvey '251 Patent is currently the subject of a patent infringement lawsuit brought by the assignee of the Harvey '251 Patent, Personal Media Communications, LLC ("PMC") against Zynga, captioned *Personalized Media Communications, LLC v. Zynga Inc.,* U.S. District Court for the Eastern District of Texas, Civil Action No. 2:12-cv-68-JRG ("PMC v. Zynga").

Additionally, Petitioner has filed petitions for *inter partes* review for the following patents, which are related to the Harvey '251 Patent:

- U.S. Patent No. 7,860,131 (Case Number IPR2013-00156)
- U.S. Patent No. 7,908,638 (Case Number IPR2013-00162)
- U.S. Patent No. 7,797,717 (Case Number IPR2013-00164)

### C. C.F.R. § 42.8(b)(3) and (4): Lead and Back-up Counsel and Service Information

Zynga provides the following designation of counsel:

| Lead Counsel | Back-up Counsel |
|---|---|
| David B. Cochran<br>Reg. No. 39,142<br>JONES DAY<br>901 Lakeside Avenue<br>Cleveland, Ohio 44114<br>(216) 586-7029<br>dcochran@jonesday.com | Joseph M. Sauer<br>Reg. No. 47,919<br>JONES DAY<br>901 Lakeside Avenue<br>Cleveland, Ohio 44114<br>(216) 586-7506<br>jmsauer@jonesday.com |

Pursuant to 37 C.F.R. § 42.10(b), a Power of Attorney accompanies this Petition. Please address all correspondence to lead and back-up counsel at the address above. Zynga consents to electronic service at the email addresses above.

## VII. Conclusion

Petitioner respectfully requests that the Patent Office order an *Inter Partes Review* trial and proceed to cancel claims 17, 18, 19, 22, 23, 24, and 28.

**Respectfully submitted,**

**Date:** 2/27/13

**By:** _____

**David B. Cochran, Reg. No. 39,142**
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**PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 7,734,251**

**APPENDIX OF EXHIBITS**

| EXHIBIT NO. | TITLE |
|---|---|
| 1001 | U.S. Patent No. 7,734,251 ("the Harvey '251 Patent") |
| 1002 | PMC Infringement Contention Claim Charts against Zynga for the Harvey '251 Patent, Personalized Media Communications, LLC v. Zynga, Inc., Civil Action No. 2:12-cv-68 (E.D. Texas) |
| 1003 | Excerpt from the file history of the Harvey '251 Patent: March 4, 1999, Supplemental Amendment |
| 1004 | Excerpt from the file history of the Harvey '251 Patent: February 8, 2005, Appeal Brief |
| 1005 | Excerpt from the file history of the Harvey '251 Patent: March 23, 2009, Decision on Appeal |
| 1006 | Excerpt from the file history of the Harvey '251 Patent: June 26, 2009, Decision on Request for Rehearing |
| 1007 | U.S. Patent No. 4,339,798 ("Hedges") |
| 1008 | U.S. Patent No. 3,668,312 ("Yamamoto") |
| 1009 | U.S. Patent No. 4,107,735 ("Frohbach") |
| 1010 | U.S. Patent No. 4,204,206 ("Bakula") |
| 1011 | Declaration of Dr. Charles J. Neuhauser Under 37 C.F.R. § 1.68 in Support of Petition for *Inter Partes* Review of U.S. Patent No. |

| | |
|---|---|
| | 7,734,251 |
| 1012 | Appendix to the Declaration of Dr. Charles J. Neuhauser: Dr. Neuhauser's current *curriculum vitae* |

**PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 7,734,251**

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a copy of the foregoing Petition for *Inter Partes* Review of U.S. Patent No. 7,734,251, along with all exhibits supporting and filed with the Petition, were served on February 27, 2013 via Express Mail delivery directed to the attorney of record for the patent at the following address:

Thomas J. Scott
Goodwin Procter LLP
901 New York Avenue, N.W.
Washington, DC 20001

Date: February 27, 2013

Joseph M. Sauer