

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMAZON.COM SERVICES LLC,

Petitioner,

v.

VB ASSETS, LLC,

Patent Owner.

Case: IPR2025-01343

U.S. Patent No. 9,502,025

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 9,502,025**

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EXHIBIT LIST (37 C.F.R. § 42.63(e))

Exhibit	Description
1001	U.S. Patent No. 9,502,025 (“the ’025 patent”)
1002	Declaration of Padhraic Smyth, Ph.D.
1003	Prosecution File History for the ’025 patent
1004	U.S. Patent App. Pub. No. 2007/0050191 (“Weider”)
1005	U.S. Patent App. Pub. No. 2002/0032752 (“Gold”)
1006	U.S. Patent App. Pub. No. 2007/0083762 (“Martinez”)
1007	U.S. Patent App. Pub. No. 2004/0199387 (“Wang”)
1008	U.S. Patent App. Pub. No. 2004/0193420 (“Kennewick”)
1009	U.S. Patent No. 5,892,900 (“Ginter”)
1010	Asthana, A. & Krzyzanowski, P., “A Small Domain Communications System for Personalized Shopping Assistance,” Proceedings of 1994 International Conference on Personal Wireless Communications (pp. 199-203), IEEE Press (1994, August), (“Asthana”)
1011	Lucente, M., “Conversational interfaces for e-commerce applications,” Communications of the ACM (Sept. 2000), 43(9), 59-61, (“Lucente”)
1012	Huang et al., “Spoken Language Processing: A Guide to Theory, Algorithm, and System Development,” Prentice Hall (2001)
1013	U.S. Patent No. 6,859,776 (“Cohen”)
1014	McCandless, M. et al., “The MP3 Revolution,” IEEE Intelligent Systems (May/June 1999) (“McCandless”)
1015	Haughey, M., “Napster A New Killer Internet App,” Evolt (Nov. 12, 1999)
1016	U.S. Patent App. Pub. No. 2005/0021478 (“Gautier”)
1017	Press Release, Apple Inc., “Apple Launches the iTunes Music Store,” (April 28, 2003)

Exhibit	Description
1018	U.S. Patent App. Pub. No. 2008/0301241 (“Svendson”)
1019	U.S. Patent App. Pub. No. 2005/0240494 (“Cue”)
1020	U.S. Patent App. Pub. No. 2009/0069912 (“Stefik”)
1021	Claim Construction Memorandum Order, <i>VB Assets, LLC, v. Amazon.com, Inc., et al.</i> , 1:19-cv-01410-MN (D. Del. June 23, 2021), Dkt. 90
1022	Complaint for Patent Infringement, <i>VB Assets, LLC, v. Amazon.com Services, LLC</i> , 1:24-cv-00839-MN (D. Del. July 18, 2024), Dkt. 1
1023	Curriculum Vitae of Padhraic Smyth, Ph.D.
1024	Microsoft Computer Dictionary, Microsoft Press (2002)

CHART OF CLAIMS
[1.pre] A system for providing a natural language content dedication service, comprising:
[1.a] one or more processors; and;
[1.b] one or more non-transitory computer readable mediums storing executable instructions that when executed by the one or more processors cause the one or more processors to:
[1.b(i)] receive a first utterance that includes a natural language utterance;
[1.b(ii)] determine, based on processing of the first utterance by a speech recognition engine, one or more words or phrases of the first utterance;
[1.b(iii)] provide the one or more words or phrases as an input to a conversational language processor;
[1.b(iv)] interpret the first utterance, at the conversational language processor, based on the one or more words or phrases;
[1.b(v)] identify, based on the interpretation of the first utterance, content to dedicate to a recipient;
[1.b(vi)] initiate, based on the identified content, a dedication to the recipient;
[1.b(vii)] receive a second utterance to be associated with the dedication;
[1.b(viii)] determine, based on a processing of the second utterance by the speech recognition engine, one or more words or phrases of the second utterance;
[1.b(ix)] provide the one or more words or phrases of the second utterance as textual annotations within metadata of the content; and
[1.b(x)] send information to enable the recipient to access the content and the second utterance.
[2.pre] The system of claim 1, wherein the executable instructions, when executed by the one or more processors, cause the one or more processors to
[2.a] provide an image as one or more tags within metadata of the content.

CHART OF CLAIMS	
[3.pre]	The system of claim 1, wherein the executable instructions, when executed by the one or more processors, cause the one or more processors to
[3.a]	annotate the content with the second utterance.
[4.pre]	The system of claim 1, wherein the executable instructions, when executed by the one or more processors, cause the one or more processors to
[4.a]	purchase the content from a content provider to enable the recipient to access the content.
[5.pre]	The system of claim 4, wherein the executable instructions, when executed by the one or more processors, cause the one or more processors to:
[5.a]	identify, for the dedication, a purchase option that includes one or more of a buy-to-own purchase option, a pay-to-play purchase option, or a paid subscription purchase option; and
[5.b]	bill a user associated with the first utterance based on the purchase option.
[6.pre]	The system of claim 1, wherein the executable instructions, when executed by the one or more processors, cause the one or more processors to:
[6.a]	send, to the recipient, an electronic link to access the content as the information to enable the recipient to access the content; and
[6.b]	send, to the recipient, the second utterance in an encoded audio format as the information to enable the recipient to access the second utterance.
[7]	The system of claim 1, wherein the content includes one or more of a song or a video.
[8.pre]	A method for providing a natural language content dedication service, the method being implemented in a computer system having one or more processors programmed with computer program instructions that, when executed by the one or more processors, cause the computer system to perform the method, the method comprising:
[8.a]	receiving, by one or more processors, a first utterance that includes a natural language utterance;

CHART OF CLAIMS
[8.b] determining, by the one or more processors, one or more words or phrases of the first utterance based on processing of the first utterance by a speech recognition engine;
[8.c] providing, by the one or more processors, the one or more words or phrases as an input to a conversational language processor;
[8.d] interpreting, by the one or more processors, the first utterance, at the conversational language processor, based on the one or more words or phrases;
[8.e] identifying, by the one or more processors, content to dedicate to a recipient based on the interpretation of the first utterance;
[8.f] initiating, by the one or more processors, a dedication to the recipient based on the identified content;
[8.g] receiving, by the one or more processors, a second utterance to be associated with the dedication;
[8.h] determining, by the one or more processors, one or more words or phrases of the second utterance based on a processing of the second utterance by the speech recognition engine;
[8.i] providing, by the one or more processors, the one or more words or phrases of the second utterance as textual annotations within metadata of the content; and
[8.j] sending, by the one or more processors, information to enable the recipient to access the content and the second utterance.
[9] The method of claim 8, further comprising providing an image as one or more tags within metadata of the content.
[10] The method of claim 8, further comprising annotating the content with the second utterance.
[11] The method of claim 8, further comprising purchasing the content from a content provider to enable the recipient to access the content.
[12.pre] The method of claim 11, further comprising:

CHART OF CLAIMS
[12.a] identifying, for the dedication, a purchase option that includes one or more of a buy-to-own purchase option, a pay-to-play purchase option, or a paid subscription purchase option; and
[12.b] billing a user associated with the first utterance based on the purchase option.
[13.a] The method of claim 8, further comprising: sending, to the recipient, an electronic link to access the content as the information to enable the recipient to access the content; and
[13.b] sending, to the recipient, the second utterance in an encoded audio format as the information to enable the recipient to access the second utterance.
[14] The method of claim 8, wherein the content includes one or more of a song or a video.
[15.pre] The system of claim 1, wherein the executable instructions, when executed by the one or more processors, cause the one or more processors to:
[15.a] determine that a user is interacting with a media item; and
[15.b] identify, based on the natural language processing and the interaction of the user with the media item, the media item as the content to dedicate to the recipient.
[16.pre] The system of claim 1, wherein the executable instructions, when executed by the one or more processors, cause the one or more processors to:
[16.a] determine a media item that a user is playing;
[16.b] determine that the user provided the first utterance during the playing of the media item by the user; and
[16.c] identify, based on the natural language processing and the determination that the user provided the first utterance during the playing of the media item, the media item as the content to dedicate to the recipient.
[17.pre] The system of claim 1, wherein the executable instructions, when executed by the one or more processors, cause the one or more processors to

CHART OF CLAIMS	
[17.a]	provide an electronic link associated with the content as one or more tags within metadata of the content.
[18.pre]	The system of claim 1, wherein the executable instructions, when executed by the one or more processors, cause the one or more processors to
[18.a]	provide a voice tag as one or more tags within metadata of the content.
[19.pre]	The system of claim 1, wherein the executable instructions, when executed by the one or more processors, cause the one or more processors to
[19.a]	provide the second utterance within the content.

U.S. Patent No. 9,502,025 (the “’025 patent”) claims technology for dedicating songs using voice commands. *See, e.g.*, EX1001, 16:61-65; *see* EX1002, ¶¶31-44. But, as this Petition demonstrates, the prior art already described how conventional speech recognition techniques could be used to dedicate songs by voice. These prior art references therefore render the ’025 patent claims obvious. EX1002, ¶¶1-287.

I. OVERVIEW OF THE ’025 PATENT

A. Alleged Invention

The ’025 patent describes “a natural language content dedication service” that delivers “customized content to the recipients of the dedications.” EX1001, Abstract, 3:18-28; EX1002, ¶32. The service identifies content that a user asks it to dedicate using well-known interactive speech technology, e.g., an “automatic speech recognizer” and “conversational language processor.” EX1001, 8:13-21, 11:10-19, 28:23-34; EX1002, ¶32. The system includes a content dedication application that prompts the user to provide a dedication utterance (e.g., “Dear Charlene, I was listening to this song and I thought of you. Enjoy!”). EX1001, 29:16-39, 34:11-12; EX1002, ¶33. The user speaks a command to dedicate content to a recipient (e.g., “Dedicate it to Charlene.”). EX1001, 28:55-59; EX1002, ¶33. The system “associate[es] the dedication utterance” with the content and “send[s] a content

dedication message to the recipient.” EX1001, 36:14-19, 36:33-39, 36:39-46;
EX1002, ¶33.

B. Priority Date

The '025 patent was filed as Application No. 12/943,699 on November 10, 2010, and claims priority to U.S. Provisional Application No. 61/259,820, filed November 10, 2009. This Petition treats November 10, 2009 as the priority date.¹
EX1002, ¶¶22, 31.

II. IDENTIFICATION OF CHALLENGE

A. Statutory Grounds

Petitioner requests *inter partes* review and cancellation of claims 1-19 (the “challenged claims”) based on the following §103 grounds. *See also* EX1002, ¶¶1-287.

Ground	Claims	Ground
1	1, 3, 6-8, 10, 13-14, 19	Weider, Gold
2	2, 9, 17, 18	Weider, Gold, Martinez
3	4, 11	Weider, Gold, Ginter
4	5, 12	Weider, Gold, Ginter, Wang
5	15-16	Weider, Gold, Wang

¹ Petitioner reserves the right to challenge the '025 patent's priority date in this or other proceedings.

Ground	Claims	Ground
6	1, 3, 6-8, 10, 13-14, 19	Kennewick, Gold, Weider
7	2, 9, 17, 18	Kennewick, Gold, Weider, Martinez
8	4, 11	Kennewick, Gold, Weider, Ginter
9	5, 12	Kennewick, Gold, Weider, Ginter, Wang
10	15-16	Kennewick, Gold, Weider, Wang

B. Prior Art

1. Weider

Weider was filed August 29, 2005 and published March 1, 2007, more than one year before the '025 patent's priority date. EX1004; EX1002, ¶60. Weider is therefore prior art under pre-AIA §§102(a), (b), and (e).

Weider discloses a “speech interface” that processes natural language commands “in a wide range of domains.” EX1004, [0001], [0002], [0130]; EX1002, ¶61. A speech recognition engine processes an utterance to “recognize[] words and phrases,” and a parser determines a context for the utterance by “applying prior probabilities or fuzzy possibilities to keyword matching.” EX1004, [0187], [0192]; EX1002, ¶62.

Weider's speech interface has many applications, including to control “multimedia entertainment electronics.” EX1004, [0044]; EX1002, ¶63. For

example, the user may use the speech interface to “play a specific song title.” EX1004, [0139]; EX1002, ¶63.

2. Gold

Gold was filed June 7, 2001 and published March 14, 2002, more than one year before the '025 patent's priority date. EX1005; EX1002, ¶64. Gold is therefore prior art under pre-AIA §§102(a), (b), and (e).

Gold discloses a “song dedication system” that allows users to “send dedications of popular songs through a communications medium such as the Internet.” EX1005, [0010], Abstract; EX1002, ¶65. A user “enters song search criteria” and “selects one of the songs from [a] received list” to dedicate to a recipient. EX1005, [0031]; EX1002, ¶65.

The user records “a voice message to be appended to the dedicated song to create the desired dedication.” EX1005, [0007], [0070]; EX1002, ¶87. Gold associates the voice message with the song and sends a “notification inform[ing] the recipient” of the dedication. EX1005, [0042], FIG. 11; EX1002, ¶67. The recipient follows a URL to access the voice message and the song, which are played “as a single dedication by the recipient's Web client.” EX1005, [0043]; EX1002, ¶67.

3. Martinez

Martinez was filed October 10, 2005 and published April 12, 2007, more than one year before the '025 patent's priority date. EX1006; EX1002, ¶68. Martinez is therefore prior art under pre-AIA §§102(a), (b), and (e).

Martinez discloses a “tool for creating a composite media item with an associated set of metadata.” EX1006, [0006]; EX1002, ¶69. The tool extracts metadata associated with media items and inserts the metadata “into at least one data container,” which “may be created using a variety of methods such as XML [or] using linear strings of data.” EX1006, [0020], [0035], [0044], [0011], [0018]; EX1002, ¶70.

4. Wang

Wang was filed April 26, 2004 and published October 7, 2004, more than one year before the '025 patent's priority date. EX1007; EX1002, ¶71. Wang is therefore prior art under pre-AIA §§102(a), (b), and (e).

Wang discloses a “signal identification service” that enables a user to identify and purchase a song through an “interactive voice response unit.” EX1007, [0012], [0070]; EX1002, ¶72. The user “captures a relatively short sample of music” and transmits the sample to the service, which “identifies the song to the user in real-time.” EX1007, [0012], [0024]; EX1002, ¶72. The user can “immediately place an order for a recording of the identified music,” such as via “digital download[] to

[the] user's PC." EX1007, [0024], [0025], [0026]; EX1002, ¶73. The user can also "interact with other users...of the service," e.g., by "instruct[ing] the service to send a recommendation for the identified song to a friend." EX1007, [0042], [0043]; EX1002, ¶74.

5. Kennewick

Kennewick was filed July 15, 2003 and published September 30, 2004, more than one year before the '025 patent's priority date. EX1008; EX1002, ¶75. Kennewick is therefore prior art under pre-AIA §§102(a), (b), and (e).

Kennewick discloses an "interactive natural language speech system" that processes natural language commands "in a wide range of domains." EX1008, Abstract, [0002], [0012]; EX1002, ¶76. The system includes a speech recognition engine that processes an utterance to "recognize words and phrases" (EX1008, [0155]) and a parser that determines a context for the utterance by "applying prior probabilities or fuzzy possibilities to keyword matching." EX1008, [0156], [0160]-[0161]; EX1002, ¶77.

Kennewick's system has a variety of applications, including to control "multimedia entertainment electronics" by commanding the system to play "a particular piece of music." EX1008, [0043], [0018]; EX1002, ¶78.

6. Ginter

Ginter was filed August 30, 1996 and issued April 6, 1999, more than one year before the '025 patent's priority date. EX1009; EX1002, ¶79. Ginter is therefore prior art under pre-AIA §§102(a), (b), and (e).

Ginter discloses a “virtual distribution environment (VDE)” that “enforce[s] a secure chain of handling and control” for “electronically stored or disseminated information.” EX1009, Abstract; EX1002, ¶80. The VDE “protect[s] the rights of parties who have...commercial interests in electronically distributed information” by “ensur[ing], for example, that parties, will be paid for use of distributed information.” EX1009, 4:28-34; EX1002, ¶81. For example, “an electronic agreement between a content creator and a distributor may establish [] the price to the distributor for a creator's content.” EX1009, 47:24-30; EX1002, ¶81.

III. LEVEL OF ORDINARY SKILL IN THE ART

A POSITA at the priority date of the '025 patent would have had a Bachelor's degree in computer science, computer engineering, electrical engineering, or a related field in computing technology, and two years of experience with automatic speech recognition and natural language understanding, or equivalent education, research experience, or knowledge. Additional experience can substitute for the level of education, and vice-versa. EX1002, ¶¶22-26.

IV. CLAIM CONSTRUCTION

For the purposes of this Petition, Petitioner applies plain-and-ordinary meaning to all terms.² EX1002, ¶¶27-30.

V. GROUND 1: WEIDER AND GOLD

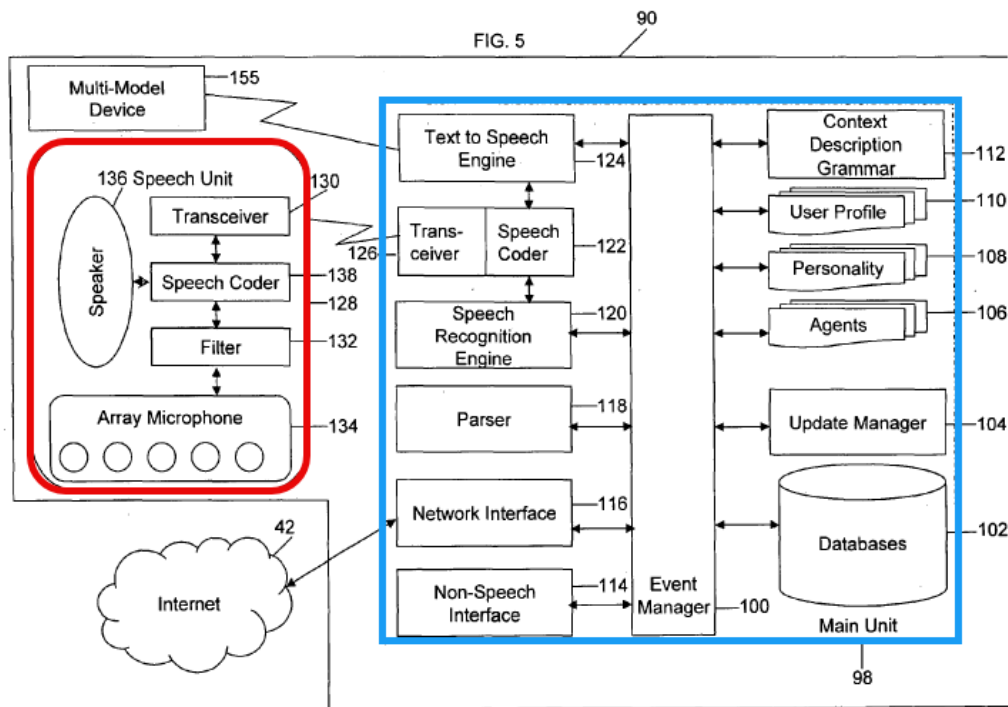
A. Claim 1

[1.pre]

Weider discloses “*a system for providing a natural language...service.*” EX1002, ¶83. An “interactive natural language system” (EX1004, [0012]) “enables mobile users to submit natural language speech...commands,” (*id.*, [0001]), e.g., a “command...to play a specific song title.” *Id.*, [0139], [0130]; EX1002, ¶83. The system includes a **speech unit 128** that “receive[s] utterances” and a **main unit 98** that processes the utterances and generates a response.³ EX1004, [0028], [0014], [0020], [0143], [0146]-[0147], [0211], FIG. 5; EX1002, ¶84.

² Petitioner reserves the right to offer different claim constructions in other forums.

³ All annotations and emphases are added unless otherwise noted.



Weider’s system “*provid[es] a natural language...service*” by processing and responding to natural language utterances, including providing a song when a user “command[s] the system to play a specific song title.” EX1004, [0139], [0014], [0027]; EX1002, ¶85.

To the extent Weider does not explicitly disclose that the system “*provid[es]...a content dedication service*,” the combination with Gold renders it obvious. *Id.*, ¶86. Gold describes a “song dedication system” whereby a sender “create[s] a song dedication that can then be sent to a recipient.” EX1005, [0010], [0007]; EX1002, ¶86. The sender selects a song title from Gold’s song database and records “a voice message to be appended to the dedicated song to create the desired

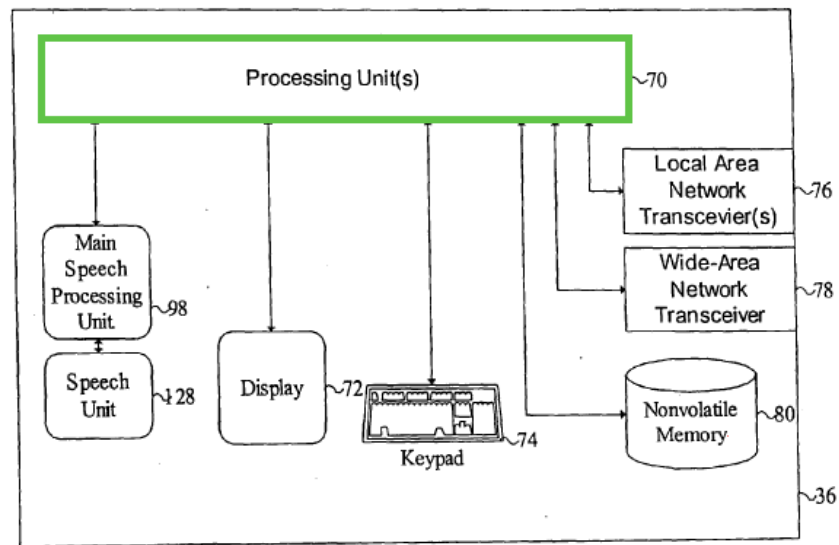
dedication.” EX1005, [0007], [0032], [0036], [0070]; EX1002, ¶¶86-87. The system sends the dedication to the recipient, and the recipient web client plays “the voice message and the dedicated song.” EX1005, [0043]; EX1002, ¶87. Gold’s system therefore “*provid[es]...a content dedication service*” because it enables senders to dedicate content (songs) to recipients. EX1005, [0009]; EX1002, ¶88.

It would have been obvious to modify Weider to include Gold’s content dedication service to achieve a “*natural language content dedication service*.” *Id.*, ¶89. A POSITA would have been motivated to add Gold’s content dedication to Weider’s service that enabled users to play specific songs so that users could share songs with others because “song dedications can be an effective way to convey and share complex emotions and memories.” EX1005, [0006]; EX1002, ¶89. This Weider-Gold system combines prior art elements according to known methods to yield predictable results because Weider uses a flexible agent-based architecture to provide natural language services “in a wide range of domains,” and Gold’s song dedication service is one type of domain. EX1004, [0001], [0150]; EX1002, ¶90. A POSITA would have found it obvious to use Gold’s functionality within Weider’s system, e.g., using Weider’s domain agent to provide Gold’s content dedication and would have had a reasonable expectation for its success. *Id.*

Alternatively, it would have been obvious to substitute Weider's natural language command for Gold's UI-based dedication instruction for reasons like those the Examiner provided for the Gold-Kennewick combination during prosecution. EX1003, 187-98, 129-44; EX1002, ¶91. For example, it would have been obvious to use Weider to process a natural language utterance (e.g., content dedication request) and route the utterance as input to Gold's song dedication system. *Id.* This is a simple substitution of one known element (Weider's method of receiving and processing natural language utterances) for another (Gold's UI-based song selection method). *Id.* The combination of natural language processing with Gold's content dedication service would have "result[ed] in an improved system that would allow selection of content based on natural language." EX1003, 133-35; EX1002, ¶91.

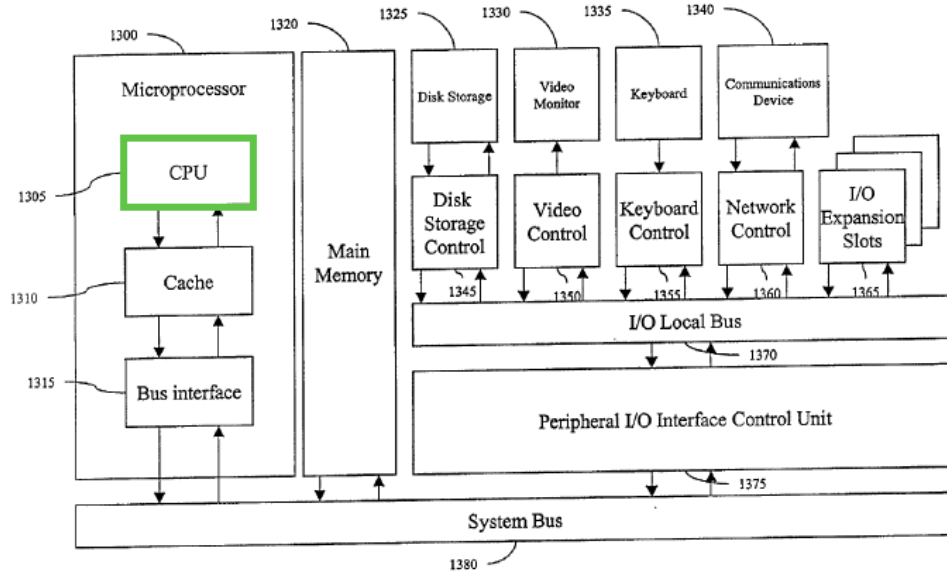
[1.a]

Weider's system contains "one or more **processing units 70**," which include "one or more central processing units." EX1004, [0113], [0012], FIG. 3; EX1002, ¶92.



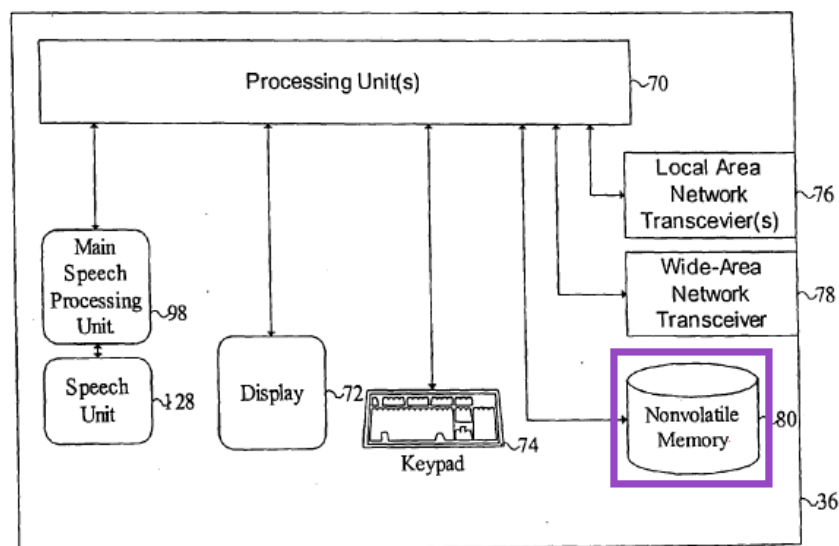
See also *id.*, [0126]. The central processing unit is “*one or more processors.*” EX1024, 132; EX1002, ¶92.

Gold also discloses “*one or more processors.*” *Id.*, ¶93. Gold’s song dedication server includes “a microprocessor 1300, comprised of a **Central Processing Unit (CPU) 1310.**” EX1005, [0068], FIG. 16; EX1002, ¶93; EX1024, 132.



[1.b]

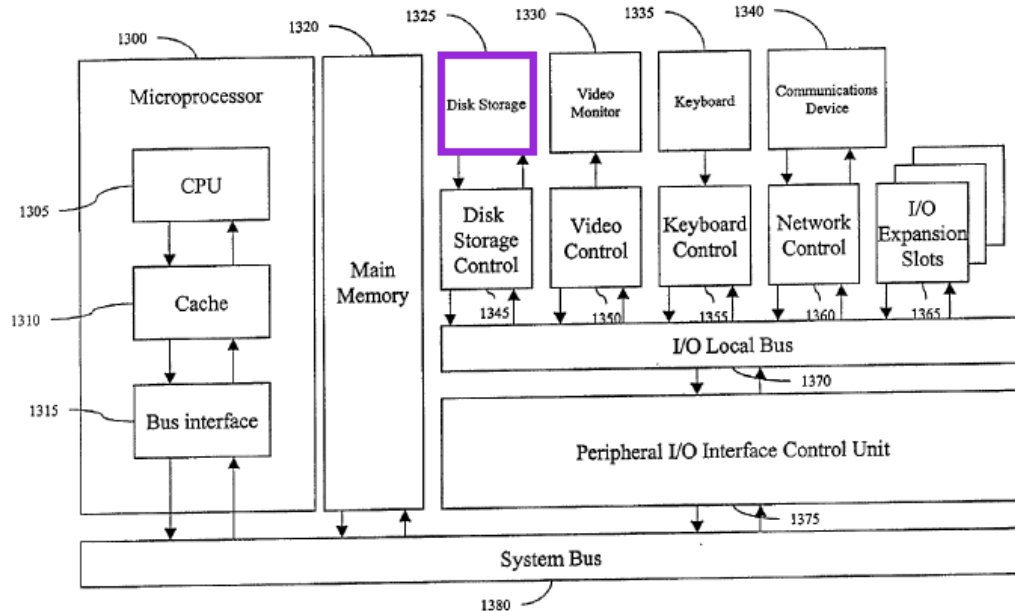
Weider's processor uses “nonvolatile memory” such as “flash memory and hard disk drives” for “software and data storage” that meet the “*one or more non-transitory computer readable mediums*” limitation. EX1004, [0113], FIG. 3; EX1002, ¶94.



See also id., [0126], FIG. 4.

Weider's computer readable medium "*stor[es] executable instructions.*" EX1002, ¶95. Weider's speech processing unit stores executable instructions called "software modules," including the "speech recognition engine," "parser," and "text-to-speech engine." EX1004, [0013], [0020]; EX1002, ¶95. Weider also discloses executable instructions called "data managers," which are "autonomous executables that receive, process and respond to" utterances. EX1004, [0023]; EX1002, ¶95. A POSITA would have understood that the software modules and data managers are "*executable instructions*" stored in the "*one or more non-transitory computer readable mediums*" and that the instructions, "*when executed by the one or more processors cause the one or more processors to*" perform programmed operations. *Id.*

Additionally, Gold discloses a "disk storage device" ("*non-transitory computer readable medium*") that stores "computer program instructions" ("*executable instructions*") "implementing software objects." EX1005, [0069], FIG. 16; EX1002, ¶96.

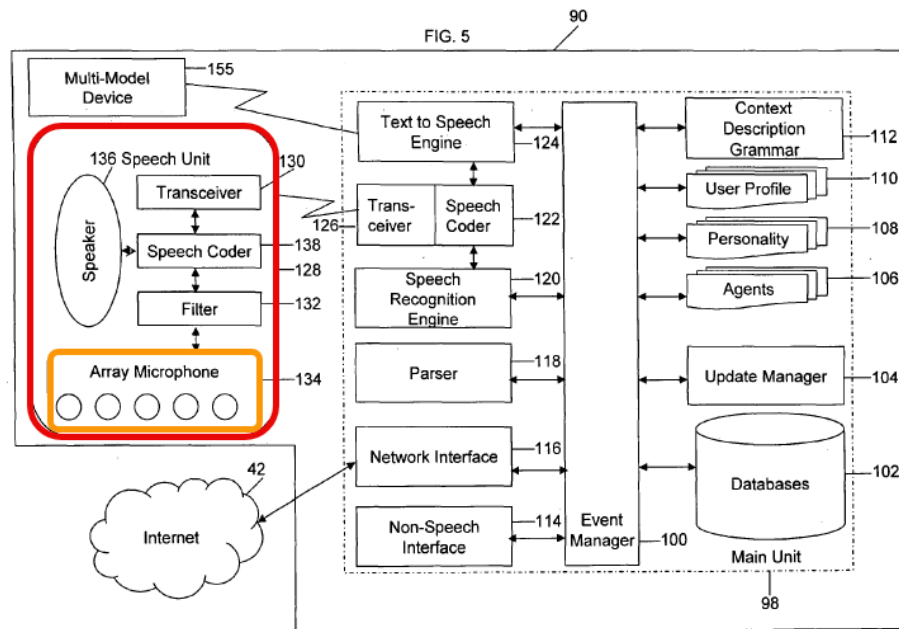


The instructions are executed by the CPU (the “*one or more processors*”), causing the microprocessor to “execute[] the computer program instructions...to instantiate a song dedication server.” EX1005, [0069]; EX1002, ¶¶96-97.

[1.b(i)]

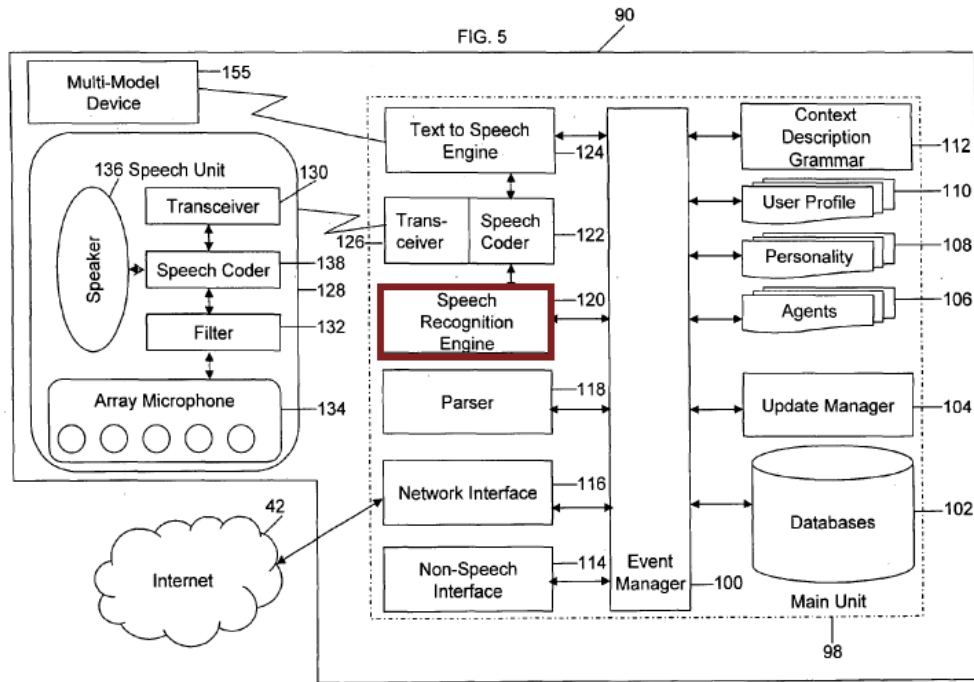
Weider’s “speech unit interface device [] receives spoken natural language ...utterances from users,” e.g., a “command...to play a specific song title.” EX1004, [0014], [0139]. This command is “*a first utterance that includes a natural language utterance.*” EX1002, ¶98.

Weider’s **speech unit 128** “*receiv[es] [the] first utterance*” using “**one or more microphones.**” EX1004, [0143] (the microphones “receive the utterances from the user”), [0028], FIG. 5; EX1002, ¶99.



[1.b(ii)]

Weider’s “*speech recognition engine*” “*process[es] [] the first utterance*” to “*determine...one or more words or phrases of the first utterance.*” *Id.* Specifically, Weider discloses that speech input is “passed to the speech coder 122 for decoding and decompression” before being “fed to the **speech recognition engine 120**,” which “recognizes words and phrases” and “transcribe[s] utterances to textual messages.” EX1004, [0146], [0187], [0133], FIG. 5; EX1002, ¶¶100-102.

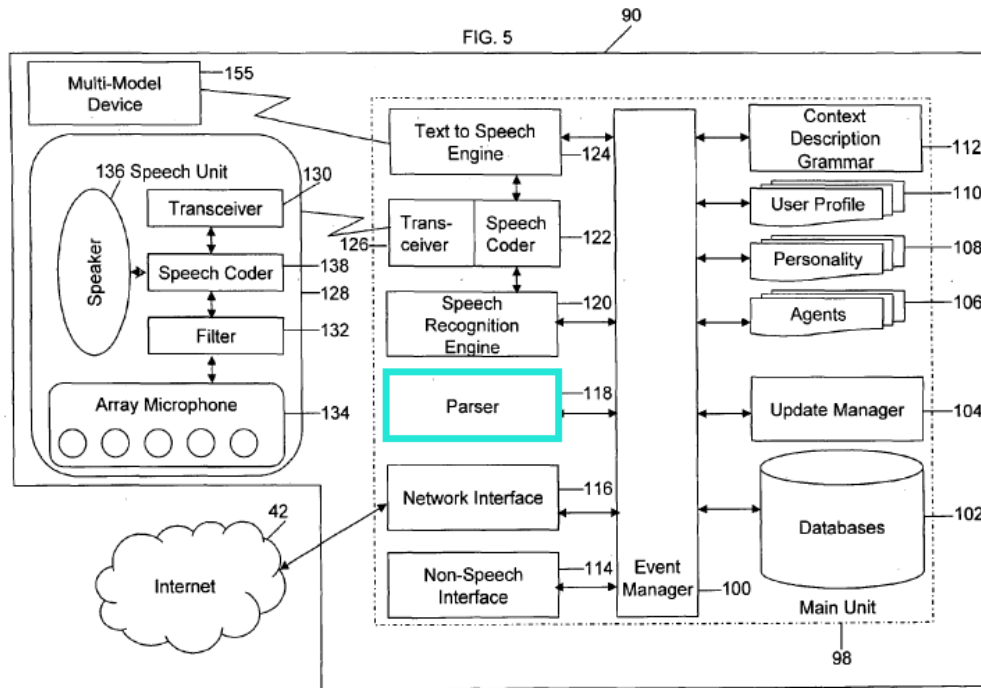


Because these steps are performed “for each utterance” (EX1004, [0028]), the speech recognition engine “*determine[s]...one or more words or phrases of the first utterance.*” EX1002, ¶102.

[1.b(iii)]

Weider’s speech recognition engine “*provide[s] the one or more words or phrases as an input to a conversational language processor.*” *Id.*, ¶¶105-106.

“Once the words and phrases have been recognized,” Weider’s speech recognition engine “passes these [words and phrases] to the **parser 118** for interpretation.” EX1004, [0192], [0187], FIG. 5; EX1002, ¶103.



A POSITA would have recognized that Weider’s parser is a “*conversational language processor*” because the parser interprets the recognized words or phrases. *Id.*, ¶105. Specifically, the parser “examines [] tokens” corresponding to the words and phrases and determines a context for the utterance “by applying prior probabilities or fuzzy possibilities to keyword matching, user profile 110, dialog history, and context stack contents.” EX1004, [0192], [0187], [0028]; EX1002, ¶104. The system uses the context to “invoke[] the correct agent” to process the utterance. EX1004, [0193]; EX1002, ¶104. This is consistent with the ’025 patent, which discloses that the conversational language processor “determin[es] a most likely context for the interaction from the preliminary interpretation of the utterance”

and “invoke[s] one or more agents 132c having capabilities for processing requests in a particular domain or application.” EX1001, 13:8-20; EX1002, ¶106. Weider’s speech recognition engine “*provide[s] the one or more words or phrases as an input to [the] conversational language processor*” by “passing” the words and phrases to the parser. EX1004, [0187]; EX1002, ¶106.

[1.b(iv)]

A POSITA would have understood that Weider’s parser (the “*conversational language processor*”) “*interpret[s] the first utterance...based on the one or more words or phrases*” because the speech recognition engine “passes” the words and phrases “to the parser 118 for interpretation.” EX1004, [0187], [0028] (“For each user utterance,...the system...pars[es] and interpret[s] the [utterance]”); EX1002, ¶107.

[1.b(v)]

Weider discloses “*identify[ing], based on the interpretation of the first utterance, content.*” *Id.*, ¶108. As discussed for the preamble [1.pre], the user “command[s] the system to play a specific song title,” and the system “provide[s] a song” in response. EX1004, [0139]; EX1002, ¶108. A POSITA would have understood that Weider’s system “*identif[ies]*” the song (content) “*based on the interpretation of the first utterance*” to “provide” the song to the user. *Id.*

Gold discloses “*identify[ing]...content to dedicate to a recipient.*” *Id.*, ¶109. Gold’s sender “receives a song list” based on sender-specified search criteria and “selects a song to dedicate to a recipient.” EX1005, [0036], [0031], [0032]; FIG. 5. A song is “*content*” that Gold’s system “*identifies*” when it receives the song title selected by the sender. EX1002, ¶109.

A POSITA would have found it obvious to integrate Gold’s content dedication into Weider’s natural language system, so that a user could say a song title and the system would then “*identify...content to dedicate to a recipient*” (i.e., the user-specified song). *Id.*, ¶110. Using the speech interface to dedicate an identified song would have furthered Weider’s goal of “allow[ing] a person to make natural language speech-based requests” and supplemented the “wide range of domains” with which Weider’s system may be used. EX1004, [0004], [0001]; EX1002, ¶110.

This involves applying a known technique (Gold’s content dedication functionality) to improve a similar device (Weider’s natural language system) in the same way (enabling users to dedicate content). EX1002, ¶110.

Alternatively, as discussed for preamble [1.pre], it would have been obvious to combine Gold and Weider for reasons like those the Examiner identified during prosecution, e.g., modifying Gold by substituting Weider’s method of identifying content using natural language utterances for Gold’s UI-based content identification.

EX1003, 187-98, 129-44; EX1002, ¶¶111-112. A POSITA would have been motivated to make this combination for the reasons discussed for preamble [1.pre]. EX1002, ¶¶111-112.

[1.b(vi)]

Weider discloses “*initiat[ing]*” an action “*based on the identified content*” by “provid[ing] a song” when the user commands the system to “play a specific song title.” EX1004, [0139], [0027]; EX1002, ¶113. A POSITA would have understood that the song the system “provide[s]” is the one it identifies in limitation [1.b(v)], so the action of providing the content is initiated “*based on the identified content.*” EX1002, ¶113.

Gold discloses “*initiat[ing]...a dedication to the recipient.*” *Id.*, ¶114. After Gold’s sender selects a song title, the system sends the sender “instructions for recording the [dedication] voice message,” e.g., “using the sender’s computer.” EX1005, [0007], [0070]; EX1002, ¶114. By instructing the sender to record the dedication message, Gold’s system “*initiate[s]...a dedication to the recipient.*” EX1002, ¶114. The initiation is “*based on the identified content*” because the dedication is for the “*identified content.*” *Id.*

A POSITA would have found it obvious to integrate Gold’s method of “*initiat[ing]...a dedication to the recipient*” into the natural language content dedication service. EX1002, ¶115. In the combined system, Weider’s speech

interface sends the user instructions to record a dedication voice message. EX1004, [0139] (an agent can prompt a user for information), [0147] (an agent can output speech to a user). EX1002, ¶115. A POSITA would have been motivated to make this combination to create “a complete natural language verbal...query and response environment,” as suggested by Weider. EX1004, [0005]; EX1002, ¶115. This combination involves applying a known technique (Gold’s content dedication functionality) to improve a similar device (Weider’s interactive natural language system) in the same way (enabling users to dedicate content). EX1002, ¶115.

[1.b(vii)]

Weider’s user can provide “speech annotations” for objects, such as digital media. EX1004, [0120], [0127], claim 23; EX1002, ¶116. The speech annotation is “stored along with the object[]” by a server. EX1004, [0120]-[0121]. A speech annotation is an “***utterance.***” EX1002, ¶116.

Gold discloses “***receiving***” an utterance “***to be associated with the dedication.***” EX1002, ¶117. As discussed above, Gold’s sender records a dedication voice message “to be combined with the dedicated song to create a dedication.” EX1005, [0038], [0032]; EX1002, ¶117. Gold’s system receives this message, which is an “***utterance to be associated with the dedication.***” EX1005, [0031], [0039], claim 6; EX1002, ¶117.

A POSITA would have found it obvious for Weider's system to receive Gold's dedication voice message. EX1002, ¶118. In the combined system, the user provides, via Weider's speech interface, a "***first utterance***" used to "***identify...content to dedicate to a recipient***," as discussed for limitation [1.b(v)]. *Id.* Similarly, it would have been obvious for the system to receive a "***second utterance to be associated with the dedication***" in view of Weider's speech annotations for digital media objects and Gold's disclosure of receiving a dedication voice message. *Id.* Weider discloses a system that enables users to annotate a digital media object by voice. EX1004, [0120], [0127], claims 19, 23. Weider does not limit what a user may say in these speech annotations. EX1004, [0120]; EX1002, ¶118. One example of a speech annotation is described in Gold—a dedication voice message. EX1002, ¶118. It would have been obvious to a POSITA to try Gold's dedication message as Weider's speech annotation because "song dedications can be an effective way to convey and share complex emotions and memories." EX1005, [0006]; EX1002, ¶118. In the combination, the "***second utterance***" is Weider's speech annotation, and specifically Gold's dedication voice message. EX1002, ¶118. The combinations furthers Weider's objective to create "a complete natural language verbal...query and response environment." EX1004, [0005]; EX1002, ¶118.

[1.b(viii)]

Weider performs speech recognition processing on “each user utterance.” EX1004, [0028]. Therefore, a POSITA would have found it obvious to perform the same processing discussed for limitation [1.b(ii)] for the second utterance to allow the speech recognition engine to “***determine...one or more words or phrases***” of the speech annotation dedication message (“***second utterance***”). EX1002, ¶119.

Moreover, Weider’s system “transcribe[s] the speech annotations to textual annotations and store[s] the textual annotations with the object.” EX1004, [0120], [0127]. By transcribing the speech annotation, Weider’s speech recognition engine “***process[es] [] the second utterance***” to “***determine...one or more words or phrases of the second utterance***.” EX1002, ¶120.

[1.b(ix)]

Weider “***provide[s] the one or more words or phrases of the second utterance as textual annotations***.” *Id.*, ¶121. Weider “transcribe[s] the speech annotations to textual annotations” (EX1004, [0120], [0127], claim 19) by converting “***the one or more words or phrases***” of the utterance to a textual representation. EX1004, [0020] (“a multi-pass automatic speech recognition module...transcribes the utterance to a text message”), [0117], [0133]; EX1002, ¶¶ 121-122.

Weider also discloses storing the textual annotations “*within metadata of the content.*” EX1004, [0123] (“textual annotations...that are associated with the objects may be stored as metadata”); EX1002, ¶123. The ’025 patent concedes that Weider’s disclosure of storing annotations as metadata meets this limitation, acknowledging that “verbal annotations, textual annotations, and other types of annotations may be created and associated with the dedicated content using techniques described in [Weider].” EX1001, 29:56-64; EX1002, ¶123.

As discussed above, Weider’s speech annotation combined with Gold’s dedication message renders obvious “*receiv[ing] a second utterance to be associated with the dedication.*” EX1002, ¶124. A POSITA would have found it obvious to transcribe this utterance and store the words or phrases “*as textual annotations within metadata of the content.*” *Id.* A POSITA would have been motivated to make this combination for the reasons described above for limitation [1.b(vii)] and because storing the second utterance as metadata (per Weider) would have provided an efficient way of conveying Gold’s dedication message to the recipient together with the content in a single message that consumes less network resources, like bandwidth, than sending them separately. *Id.*

[1.b(x)]

Gold discloses “*send[ing] information to enable the recipient to access the content and the second utterance.*” EX1002, ¶126. Gold’s dedication Web server

“informs the recipient that a dedication has been made by the sender,” e.g., by sending “a first email recipient notification 245 to the recipient.” EX1005, [0008], [0042]; EX1002, ¶¶125-126. The email contains the URL of a play dedication server script that the recipient invokes to ultimately “play the voice message and the dedicated song.” EX1005, [0043], [0057], FIG. 11; EX1002, ¶126.

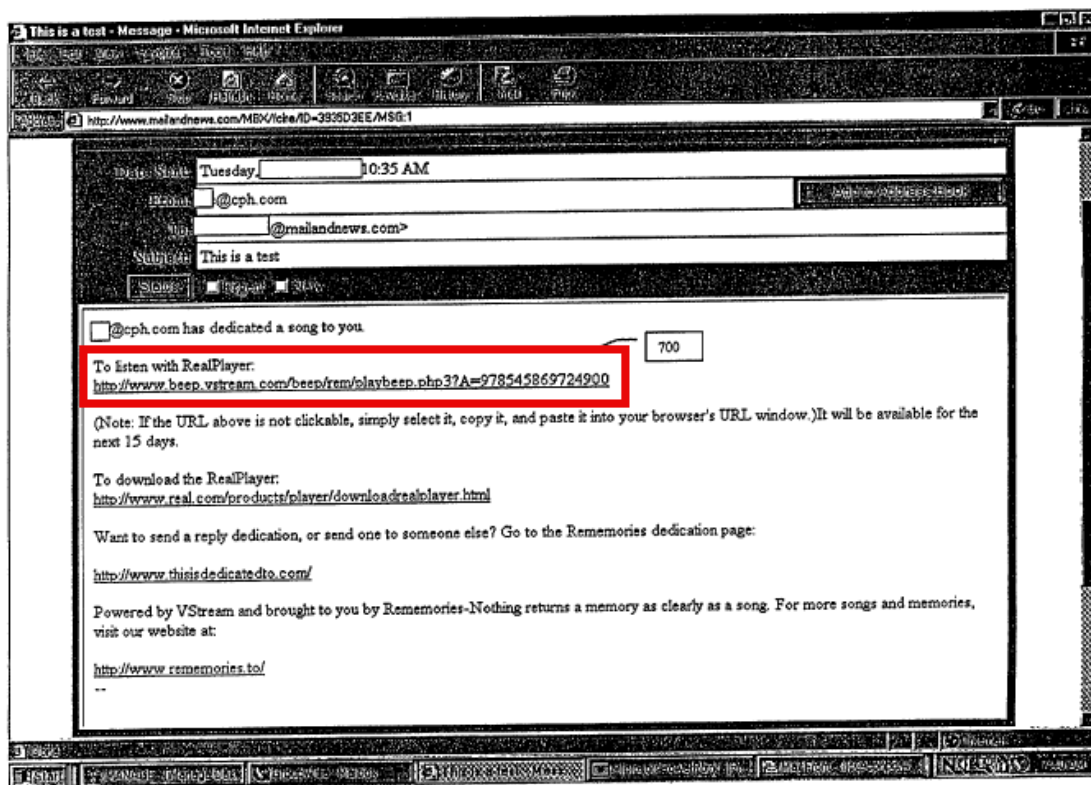


FIG. 11

Alternatively, the content (song) and second utterance (dedication message) are “combined into a single audio file” and “sent...as an attachment to the email dedication notification” to the recipient. EX1005, [0070]; EX1002, ¶126. The system can also “place a telephone call to the recipient to play the dedication.”

EX1005, [0008]. The email and other messages each contain “*information*” that Gold sends to the recipient. EX1002, ¶126.

In the combination, the “*one or more words or phrases of the second utterance*” are “*provide[d]...as textual annotations within metadata of the content*” as discussed for limitation [1.b(ix)]. EX1002, ¶127. A POSITA would have found it obvious for the system to include the metadata with the content or otherwise send it at the same time, enabling the recipient to access the song and the dedication message in a single message, which also consumes less network resources than sending multiple messages. EX1004, [0123], claim 28; EX1002, ¶127. A POSITA also would have recognized that bundling metadata and content was a well-known practice in digital media systems, improving efficiency by reducing the need for separate storage, synchronization, or retrieval operations. EX1002, ¶127.

Moreover, a POSITA would have found it obvious for the combined system to inform the recipient of the dedication and to “*enable the recipient to access the content and the second utterance*” because that is the purpose of the dedication. EX1005, [0006] (“song dedications can be an effective way to convey and share complex emotions and memories”); EX1002, ¶128. In the combined system, a user provides recipient contact information using Weider’s speech interface, and the system uses the information to send the dedication to the recipient. *Id.* This

combines prior art elements according to known methods (Weider collecting user input via the speech interface and Gold prompting a user to provide recipient contact information) to yield predictable results (using voice input to collect recipient contact information). *Id.*

B. Claim 3

Claim 3 is substantively identical to limitation [1.b(ix)] and is obvious for the same reasons. *Id.*, ¶129.

C. Claim 6

[6.a]

Gold discloses “*send[ing], to the recipient, an electronic link.*” *Id.*, ¶130. As discussed for limitation [1.b(x)], Gold’s dedication Web server sends a “first email recipient notification” “contain[ing] the URL of a play dedication server script located on the dedication Web server.” EX1005, [0042], [0043], FIG. 11; EX1002, ¶130.

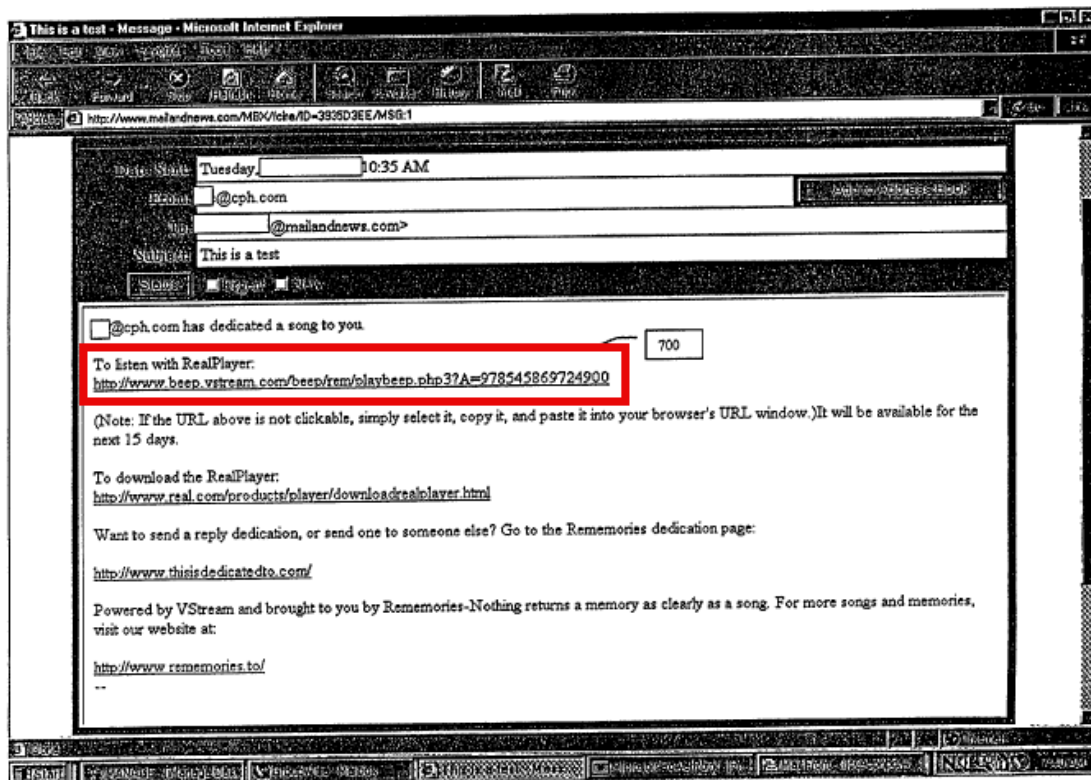


FIG. 11

A URL is an “*electronic link*” that Gold “*send[s] to the recipient.*” EX1002, ¶130.

The “*electronic link*” further “*enable[s] the recipient to access the content.*” EX1002, ¶131. Gold discloses that “the play dedication server script executes and returns a Web page and a dedication client script” that “contains the URLs of the voice message and dedicated song.” EX1005, [0043], [0057]-[0061]. Execution of the dedication client script causes the recipient Web client to “play the voice message and the dedicated song as a single dedication,” enabling the recipient to “*access*” (e.g., listen to) the content. EX1005, [0043], [0056]; EX1002, ¶131.

[6.b]

As discussed for limitations [1.b(vii)] and [1.b(ix)], Weider in combination with Gold renders obvious “*receiv[ing] a second utterance to be associated with the dedication*,” where the utterance is received as audio, transcribed, and “stored as metadata” of the object. EX1004, [0120] (“speech annotations” are transcribed to text), [0123]; EX1005, [0038] (the dedication message is a “recorded voice message”); EX1002, ¶132. Gold also discloses “*send[ing] information to enable the recipient to access the content and the second utterance*,” as discussed for limitation [1.b(x)]. EX1002, ¶132.

A POSITA would have found it obvious to “*send, to the recipient, the second utterance in an...audio format*.” EX1005, [0008], [0050]; EX1002, ¶134. For example, it would have been obvious to send an audio dedication with the audio content (song) because the user listens to the song’s audio, and the dedication is recorded in audio format, so the dedication would logically be provided as recorded audio with the song. EX1002, ¶133.

Additionally, it would have been obvious for the combined system to “*send, to the recipient, the second utterance in an encoded audio format as the information to enable the recipient to access the second utterance*.” *Id.*, ¶134. When the system sends Gold’s email notification, the recipient follows the URL in the email to access the second utterance because execution of the dedication client

script causes the recipient Web client to “play the voice message.” EX1005, [0042]-[0043], [0056]; EX1002, ¶135. Alternatively, where the dedication is sent as a digital audio file attached to the email, a POSITA would have recognized that the recipient accesses the second utterance (dedication message) by opening the attachment. EX1005, [0070]; EX1002, ¶135.

In both cases, Gold sends the second utterance “*in an encoded audio format.*” EX1002, ¶136. A POSITA would have understood that computerized systems commonly exchange audio information in encoded audio formats, “such as MP3,” as disclosed by Gold. EX1005, [0070], [0039]; EX1024, 349; EX1002, ¶136. In another example, where the “computer telephony system is used to place a telephone call to the recipient to play the dedication” (EX1005, [0008]), a POSITA would have understood that the second utterance is provided in an encoded audio format because audio is encoded for transmission over telecommunications networks. EX1002, ¶136.

D. Claim 7

Weider in combination with Gold renders obvious that “*the content includes one or more of a song or a video*” because Gold’s system is a “song dedication system” that enables a user to “send dedications of popular songs” or “music video[s].” EX1005, [0010], Abstract, [0070]; EX1002, ¶137.

E. Claim 8

As discussed for preamble [1.pre] and limitations [1.a]-[1.b], Weider in combination with Gold renders obvious a “*system for providing a natural language content dedication service*” that comprises “*one or more processors*” and “*one or more non-transitory computer readable mediums storing executable instructions that when executed by the one or more processors cause the one or more processors to*” perform programmed operations. EX1002, ¶138.

The Weider-Gold system performs “*a method for providing a natural language content dedication service*” for similar reasons. *Id.*, ¶139. Weider discloses a “method of processing speech and non-speech communications,” and Gold describes a “method of sending a song dedication from a sender to a recipient.” EX1004, claim 38; EX1005, claim 1. A POSITA would have understood that the systems described above for claim 1 perform “*a method for providing a natural language content dedication service.*” EX1002, ¶139. The remaining limitations of claim 8 are substantively identical to those of claim 1. *Id.* Weider in combination with Gold therefore renders claim 8 obvious. *Id.*

F. Claim 10

Claim 10 is substantively identical to claim 3 and is obvious for the same reasons. EX1002, ¶140.

G. Claims 13-14

Claims 13-14 are substantively identical to claims 6-7, respectively, and are obvious for the same reasons. *Id.*, ¶¶141-142.

H. Claim 19

Gold discloses “*provid[ing] the second utterance within the content*” because Gold’s “voice message and the song [may be] combined to create a single electronic data file suitable for replay by a digital audio system” and “sent to a recipient...for replay.” EX1005, [0040], [0070]; EX1002, ¶143.

VI. GROUND 2: WEIDER, GOLD, AND MARTINEZ

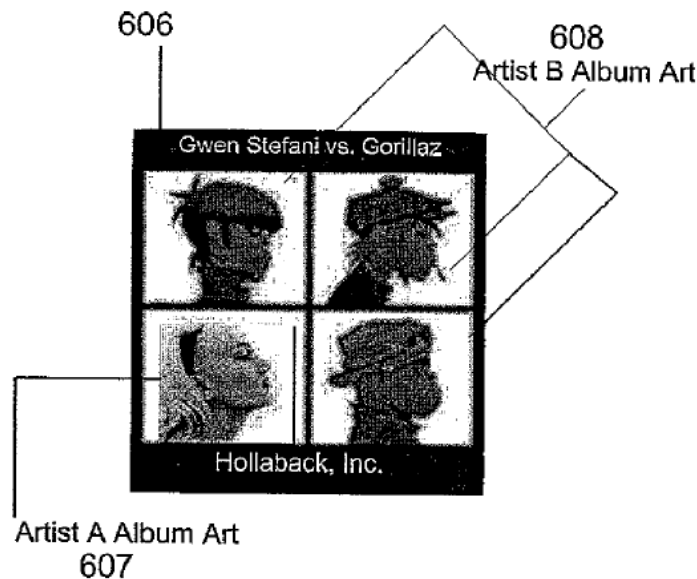
A. Claim 2

As discussed for limitation [1.b(ix)], Weider in combination with Gold renders obvious “*provid[ing] the one or more words or phrases of the second utterance as textual annotations within metadata of the content.*” EX1002, ¶144. Martinez further discloses “*provid[ing] an image as one or more tags within [the] metadata of the content.*” *Id.*

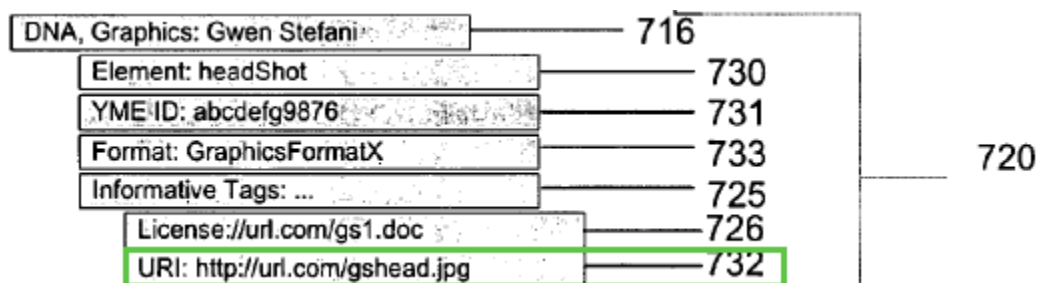
Martinez describes a container-based approach for storing content metadata, inserting metadata from media items “into at least one data container” that may comprise “any number and type of set(s) of metadata associated with a media item portion.” EX1006, [0029], [0035]; EX1002, ¶145. A POSITA would have

understood that data containers were a well-known file format that stored data (e.g., audio data) and “tags” comprising text strings of metadata. EX1002, ¶145.

The data containers include “at least one set of informative tags associated with the composite media item.” EX1006, [0016], [0050]; EX1002, ¶146. A container “may be created using...XML [or] linear strings of data,” (EX1006, [0044], [0004]), which a POSITA would have recognized use tags to structure information. EX1002, ¶146. Martinez further discloses “*provid[ing] an image as one or more tags within metadata of the content.*” *Id.*, ¶147. Martinez cites a “graphical image such as a jpeg” as a type of metadata. EX1006, [0045]; EX1002, ¶147. A POSITA would have understood that media content is typically associated with images, such as album cover art. EX1002, ¶147. For example, metadata for a composite media item “Hollaback Inc.” includes “a graphic image 606” created from “a graphic image from ‘Hollaback’ 607 and a graphic image from ‘Feel Good Inc’ 608,” i.e., “album art.” EX1006, [0058], FIG. 6 (excerpted).



A POSITA would have found it obvious to provide an image (e.g., album art) as a “*tag[] within metadata of the content.*” EX1006, [0049]-[0050]; EX1002, ¶148. Martinez describes that a metadata tag in a data container could point to an image location or contain the image data itself. EX1006, [0052], [0058]; EX1002, ¶148. For example, as illustrated in FIG. 7, metadata subset 720 is “a graphical image such as a jpeg” and includes **informative tag 732** “compris[ing] a pointer to a physical file location where a media item portion or media item may be found.” EX1006, [0045], [0052]; EX1002, ¶148.



Alternatively, “[t]he media itself might be directly embedded within the metadata subset and/or data container.” EX1006, [0052]. Because the image data (media item portion) or a reference to an image can be stored as the value of a tag, the image is “*provide[d] as one or more tags within metadata of the content.*” EX1002, ¶148.

A POSITA would have found it obvious to modify the Weider-Gold system to include Martinez’s image data, e.g., by providing album art with a dedicated song to allow the recipient to identify the song, artist, and/or album. EX1006, [0038], [0041]; EX1002, ¶149. Providing the image as a “*tag[] within metadata of the content*” would have provided an efficient way of conveying the image to the recipient with the content, e.g., by keeping the image and content packaged together, improving playback and display consistency, and simplifying the system architecture. EX1002, ¶149. This combines prior art elements—Weider’s disclosure that metadata may include different types of data and Martinez’s disclosure of one data type (image tags)—according to known methods to yield the predictable result

of the metadata including Martinez’s image tags. EX1004, [0123]; EX1006, [0044], [0047]; EX1002, ¶150.

B. Claim 9

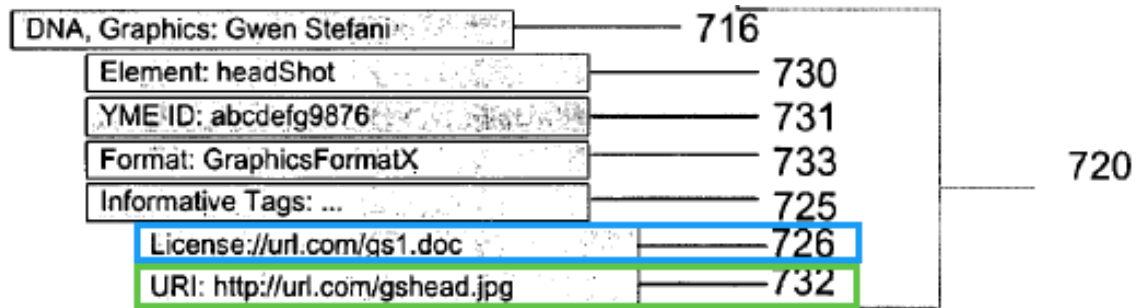
Claim 9 is substantively identical to claim 2 and is obvious for the same reasons. EX1002, ¶151.

C. Claim 17

As discussed for claim 2, Weider in combination with Gold and Martinez renders obvious “*provid[ing] [data] as one or more tags within metadata of the content.*” *Id.*, ¶152. Martinez further discloses that the data includes “*an electronic link associated with the content.*” *Id.*, ¶153. For example, Martinez discloses that the metadata subset can include “a URL or link to the official webpage of the artist, album, rights holder, or producer associated with the media item” (EX1006, [0037], [0040], [0047]), which is an “*electronic link associated with the content.*” EX1002, ¶153.

Martinez also “*provide[s]*” the link “*as one or more tags within metadata of the content.*” EX1002, ¶154. Metadata subset 720 includes **informative tag 726** comprising “a pointer to licensing information” for a media item and **informative tag 732** “compris[ing] a pointer to a physical file location where a media item portion

or media item may be found.” EX1006, [0051], [0052], FIG. 7 (excerpted); EX1002, ¶154.



These pointers are tags within metadata (metadata subset 720) of the content (media item) and comprise an electronic link associated with the content. EX1002, ¶154.

A POSITA would have found it obvious to modify the Weider-Gold system to “*provide an electronic link associated with the content as one or more tags within metadata of the content*” as disclosed by Martinez. *Id.*, ¶155. Where the metadata includes an image (e.g., album art), providing a pointer to the image within the metadata would have reduced the metadata file size and enabled faster load and transfer times than if the metadata contained the image itself. *Id.* A POSITA would have been motivated to make this combination for the reasons discussed above for claim 2. *Id.*

D. Claim 18

The '025 patent describes a “*voice tag*” as a natural language utterance. EX1001, 29:25-27 (“a natural language utterance that includes information to be inserted as voice-tags for the dedicated content”), 29:52-54; EX1002, ¶156.

As discussed for claim 2, Weider in combination with Gold and Martinez renders obvious “*provid[ing] [data] as one or more tags within metadata of the content.*” EX1002, ¶157. Martinez further discloses that the data includes audio data. For example, Martinez recites that metadata “may comprise any number and combination of information or data about a media item portion” and recognizes that “the format type of each of the metadata subsets...may be audio.” EX1006, [0047], [0049], [0045]; EX1002, ¶158. It would have been obvious that an audio metadata tag could be a natural language utterance (“*voice tag*”), e.g., to allow the sender to provide additional dedication utterances. EX1002, ¶159. Moreover, it would have been obvious to “*provide [the] voice tag as one or more tags within metadata of the content*” given Martinez’s disclosure of tag-based methods for creating data containers. EX1006, [0044]; EX1002, ¶159. A POSITA would have been motivated to make this combination for the reasons discussed above for claim 2. EX1002, ¶159.

VII. GROUND 3: WEIDER, GOLD, AND GINTER

A. Claim 4

Gold's system includes a "database of songs for use in the dedication." EX1005, [0007], [0036]; EX1002, ¶160. To the extent Gold does not explicitly disclose "*purchas[ing] the content*" for the song database "*from a content provider*," the combination with Ginter renders this obvious. EX1002, ¶161. Ginter describes a virtual distribution environment that "protect[s] the rights of parties who have...commercial interests in electronically distributed information" by "ensur[ing]...that parties will be paid for use of distributed information." EX1009, 2:19-24, 4:28-34. For example, "an electronic agreement between a content creator and a distributor may establish...the price to the distributor for a creator's content...that this distributor may distribute to end users." *Id.*, 47:24-30; EX1002, ¶161.

A POSITA would have understood that Ginter's distributor "purchase[s] the content" from the content creator, e.g., according to the terms of the electronic agreement, because the purchase enables the distributor to distribute legally the content to end users. EX1009, 7:58-61 ("Electronic rights protection provided by the present invention will also provide an important foundation for...electronic purchasing."); EX1002, ¶161.

It would have been obvious to modify the Weider-Gold system to incorporate Ginter's purchasing of content from content creators. EX1002, ¶162. Ginter discloses that the purchased content includes music. EX1009, 141:8-9 ("content may include:...music"), 1:58-60, 56:49-51, 59:28-30; EX1002, ¶162. Gold discloses that the content dedication service includes a song database. EX1005, [0007]; EX1002, ¶162.

In the combined system, Gold's service is a distributor, and Ginter's content creator is the content provider. EX1009, 3:48-56 ("[T]he present invention...can help ensure that content providers will be paid for use of distributed information."), 2:27-59, FIG. 80; EX1002, ¶163. It would have been obvious to populate Gold's song database by "***purchas[ing] the content from a content provider***" (per Ginter) because this is how music is conventionally acquired, i.e., users and services buy song rights from rights holders. EX1016, [0051] (A user "engage[s] in an on-line commerce transaction in which the user pays for access rights to [a] particular media item."), [0010]; EX1009, 3:19-21; EX1002, ¶164. Indeed, Ginter discloses storing purchased content in a content repository for distribution to users. EX1009, 309:25-38, 311:44-51, 314:1-2, 315:59-316:15, FIG. 78; EX1002, ¶164.

In the combination, the Weider-Gold-Ginter content dedication system purchases content from content providers (e.g., artists or record companies) and

functions as a distributor by sending (distributing) information “*to enable the recipient to access the content*,” as discussed for limitation [1.b(x)]. EX1002, ¶165. Applying Ginter’s content purchasing method to build Gold’s song database is a combination of prior art elements according to known methods—Gold’s distribution of database content to dedication recipients and Ginter’s method of acquiring content via purchase from content creators—to yield predictable results—a song dedication system populated with content purchased from content creators. *Id.*

B. Claim 11

Claim 11 is substantively identical to claim 4 and is obvious for the same reasons. *Id.*, ¶166.

VIII. GROUND 4: WEIDER, GOLD, GINTER, AND WANG

A. Claim 5:

[5.a]

For purposes of this Petition, Petitioner interprets “*buy-to-own*” and “*pay-to-play*” purchase options in this limitation as referring to purchase of the content associated with the dedication and interprets a “*paid subscription purchase option*” as referring to a subscription for use of the content dedication system. EX1001, 35:41-44, 35:52-56, 35:64-36:3; EX1002, ¶167.

Gold’s dedication service allows senders to “use the invention to purchase and send a dedication for a fee.” EX1005, [0009]. To the extent Gold does not explicitly

disclose that the fee is “*a purchase option that includes one or more of a buy-to-own purchase option, a pay-to-play purchase option, or a paid subscription purchase option*,” the combination with Wang renders this obvious. EX1002, ¶168.

Wang discloses that a user can purchase an identified song. *Id.*, ¶169. Wang’s “signal identification service” enables a user to identify and purchase a song using multiple “purchase options.” EX1007, [0012], [0026], [0084]; EX1002, ¶169. For example, “[d]igital delivery and fulfillment techniques may [] be used, including digital downloads to users’ [devices].” EX1007, [0025]. A POSITA would have understood that a purchase including a digital download could be a “*buy-to-own purchase option*” because the user’s purchase entitles it to own the downloaded file. EX1002, ¶169. Wang also uses subscription-based purchase options, disclosing that “subscription arrangements with users may be established and revenue received.” EX1007, [0062], [0038]; EX1002, ¶169. A “subscription arrangement” that generates revenue for use of Wang’s service is a “*paid subscription purchase option*.” EX1002, ¶169.

Wang also discloses “*identify[ing]...a purchase option*.” “[T]he user is [] provided an opportunity to place an order” for the identified music, via the disclosed purchase options, such as by purchasing “an album on CD” or the “digital download.” EX1007, [0070]. Wang’s service then “generat[es] a bill to the user

commensurate with the extent of the usage of the signal identification service.” EX1007, [0070], [0049]; EX1002, ¶170. Because Wang provides multiple purchase options and bills the user “commensurate with” service usage, a POSITA would have understood that the service would provide the purchase options to the user and “*identify...a purchase option*,” e.g., in response to the user selection. EX1002, ¶170.

It would have been obvious to modify the Weider-Gold-Ginter system to incorporate Wang’s purchase options. *Id.*, ¶171. First, it would have been obvious to use a “*buy-to-own purchase option*” for the dedication to enable the recipient to download the dedicated song (e.g., for replay on command). *Id.* This would have been an obvious way to implement Gold’s transmission of the dedication in a physical computer file. EX1005, [0008]; EX1002, ¶171. Second, it would have been obvious for the fee charged to Gold’s user to be a “paid subscription” for use of the service, as taught by Wang or a “buy-to-own” fee, e.g., for each dedication the user sends because both “*buy-to-own*” and “*paid subscription*” purchase models for content and use of services were well known. EX1005, [0009]; EX1002, ¶171. A POSITA would have been motivated to make this combination because, like Gold, Wang contemplates that the user can share content with others, e.g., by “instruct[ing] the service to send a recommendation for the identified song...or a clip of the song

to the friend's mobile telephone.” EX1007, [0042], [0043]; EX1002, ¶171. The result of the combination is predictable for the same reasons. EX1002, ¶171.

Moreover, where the purchase option is “*buy-to-own*,” it would have been obvious that some of the user payment would be passed to the content provider as part of the purchase that the distributor (Gold's service) makes in claim 4. EX1002, ¶172. This is consistent with the '025 patent, which discloses that the amount charged to the user includes “the cost for purchasing the content from the content provider.” EX1001, 30:52-56. Alternatively, for a “*paid subscription purchase option*,” it would have been obvious for the system to use a subscription service to recuperate the cost of building the song database. EX1002, ¶172. A POSITA would have recognized that the disclosed purchase options would have enabled the operator of the combined system to generate profit for its service and would have found it obvious to incorporate the purchase options into the Weider-Gold-Ginter system because each is a well-known billing model. *Id.*, ¶173. To charge users (EX1005, [0009]), a POSITA would have looked to known billing strategies for content delivery, as disclosed by Wang. EX1016, [0010], [0051] (A user “engage[s] in an on-line commerce transaction in which the user pays for access rights to [a] particular media item.”); EX1002, ¶173. This combination uses a known technique (Weider's digital download or subscription-based monetization model) to improve

a similar product (a digital content system) in the same way (enabling revenue generation). EX1002, ¶173.

[5.b]

Wang “*bill[s] a user*” by “generat[ing] a bill...commensurate with the extent of the usage of the signal identification service” and “[debiting] the user’s account.” EX1007, [0070], [0043]; EX1002, ¶174.

In the combined system, the dedication sender is billed for the dedication as taught by Gold, and the billed fee is based on the identified purchase option as taught by Wang. EX1002, ¶175. Because the sender selects a song title by speaking the first utterance, that user is “*associated with the first utterance.*” *Id.* It would have been obvious that the user who is billed for the content dedication is the user who is “*associated with the first utterance.*” *Id.* For example, a POSITA would have recognized that the user “*associated with the first utterance*” is the user initiating the transaction and sending the dedication, and it would have been obvious to bill the sender because it is the sender that is using the for-profit service. *Id.*

It would have been obvious to incorporate Wang’s billing functionality into the Weider-Gold-Ginter system. *Id.*, ¶176. As discussed above, Gold’s user can “purchase and send a dedication for a fee.” EX1005, [0009]. A POSITA would have understood that providing a service for a fee includes billing the user the

amount of the fee. EX1002, ¶176. Moreover, given Wang’s multiple purchase options, as discussed for limitation [5.a], it would have been obvious that the system bills the user “*based on the [identified] purchase option*” because a bill would allow the provider of the fee to collect the fee. *Id.*

B. Claim 12

Claim 12 is substantively identical to claim 5 and is obvious for the same reasons. *Id.*, ¶177.

IX. GROUND 5: WEIDER, GOLD, AND WANG

A. Claim 15

[15.a]

Gold discloses that the sender can “listen to a song...to confirm that it is the song the sender wants” to dedicate to a recipient. EX1005, [0007], [0048], FIG. 5 (excerpted); EX1002, ¶178.

Jukebox: Search Results

Your search returned 1 matches.

410	ID:	228	405
415	Artist:	David Bowie	
420	Song:	Fame	
425	Year:	75	
Audio:		Play Song	Dedicate Song

430

| [New Search](#) | [List All](#) |

400

A song is a “*media item*,” and a POSITA would have understood that the system “*determine[s] that [the] user is interacting with [the] media item*” when the user initiates playback (e.g., via the “[Play Song](#)” link) on the sender device. EX1005, [0048]; EX1002, ¶178.

Additionally, Wang describes an “impulse purchase phenomenon” that allows “a music seller to take advantage of a potential impulse purchase resulting from a listener hearing the song (for perhaps the first time) in a car or other location that is remote from normal retail locations.” EX1007, [0009]; EX1002, ¶179. Wang’s user “captures a sample of an audio stream,” and “transmits the sample” to the service for identification. EX1007, [0019], [0020]. The audio stream may be “music being played over a music playing device such as a radio” or “pre-recorded audio” that the user plays back on their device. EX1007, [0012], [0020], [0056].

The audio sample is a segment of a “*media item*” (e.g., a song), and by providing the sample for identification by Wang’s signal identification service, the user “*interact[s] with the media item.*” EX1007, [0057]; EX1002, ¶180. Wang’s service “*determine[s] that [the] user is interacting with [the] media item*” by identifying the song being played. EX1002, ¶180.

In the Weider-Gold-Wang system, the user selects a song title to dedicate to a recipient by speaking the song title or by sending a snippet of the song to the Weider-Gold server, which identifies the song as taught by Wang. EX1002, ¶181. A POSITA would have been motivated to make this combination to take advantage of Wang’s “impulse purchase phenomenon” by allowing a user listening to a song to dedicate the song to another user rather than searching separately for the song as in Gold. *Id.* This is a simple substitution of one known element (Gold’s search-based content identification techniques) for another (Wang’s signal processing-based content identification techniques) to obtain predictable results (identifying a song to dedicate to a recipient). *Id.*

[15.b]

While the term “*natural language processing*” (NLP) lacks antecedent basis, for purposes of this analysis, Petitioner interprets this term as referring to the

interpretation of the first utterance by the conversational language processor, as discussed for limitation [1.b(iv)]. EX1002, ¶182.

As discussed for limitation [15.a], Gold's sender "*interact[s] with a media item*" by playing a song on the sender device. EX1005, [0007]; EX1002, ¶183. And as discussed for limitations [1.b(ii)]-[1.b(iv)], Weider uses NLP to interpret user utterances, including the first utterance. EX1004, [0093], [0130]; EX1002, ¶183. In the combined system, the user speaks the first utterance to select a song, interacts with the song by initiating playback, and says "dedicate this song." EX1002, ¶183. The system "*identiffies]...the media item as the content*" based on Weider's "*natural language processing*" of the first utterance and Gold's "*interaction of the user with the media item.*" *Id.*

Additionally, as discussed for limitation [15.a], Wang's signal identification service "*determine[s] that a user is interacting with a media item*" by identifying a song being played. EX1007, [0012], [0020]; EX1002, ¶184. In the combined system, the user interacts with the system by voice, provides an audio sample that Wang identifies as the song, and says "dedicate this song." EX1002, ¶184. The system "*identiffies]...the media item as the content*" using Weider's "*natural language processing*" techniques, including processing the first utterance, and Wang's "*interaction of the user with the media item.*" *Id.*

A POSITA would have been motivated to make this combination to extend Wang's "impulse purchase phenomenon" by allowing a user to dedicate the identified song to another user. EX1002, ¶185. Wang discloses that a user can provide input to the interactive voice response system using voice commands (EX1007, [0037]); it would have been obvious to use Weider's NLP techniques to interpret those commands. EX1002, ¶185. Wang contemplates using these techniques, noting that "voice recognition methodologies are employed to translate the user's voice responses into usable system inputs." EX1007, [0084]; EX1002, ¶185.

Moreover, Wang's user can "send a recommendation for the identified song...or a clip of the song to the friend's mobile telephone." EX1007, [0042]-[0043]. It would have been obvious that the recommendation includes a voice message, such as Gold's dedication. EX1002, ¶186. This is a simple substitution of one known element (Gold's search-based content identification techniques) for another (Wang's signal processing-based content identification techniques) to yield predictable results (identifying a song to dedicate to a recipient). *Id.*

B. Claim 16

[16.a]

As discussed for limitation [15.a], Gold’s user can “[s]elect a ‘Play Song’ link 430 caus[ing] the [system] to send the song to the sender’s web client” for playback. EX1005, [0048]; *see also id.*, [0007], [0031], FIG. 5. A POSITA would have understood that the system “***determine[s] a media item that [the] user is playing***” when the sender (user) initiates playback of the song (media item). EX1002, ¶187.

Additionally, as discussed for limitation [15.a], Wang’s user “captures a relatively short sample of music being played over a music playing device” and transmits the sample to the signal identification service, which “identifies the song to the user in real-time.” EX1007, [0012], [0020], [0056]; EX1002, ¶188. A POSITA would have understood that Wang’s service “***determine[s] a media item that the user is playing***” when it identifies a song playing on the “music playing device.” EX1002, ¶188.

[16.b]

Wang discloses that the user can “***provide[] [an] utterance during the playing of the media item by the user.***” *Id.*, ¶190. For example, Wang’s user can provide “voice commands” that may be made “while listening to the music,” i.e., “***during the playing of the media item by the user.***” EX1007, [0002]; *see also id.*, [0059]

(the system uses “real-time identification of songs” to provide the user “the song and artist information that they wish to know...as soon as they hear it”), EX1002, ¶¶189-190.

In the Weider-Gold-Wang system, the user “*provide[s] the first utterance*” while the song plays, e.g., contemporaneously with the user providing the audio sample to the server, as taught in Wang. *Id.*, ¶191. Allowing the user to provide the first utterance “*during the playing of the media item by the user*” would have been an obvious extension of Wang’s “impulse purchase phenomenon” by enabling the user to share the identified song. EX1007, [0043]; EX1002, ¶191. The system “*determines that the user provided the first utterance*” using Weider’s natural language processing techniques, as discussed for limitations [1.b(ii)]-[1.b(iv)]. EX1002, ¶191. This combination involves use of a known technique (Wang receiving and processing voice commands while music is playing) to improve a similar device (the combined content dedication system) in the same way (supporting impulse-based user action). *Id.*

[16.c]

Weider in combination with Gold and Wang renders this limitation obvious for the reasons provided for limitation [15.b]. Additionally, the combined system “*identifies]...based on the...determination that the user provided the first*

utterance during the playing of the media item, the media item as the content to dedicate to the recipient.” Wang identifies the “voice commands,” including an instruction to “send a recommendation for the identified song,” made by the user while the music is playing. EX1007, [0002], [0059], [0043]; EX1002, ¶192. In the combined system, these “voice commands” include the “*first utterance*” as explained in limitation [16.b]. The content is then dedicated based on this “*first utterance*” made in conjunction with the “*second utterance*” while the media item is playing. EX1002, ¶192.

X. GROUND 6: KENNEWICK, GOLD, AND WEIDER

A. Claim 1

[1.pre]

Kennewick discloses “[a] *system for providing a natural language...service.*” *Id.*, ¶¶193-194. A “mobile interactive natural language speech system” (EX1008, [0011]) “receives spoken natural language...utterances from a user,” e.g., a command to “tune in my favorite radio station” or to “listen to a particular piece of music.” EX1008, [0014], [0027], [0018]. The system includes a **speech unit 128** that receives utterances and a **main unit 98** that processes utterances. EX1008, [0095]-[0097], [0111], FIGS. 1-3, 6; EX1002, ¶¶193-194.

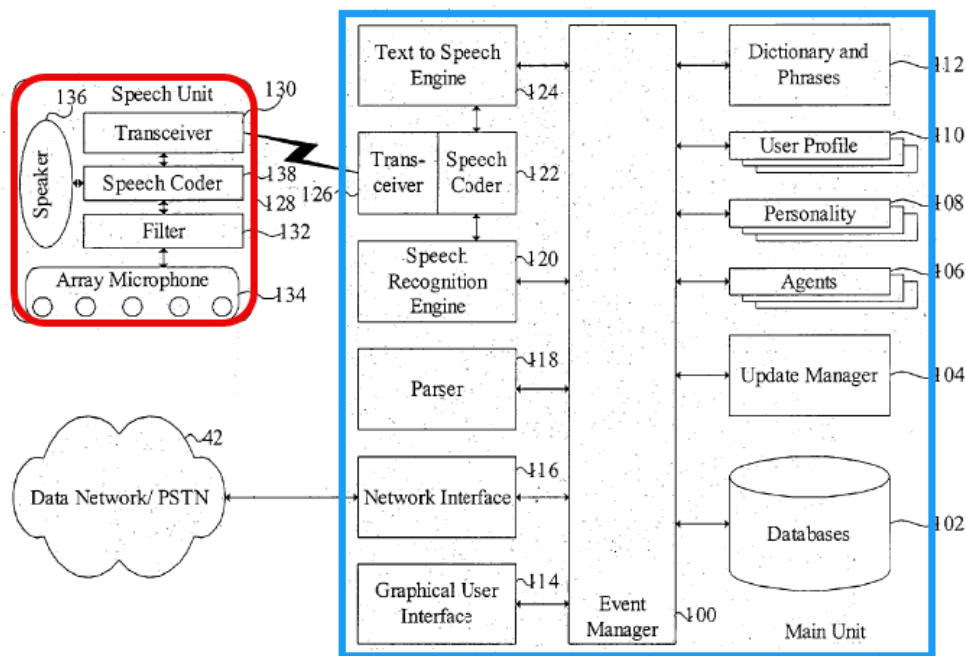


Figure 5. Speech Processing System Block Diagram

Kennewick’s system is “*for providing a natural language...service*” because the system processes and responds to natural language utterances, e.g., where the user provides a command to “listen to a particular piece of music,” the system can “retrieve [the music]” and “activate a suitable player.” EX1008, [0018], [0027]; EX1002, ¶195.

Gold discloses that the system “*provid[es] a...content dedication service,*” as discussed for the preamble [1.pre] of Ground 1. *Id.*, ¶196.

It would have been obvious to modify Kennewick to include Gold’s content dedication service to achieve a “*natural language content dedication service.*” *Id.*, ¶197. Kennewick’s natural language service enabled users to play specific songs.

EX1008, [0027], [0018]; EX1002, ¶197. A POSITA would have been motivated to add Gold's content dedication functionality to Kennewick's service to enable users to share songs with others because "song dedications can be an effective way to convey and share complex emotions and memories." EX1005, [0006]; EX1002, ¶197. This combines prior art elements according to known methods to yield predictable results because Kennewick uses a flexible agent-based architecture to provide natural language services "in a wide range of domains" and Gold's song dedication service is one type of domain. EX1008, [0002], [0017]; EX1002, ¶198. A POSITA would have found it obvious to use Gold's functionality within Kennewick's system, e.g., by using Kennewick's domain agent to provide Gold's content dedication service, and would have had a reasonable expectation for its success. EX1002, ¶198.

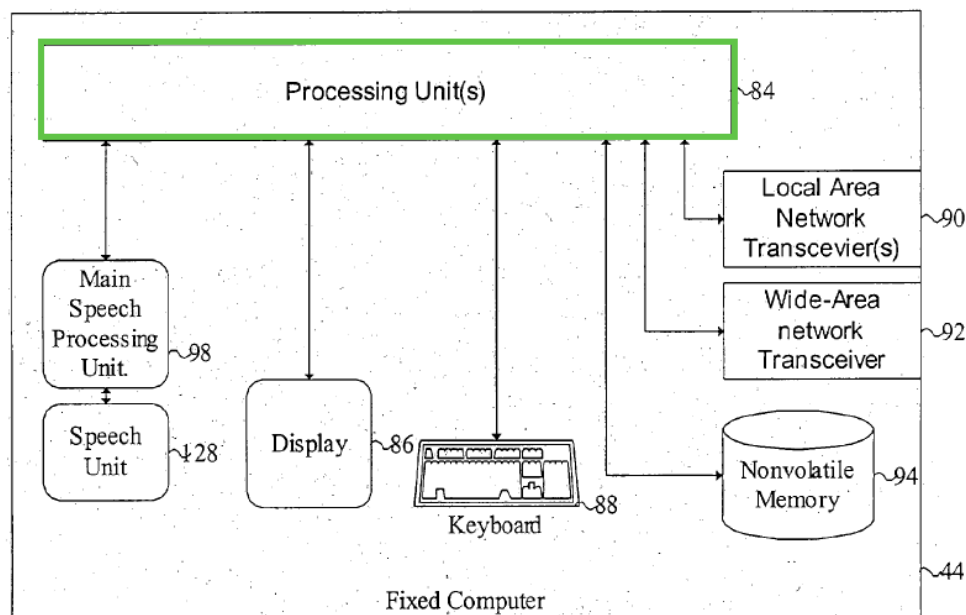
Alternatively, it would have been obvious to combine Gold and Kennewick for the reasons the Examiner provided during prosecution (EX1003, 187-98, 129-44), e.g., by substituting Kennewick's natural language command for Gold's UI-based instruction to dedicate content. EX1002, ¶199. For example, it would have been obvious to use Kennewick to process a natural language utterance and to route the utterance as input, e.g., to identify content, to Gold's song dedication system. *Id.* This is a simple substitution of one known element (Kennewick's method of

receiving and processing natural language utterances) for another (Gold's UI-based song selection method). EX1002, ¶199.

During prosecution, the Examiner rejected preamble [1.pre] based on Kennewick, and the Applicant did not dispute the Examiner's rationale. EX1003, 395-96, 190, 145-65; EX1002, ¶200.

[1.a]

Kennewick's system contains "one or more **processing units 70**," which "may include one or more central processing units." EX1008, [0111]; EX1002, ¶201.



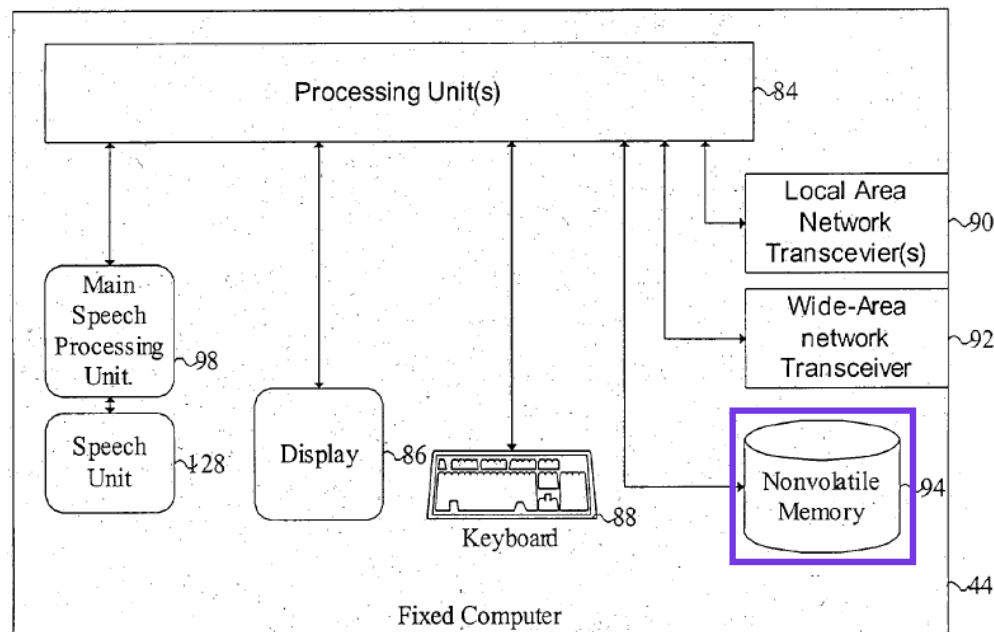
See also *id.*, [0115], FIGS. 1-2, 4-6. A central processing unit is "**one or more processors**." EX1024, 132; EX1002, ¶201.

Gold also discloses "**one or more processors**," as discussed for limitation [1.a] of Ground 1. EX1002, ¶202.

During prosecution, the Examiner rejected limitation [1.a] based on Kennewick, and the Applicant did not dispute the Examiner's rationale. EX1003, 190, 145-65; EX1002, ¶203.

[1.b]

Kennewick's processor uses “non-volatile memory” such as “flash memory and hard disk drives” for “software and data storage” that meet the “*one or more non-transitory computer readable mediums*” limitation. EX1008, [0011], FIG. 3; EX1002, ¶204.



See also *id.*, [0114]-[0115], FIG. 4.

Kennewick's computer readable medium “*stor[es] executable instructions.*” EX1002, ¶205. The speech processing unit contains executable instructions called

“software modules,” including the “speech recognition engine,” “parser,” and “text-to-speech engine.” EX1008, [0123]-[0124], FIG. 4; EX1002, ¶205. Kennewick also discloses executable instructions called “agents,” which are “packages of executable code.” EX1008, [0017]; EX1002, ¶205. A POSITA would have understood that software modules and packages of executable code are “*executable instructions*” that are stored in the “*one or more non-transitory computer readable mediums*” and that the instructions, “*when executed by the one or more processors cause the one or more processors to*” perform programmed operations. EX1002, ¶205.

Gold also discloses “*one or more non-transitory computer readable mediums storing executable instructions that when executed by the one or more processors cause the one or more processors to*” perform programmed operations, as discussed for limitation [1.b] of Ground 1. *Id.*, ¶206.

During prosecution, the Examiner rejected limitation [1.b] based on Kennewick, and the Applicant did not dispute the Examiner’s rationale. EX1003, 190, 145-65. EX1002, ¶207.

[1.b(i)]

Kennewick’s speech unit interface device “receive[s] human speech” (EX1008, [0038]), like a command to “listen to a particular piece of music.”

EX1008, [0018], [0027]; EX1002, ¶208. Such a command is “*a first utterance that includes a natural language utterance.*” EX1002, ¶208.

Kennewick also “*receiv[es] [the] first utterance*” at the **speech unit 128**, which includes “one or more **microphones**” to “receive the utterances of the user.” EX1008, [0121]; [0028], [0038]; EX1002, ¶209.

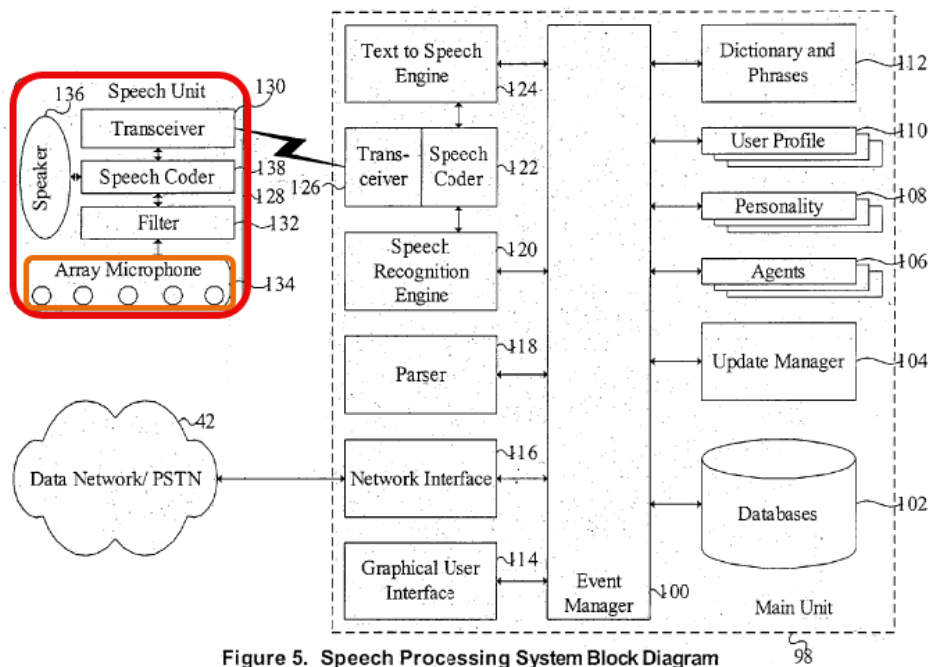


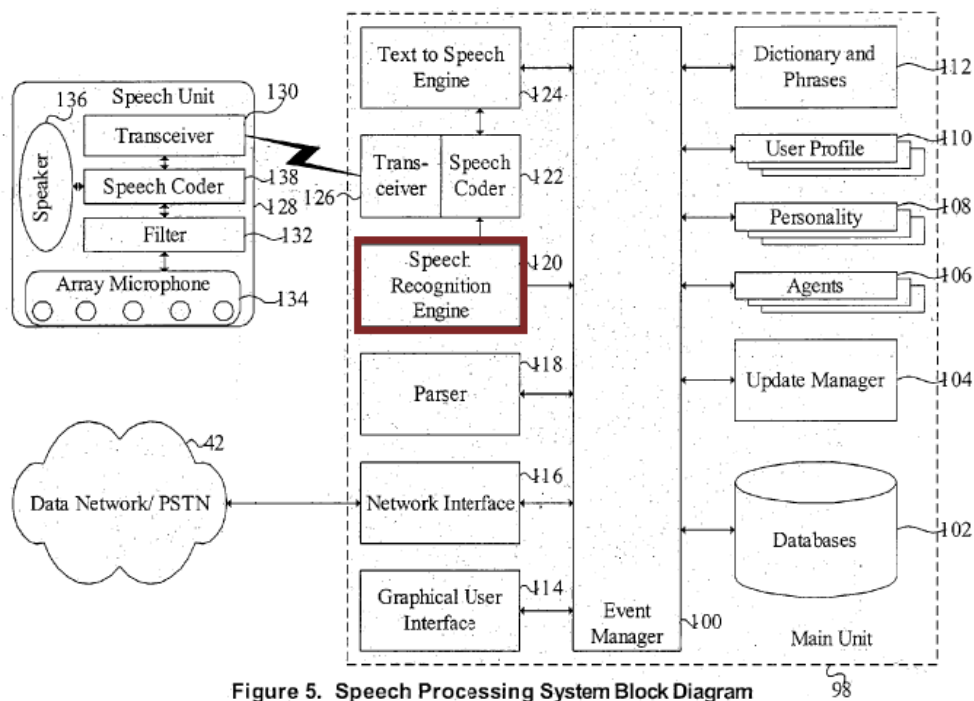
Figure 5. Speech Processing System Block Diagram

During prosecution, the Examiner rejected limitation [1.b(i)] based on Kennewick, and the Applicant did not dispute the Examiner’s rationale. EX1003, 190, 145-65; EX1002, ¶210.

[1.b(ii)]

Kennewick’s “speech recognition engine” “*process[es] the first utterance*” to “*determine...one or more words or phrases of the first utterance.*” Specifically,

Kennewick discloses that speech input is “passed to the speech coder 122 for decoding and decompression” before being “fed to the **speech recognition engine 120**,” which “recognizes words and phrases” by processing the decoded speech “using data in the dictionary and phrases module 112.” EX1008, [0123], [0155], FIG. 5; EX1002, ¶¶211-213.



And because these steps are performed “for each utterance” (EX1008, [0028], [0155]), the speech recognition engine “*determines one or more words or phrases of the first utterance*” (the command to listen to a particular piece of music). EX1002, ¶213.

During prosecution, the Examiner rejected limitation [1.b(ii)] based on Kennewick, and the Applicant did not dispute the Examiner’s rationale. EX1003, 191, 145-65. EX1002, ¶214.

[1.b(iii)]

Kennewick’s speech recognition engine “*provide[s] the one or more words or phrases as an input to a conversational language processor.*” Specifically, “once the words and phrases have been recognized,” Kennewick’s speech recognition engine “pass[es] these [words and phrases] to the **parser 118** for interpretation.” EX1008, [0160], [0155], FIG. 5; EX1002, ¶¶215-216.

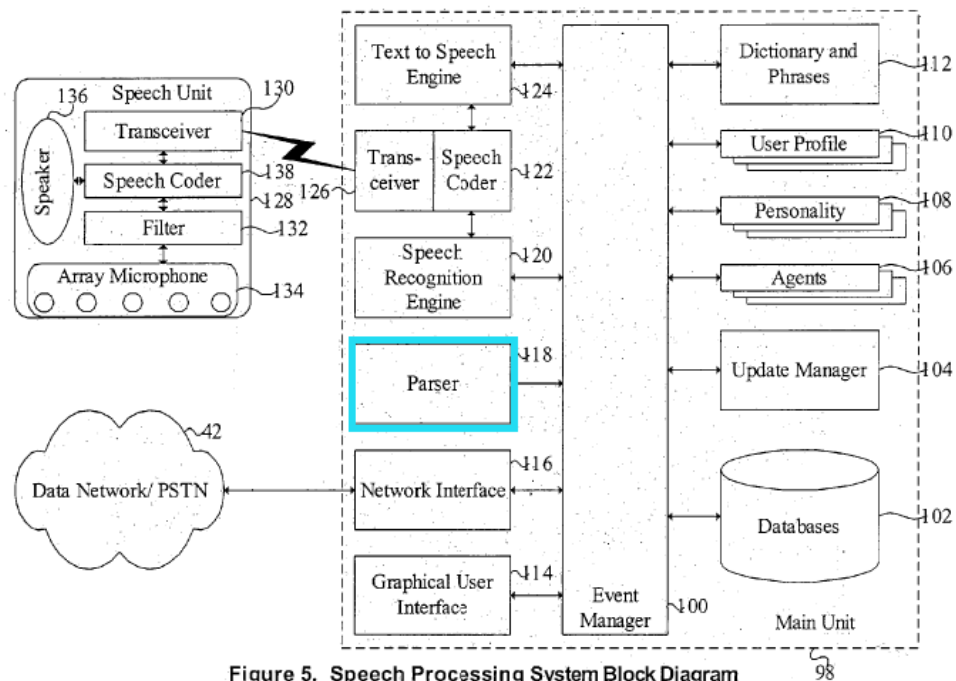


Figure 5. Speech Processing System Block Diagram

A POSITA would have recognized that Kennewick’s parser is a “*conversational language processor*” because the parser interprets the recognized

words or phrases. EX1002, ¶217. Specifically, the parser “examines [] tokens” corresponding to the words and phrases and determines a context for the utterance “by applying prior probabilities or fuzzy possibilities to keyword matching, user profile 110, dialog history, and context stack contents.” EX1008, [0160]; EX1002, ¶¶216-217. The system uses the context to “invoke the correct agent” to process the utterance. EX1008, [0160], [0123]; EX1002, ¶216. This is consistent with the ’025 patent, which recites that the conversational language processor “determin[es] a most likely context for the interaction from the preliminary interpretation of the utterance” and “invoke[s] one or more agents 132c having capabilities for processing requests in a particular domain or application.” EX1001, 13:9-12; EX1002, ¶218. The speech recognition “*provide[s] the one or more words or phrases as input to the conversational language processor*” by “passing” the words and phrases to Kennewick’s parser. EX1002, ¶218.

[1.b(iv)]

A POSITA would have understood that Kennewick’s parser (the “*conversational language processor*”) “*interpret[s] the first utterance...based on the one or more words or phrases*” because the speech recognition engine “pass[es]” the recognized words and phrases “to the parser 118 for interpretation.” EX1004,

[0155], [0028] (“For each user command utterance, the system...pars[es] and interpret[s] the command”); EX1002, ¶219.

[1.b(v)]

Kennewick discloses “***identify[ing], based on the interpretation of the first utterance, content.***” *Id.*, ¶¶220, 225. As discussed for preamble [1.pre], Kennewick retrieves a requested piece of music responsive to a user command. EX1008, [0018] (the system “locate[s] a source for the music and retrieves it”). A POSITA would have understood that Kennewick’s system “***identifies]***” the music (content) “***based on the interpretation of the first utterance***” to locate and retrieve the music for the user. EX1002, ¶220.

Gold discloses “***identify[ing]...content to dedicate to a recipient,***” as discussed for limitation [1.b(v)] of Ground 1. *Id.*, ¶221.

A POSITA would have found it obvious to integrate Gold’s content dedication functionality into Kennewick’s natural language system, enabling a user to speak into Kennewick’s speech interface a song title that the system uses to “***identify...content to dedicate to a recipient.***” *Id.*, ¶222. Using the speech interface to dedicate an identified song would have furthered Kennewick’s goal of “allow[ing] a person to make natural language speech-based queries” and supplemented the “wide range of domains” with which the system may be used. EX1008, [0005],

[0002]; EX1002, ¶222. This involves applying a known technique (Gold’s content dedication functionality) to improve a similar device (Kennewick’s interactive natural language system) in the same way (enabling users to dedicate content). EX1002, ¶223.

Alternatively, as discussed for preamble [1.pre], it would have been obvious to combine Gold and Kennewick for the reasons the Examiner identified during prosecution, e.g., modifying Gold by substituting Kennewick’s method of identifying content using natural language utterances for Gold’s UI-based content identification technique. EX1003, 187-98, 129-44; EX1002, ¶224. A POSITA would have been motivated to make this combination for the reasons discussed above for preamble [1.pre]. EX1002, ¶224.

During prosecution, the Examiner rejected a limitation similar to issued limitation [1.b(v)] based on Kennewick and Gold, and the Board affirmed the rejection. EX1003, 133-35, 79-82. EX1002, ¶226.

[1.b(vi)]

Kennewick “*initiat[es]*” an action “*based on the identified content*” by “locat[ing] a source for [requested] music and retriev[ing] it.” EX1008, [0018]; EX1002, ¶227. A POSITA would have understood that the song the system retrieves

is the song (content) that it identifies in limitation [1.b(v)]; the action is therefore initiated “*based on the identified content.*” EX1002, ¶227.

Gold discloses “*initiat[ing]...a dedication to the recipient,*” as discussed for limitation [1.b(vi)] of Ground 1. EX1005, [0036]-[0038], FIG. 2; EX1002, ¶228.

A POSITA would have found it obvious to integrate Gold’s functionality for “*initiat[ing]...a dedication*” into the combined natural language content dedication service. EX1002, ¶229. In the combined system, Kennewick’s speech interface sends the user instructions to record a dedication voice message. EX1004, [0172] (an agent can “[a]sk the user for more information, typically through the speech interface”), [0124] (an agent may output speech to a user); EX1002, ¶229. A POSITA would have been motivated to make this combination to create “a complete speech-based information query, retrieval, presentation and command environment,” as taught by Kennewick. EX1008, [0011]; EX1002, ¶229. This involves applying a known technique (Gold’s content dedication functionality) to improve a similar device (Kennewick’s interactive natural language system) in the same way (enabling users to dedicate content). EX1002, ¶229.

During prosecution, the Examiner rejected limitation [1.b(vi)] based on Gold, and the Board affirmed the rejection. EX1003, 191, 83. EX1002, ¶230.

[1.b(vii)]

Weider discloses that the user can provide “speech annotations” for objects, such as digital media. EX1004, [0120], claim 23; EX1002, ¶231. The speech annotation is “stored along with the object[] by a server.” EX1004, [0120], [0121]. A speech annotation is an “**utterance**.” EX1002, ¶231.

Gold discloses “**receiving**” an utterance “**to be associated with the dedication**,” as discussed for limitation [1.b(vii)] of Ground 1. *Id.*, ¶232.

A POSITA would have found it obvious for Kennewick’s system to receive Gold’s dedication voice message. *Id.*, ¶233. In the combination, the user provides, via Kennewick’s speech interface, a “**first utterance**” that the system uses to “**identify...content to dedicate to a recipient**,” as discussed for limitation [1.b(v)]. *Id.*, ¶233. It would have been obvious for the system to receive a “**second utterance to be associated with the dedication**” in view of Weider’s speech annotations (utterances) for digital media objects and Gold’s disclosure of receiving a dedication voice message from a sender. *Id.*, ¶233. As discussed above for Ground 1, Weider discloses a system that enables users to annotate a digital media object by voice. EX1004, [0120], [0127], claims 19, 23. Weider does not limit what a user may say in these speech annotations. EX1004, [0120]; EX1002, ¶233. One example of a speech annotation is described in Gold—a dedication voice message. EX1002,

¶233. It would have been obvious to a POSITA to try Gold’s dedication message as Weider’s speech annotation because “song dedications can be an effective way to convey and share complex emotions and memories.” EX1005, [0006]; EX1002,

¶233. In the combination, the “*second utterance*” is Weider’s speech annotation, and specifically Gold’s dedication voice message. EX1002, ¶233. The combination furthers Kennewick’s objective to create “a complete natural language speech-based query and response environment.” EX1008, [0006]; EX1002, ¶233.

During prosecution, the Examiner rejected limitation [1.b(vii)] based on Gold, and the Applicant did not dispute the Examiner’s rationale. EX1003, 191, 145-65. EX1002, ¶234.

[1.b(viii)]

A POSITA would have found it obvious for Kennewick’s speech recognition engine to perform the same “processing” discussed in reference to limitation [1.b(ii)] for the second utterance to “*determine...one or more words or phrases*” of the dedication message because Kennewick performs speech recognition processing on “each user utterance.” EX1008, [0028]; EX1002, ¶235.

Weider also discloses “*determin[ing], based on a processing of the second utterance by the speech recognition engine, one or more words or phrases of the*

second utterance,” as discussed for limitation [1.b(viii)] of Ground 1. EX1002, ¶236.

During prosecution, the Examiner rejected limitation [1.b(viii)] based on Kennewick, and the Applicant did not dispute the Examiner’s rationale. EX1003, 194, 145-65. EX1002, ¶237.

[1.b(ix)]

Weider discloses storing words or phrases of a speech annotation (utterance) as “*textual annotations within metadata*” of an object (content), as discussed for limitation [1.b(ix)] of Ground 1. EX1004, [0120], [0127], [0123] (“the textual annotations and/or textual descriptions that are associated with the objects may be stored as metadata”); EX1002, ¶238. And as discussed above, the ’025 patent confirms that Weider’s disclosure meets this limitation. EX1001, 29:56-64; EX1002, ¶238.

As discussed for limitation [1.b(vii)], Kennewick in combination with Gold and Weider renders obvious “*receiv[ing] a second utterance to be associated with the dedication*” via Weider’s speech annotation in the form of Gold’s dedication message. EX1002, ¶239. A POSITA would have found it obvious to transcribe this utterance and store the words or phrases “*as textual annotations within metadata of the content*” in view of the combined teachings of the references. *Id.*, ¶239. A

POSITA would have been motivated to make this combination for the reasons described above for limitation [1.b(vii)] and because storing the second utterance as metadata (per Weider) would have provided an efficient way of conveying Gold's dedication message to the recipient together with the content in a single message instead of multiple messages that would result in consumption of additional network resources. *Id.*, ¶239.

[1.b(x)]

Gold discloses “*send[ing] information to enable the recipient to access the content and the second utterance*,” as discussed for limitation [1.b(x)] of Ground 1. EX1002, ¶240. In the combination, the “*one or more words or phrases of the second utterance*” are “*provide[d]...as textual annotations within metadata of the content*” as discussed above. *Id.*, ¶241. A POSITA would have found it obvious for the system to include the metadata within the content or otherwise send it at the same time, enabling the recipient to access the song and the dedication message. EX1004, [0123], claim 28; EX1002, ¶241.

A POSITA would have found it obvious for the combined Kennewick-Gold-Weider system to inform the recipient of the dedication and to “*enable the recipient to access the content and the second utterance*” because that is the purpose of the dedication. EX1005, [0006] (“song dedications can be an effective way to convey

and share complex emotions and memories”); EX1002, ¶242. In the combined system, a user provides recipient contact information using Kennewick’s speech interface; the system uses the information to send the dedication to the recipient. *Id.*, ¶242. This results in a combination of prior art elements according to known methods (Kennewick collecting user input via the speech interface and Gold prompting a user to provide recipient contact information) to yield predictable results (using voice input to collect recipient contact information). *Id.*, ¶242.

During prosecution, the Examiner rejected limitation [1.b(x)] based on Gold, and the Applicant did not dispute the Examiner’s rationale. EX1003, 191, 145-65; EX1002, ¶243.

B. Claim 3

Claim 3 is substantively identical to limitation [1.b(ix)] and is obvious for the same reasons. EX1002, ¶244.

C. Claim 6

[6.a]

Kennewick in combination with Gold and Weider renders this limitation obvious for the same reasons discussed for limitation [6.a] of Ground 1. *Id.*, ¶245.

During prosecution, the Examiner rejected limitation [6.a] based on Gold, and the Applicant did not dispute the Examiner’s rationale. EX1003, 192, 145-65; EX1002, ¶246.

[6.b]

Kennewick in combination with Gold and Weider renders this limitation obvious for the same reasons discussed for limitation [6.b] of Ground 1. EX1002, ¶247.

During prosecution, the Examiner rejected limitation [6.b] based on Gold, and the Applicant did not dispute the Examiner's rationale. EX1003, 192, 145-65; EX1002, ¶248.

D. Claim 7

Kennewick in combination with Gold and Weider renders claim 7 obvious for the same reasons discussed in Ground 1. EX1002, ¶249.

During prosecution, the Examiner rejected claim 7 based on Gold, and the Applicant did not dispute the Examiner's rationale. EX1003, 192, 145-65; EX1002, ¶250.

E. Claim 8

As discussed for preamble [1.pre] and limitations [1.a]-[1.b], Kennewick in combination with Gold and Weider renders obvious “[a] *system for providing a natural language content dedication service*” that comprises “*one or more processors*” and “*one or more non-transitory computer readable mediums storing executable instructions that when executed by the one or more processors cause the one or more processors to*” perform programmed operations. EX1002, ¶251.

The Kennewick-Gold-Weider system performs “*a method for providing a natural language content dedication service*” for similar reasons. *Id.*, ¶252. Kennewick discloses “[m]obile systems and methods” that use a “complete speech-based information query, retrieval, presentation and command environment,” and Gold describes a “method of sending a song dedication from a sender to a recipient.” EX1008, [0011], Abstract; EX1005, [0007], claim 1. A POSITA would have understood that the systems described for claim 1 perform “*a method for providing a natural language content dedication service.*” EX1002, ¶252. The remaining limitations of claim 8 are substantively identical to those of claim 1. *Id.* Kennewick in combination with Gold and Weider therefore renders claim 1 obvious. *Id.*

F. Claim 10

Claim 10 is substantively identical to claim 3 and is obvious for the same reasons. *Id.*, ¶253.

G. Claims 13-14

Claims 13-14 are substantively identical to claims 6-7, respectively, and are obvious for the same reasons. EX1002, ¶¶254-255.

H. Claim 19

Kennewick in combination with Gold and Weider renders claim 19 obvious for the same reasons discussed above in Ground 1. *Id.*, ¶256.

During prosecution, the Examiner rejected claim 19 based on Gold, and the Applicant did not dispute the Examiner’s rationale. EX1003, 192, 145-65; EX1002, ¶257.

XI. GROUND 7: KENNEWICK, GOLD, WEIDER, AND MARTINEZ

A. Claim 2

As discussed for limitation [1.b(ix)], Weider discloses “*provid[ing] the one or more words or phrases of the second utterance as textual annotations within metadata of the content,*” and as discussed for claim 2 of Ground 2, Martinez discloses “*provid[ing] an image as one or more tags within [the] metadata of the content.*” EX1002, ¶258.

A POSITA would have found it obvious to modify the Kennewick-Gold-Weider system to include Martinez’s image data, e.g., by providing album art with a dedicated song to allow the recipient to identify the song, artist, and/or album. EX1006, [0038], [0041]; EX1002, ¶259. Providing the image as a “*tag[] within metadata of the content*” would have provided an efficient way of conveying the image to the recipient with the content, e.g., by keeping the image and content packaged together, improving playback and display consistency, and simplifying the system architecture. *Id.* As discussed above in Ground 2, this combines prior art elements—Weider’s disclosure that metadata may include different types of data and

Martinez’s disclosure of image tags—according to known methods to yield the predictable result of the metadata including Martinez’s image tags. *Id.*, ¶260.

B. Claim 9

Claim 9 is substantively identical to claim 2 and is obvious for the same reasons. *Id.*, ¶261.

C. Claim 17

As discussed for claim 2, Kennewick in combination with Gold, Weider and Martinez renders obvious “*provid[ing] [data] as one or more tags within metadata of the content.*” *Id.*, ¶262. And, as discussed for claim 17 of Ground 2, Martinez discloses that the data includes “*an electronic link associated with the content.*” *Id.*

A POSITA would have found it obvious to modify the Kennewick-Gold-Weider system to “*provide an electronic link associated with the content as one or more tags within metadata of the content*” as disclosed by Martinez. EX1002, ¶263. Where the metadata includes an image (e.g., album art), providing a pointer or link to the image within the metadata would have reduced the metadata file size and enabled faster load and transfer times than if the metadata contained the image itself. *Id.* A POSITA would have been motivated to make this combination for the reasons discussed above for claim 2. *Id.*

D. Claim 18

As discussed for claim 2, Kennewick in combination with Weider, Gold, and Martinez renders obvious “*provid[ing] [data] as one or more tags within metadata of the content.*” EX1002, ¶264. And, as discussed for claim 18 of Ground 2, Martinez discloses that the data includes a “*voice tag.*” *Id.* A POSITA would have been motivated to make this combination for the reasons discussed above for claim 2. *Id.*

XII. GROUND 8: KENNEWICK, GOLD, WEIDER, AND GINTER

A. Claim 4

As discussed for claim 4 of Ground 3, Ginter discloses “*purchas[ing] the content from a content provider.*” *Id.*, ¶265.

It would have been obvious to modify the Kennewick-Gold-Weider system to incorporate Ginter’s content purchasing for the reasons discussed above, e.g., by populating Gold’s song database using purchased songs. EX1002, ¶266. The combined system purchases content from content providers (e.g., artists or record companies), and functions as a distributor by sending (distributing) information “*to enable the recipient to access the content,*” as discussed for limitation [1.b(x)]. *Id.*, ¶¶266-267. The use of Ginter’s method of purchasing content to build Gold’s song database combines prior art elements according to known methods—Gold’s

distribution of database content to users (dedication recipients) and Ginter’s method of acquiring content via purchase from content creators—to yield predictable results—a song dedication system populated with content purchased from content creators. *Id.*, ¶267. The result of the combination is predictable because conventional business relationships include sales transactions, and a POSITA would have reasonably expected the combination to be successful for the same reasons. *Id.* A POSITA would have been motivated to make this combination because, for example, Ginter discloses storing purchased content in a content repository for distribution to users. EX1009, 309: 25-38, 311:44-51, 314:1-2, 315:59-316:15, FIG. 78; EX1002, ¶266.

B. Claim 11

Claim 11 is substantively identical to claim 4 and is obvious for the same reasons. EX1002, ¶268.

XIII. GROUND 9: KENNEWICK, GOLD, WEIDER, GINTER, AND WANG

A. Claim 5:

[5.a]

Kennewick uses an agent-based architecture to provide natural language services. EX1008, [0017] (“[D]omain specific behavior and information are organized into agents” that “receive, process and respond to user questions, queries and commands.”); EX1002, ¶269. Kennewick further discloses that the system

“allow[s] the sale of agents” to users on a “subscription basis.” EX1008, [0019]; EX1002, ¶269. Gold describes providing a specific service—sending and dedicating a song to a recipient. EX1002, ¶269. A POSITA would have found it obvious to implement Gold’s functionality within Kennewick’s system, e.g., by using Kennewick’s domain agent to provide Gold’s content dedication service. *Id.* In the combined system, the domain agents performing the service are provided on a subscription basis (a “***paid subscription purchase option***”) as taught by Kennewick. *Id.*

Wang also discloses the claimed purchase options, as discussed for limitation [5.a] of Ground 4. *Id.*, ¶270.

It would have been obvious to modify the Kennewick-Gold-Weider-Ginter system to incorporate Wang’s purchase options for the same reasons discussed above in Ground 4, e.g., to allow the dedication recipient to download the dedicated song where the purchase option is “***buy-to-own***” or to allow the fee charged to Gold’s user to take the form of a “***paid subscription***” for use of the content dedication service. EX1005, [0008]-[0009]; EX1002, ¶271. Moreover, it would have been obvious for the combined system to implement these purchase options in view of Ginter’s disclosure of purchasing the content from a content provider, as discussed in Ground 4. EX1002, ¶272. The result of the combination is predictable

because “*buy-to-own*” and “*paid subscription*” purchase models for content and use of services were well known and because the purchase options would have enabled the operator of the combined system to generate profit for providing the service. To charge users (EX1005, [0009]), a POSITA would have looked to known billing strategies for content delivery, as disclosed by Wang. EX1016, [0010] (“[T]o obtain endorsement [by the music industry], companies must charge users for access to songs.”), [0051] (A user “engage[s] in an on-line commerce transaction in which the user pays for access rights to [a] particular media item.”); EX1002, ¶¶272-273. This combination uses a known technique (Weider’s digital download or subscription-based monetization model) to improve a similar product (a digital content system) in the same way (enabling revenue generation). *Id.*, ¶273.

During prosecution, the Examiner rejected limitation [5.a] based on Kennewick, and the Applicant did not dispute the Examiner’s rationale. EX1003, 195, 86; EX1002, ¶274.

[5.b]

Kennewick in combination with Gold, Weider, Ginter, and Wang renders this limitation obvious for the same reasons discussed for limitation [5.b] of Ground 4. EX1002, ¶275.

During prosecution, the Examiner rejected limitation [5.b] based on Ginter, and the Applicant did not dispute the Examiner's rationale. EX1003, 195, 86; EX1002, ¶276.

B. Claim 12

Claim 12 is substantively identical to claim 5 and is obvious for the same reasons. EX1002, ¶277.

XIV. GROUND 10: KENNEWICK, GOLD, WEIDER, AND WANG

A. Claim 15

[15.a]

Kennewick in combination with Gold, Weider, and Wang renders this limitation obvious for the same reasons discussed for limitation [15.a] of Ground 5. *Id.*, ¶278.

[15.b]

As discussed for limitation [15.a], Gold's sender "*interact[s] with a media item*" (song) by playing the media item on the sender device. EX1005, [0007]; EX1002, ¶280. And as discussed for limitations [1.b(ii)]-[1.b(iv)], Kennewick uses NLP to interpret user utterances, including the first utterance. EX1008, [0011]-[0012]; EX1002, ¶¶279-280. In the combined system, the user speaks the first utterance to select a song, interacts with the song by initiating playback, and says

“dedicate this song.” EX1002, ¶280. The system “*identifies]...the media item as the content*” based on Kennewick’s “*natural language processing*” of the first utterance and Gold’s “*interaction of the user with the media item.*” *Id.*

Additionally, as discussed for limitation [15.a], Wang’s signal identification service “*determine[s] that a user is interacting with a media item*” by identifying a song being played. EX1007, [0012], [0020]; EX1002, ¶281. In the combined system, the user interacts with the system by voice, provides an audio sample that Wang identifies as the song, and says “dedicate this song.” EX1002, ¶281. The system “*identifies]...the media item as the content*” using Kennewick’s “*natural language processing*” techniques, including processing the first utterance, and Wang’s “*interaction of the user with the media item.*” *Id.*

As discussed above in Ground 5, a POSITA would have been motivated to make this combination to extend Wang’s “impulse purchase phenomenon” by allowing a user to dedicate the identified song to another user. EX1002, ¶282. Wang discloses that a user can provide input to the interactive voice response system using voice commands (EX1007, [0037]); it would have been obvious to use Kennewick’s NLP techniques to interpret those commands. EX1002, ¶282. Wang contemplates using such techniques, noting that “voice recognition methodologies are employed

to translate the user’s voice responses into usable system inputs.” EX1007, [0084]; EX1002, ¶282.

Moreover, Wang’s user can “send a recommendation for the identified song...or a clip of the song to the friend’s mobile telephone.” EX1007, [0042]-[0043]. It would have been obvious that the recommendation includes a voice message dedication, as in Gold. EX1002, ¶283. This is a simple substitution of one known element (Gold’s search-based content identification techniques) for another (Wang’s signal processing-based content identification techniques) to obtain predictable results (identifying a song to dedicate to a recipient). *Id.*

B. Claim 16

[16.a]

Kennewick in combination with Gold, Weider, and Wang renders this limitation obvious for the same reasons discussed for limitation [16.a] of Ground 5. EX1002, ¶284.

[16.b]

As discussed above, Wang’s user “*provide[s] [an] utterance during the playing of the media item*” when the user speaks a “voice command[]” “while listening to the music.” EX1007, [0002], [0059]; EX1002, ¶285.

In the combined system, the user “*provide[s] the first utterance*” while the song plays, e.g., contemporaneously with the user providing the audio sample to the server, as taught by Wang. EX1002, ¶285. Allowing the user to provide the first utterance “*during the playing of the media item by the user*” was an obvious extension of Wang’s “impulse purchase phenomenon” by enabling the user to share the identified song. EX1007, [0043]; EX1002, ¶285. The system “*determines that the user provided the first utterance*” using Kennewick’s natural language processing techniques, as discussed for limitations [1.b(ii)]-[1.b(iv)]; EX1002, ¶285. This combination involves use of a known technique (Wang receiving and processing voice commands while music is playing) to improve a similar device (the combined content dedication system) in the same way (supporting impulse-based user action). EX1002, ¶285.

[16.c]

Kennewick in combination with Gold, Weider, and Wang renders this limitation obvious for the reasons provided for limitation [15.b]. *Id.*, ¶286. Additionally, the combined system “*identiffies]...based on the...determination that the user provided the first utterance during the playing of the media item, the media item as the content to dedicate to the recipient.*” Wang identifies the “voice commands,” including an instruction to “send a recommendation for the identified

song,” made by the user while the music is playing. EX1007, [0002], [0059], [0043]; EX1002, ¶286. In the combined system, these “voice commands” include the “***first utterance***” as explained in limitation [16.b]. The content is then dedicated based on this “***first utterance***” made in conjunction with the “***second utterance***” while the media item is playing. EX1002, ¶286.

XV. CONCLUSION

For these reasons, Petitioner requests *inter partes* review and cancellation of the challenged claims. *Id.*, ¶¶1-287.

XVI. STANDING

Petitioner certifies that Petitioner is not barred or estopped from requesting this *inter partes* review and the '025 patent is eligible for IPR.

XVII.MANDATORY NOTICES AND FEES

A. Real Party-in-Interest

Petitioner is the real party-in-interest. No other party directed, controlled, or funded this IPR proceeding.

B. Related Matters

Patent Owner asserts the '025 patent against Petitioner in *VB Assets, LLC v. Amazon.com Services, LLC*, No. 1:24-cv-00839 (District of Delaware, July 18, 2024) (the “parallel litigation”).

Petitioner is aware of the following additional related matter involving the '025 patent:

Case Caption	Forum	Patents
<i>VB Assets LLC v. SoundHound AI Inc.</i> Case No. 1:24-cv-01279	DDE	7,818,176 10,755,699 11,087,385 11,222,626 10,297,249 9,269,097 9,502,025 8,886,536 8,073,681

C. Lead and Backup Counsel

Pursuant to 37 C.F.R. §42.8(b)(3) and 42.10(a), Petitioner designates J. David Hadden, Reg. No. 40,629 as lead counsel and Saina Shamilov, Reg. No. 48,266, Brian M. Hoffman, Reg. No. 39,713, Dargaye Churnet, Reg. No. 71,288, and Emily Bullis (*pro hac vice* to be filed) as back-up counsel, each of Fenwick & West LLP.

D. Service Information

Petitioner consents to service by electronic mail at:

VBAssets-IPR@fenwick.com.

Petitioner's counsel may also be served by mail or hand delivery at Fenwick & West LLP, 801 California St, Mountain View, CA 94041. Petitioner's counsel may be reached by telephone at (650) 988-8500.

E. Fees

The Office is authorized to charge fees for this Petition to Deposit Account 19-2555.

Dated: July 31, 2025

FENWICK & WEST LLP

/J. David Hadden/
J. David Hadden
Reg. No. 40,629

Attorneys for Petitioner
Amazon.com Services LLC

CERTIFICATION OF WORD COUNT

The undersigned certifies pursuant to 37 C.F.R. §42.24 that the foregoing Petition for *Inter Partes* Review, excluding any table of contents, mandatory notices under 37 C.F.R. § 42.8, certificates of service or word count, or appendix of exhibits, contains 13,953 words according to the word-processing program used to prepare this document (Microsoft Word).

Dated: July 31, 2025

FENWICK & WEST LLP

/J. David Hadden/

J. David Hadden

Reg. No. 40,629

Attorneys for Petitioner
Amazon.com Services LLC

**CERTIFICATE OF SERVICE ON PATENT OWNER
UNDER 37 C.F.R. § 42.105**

I hereby certify, pursuant to 37 C.F.R. §§ 42.6(e) and 42.105, that a complete copy of this Petition for *Inter Partes* Review including all exhibits are being served via Federal Express on July 31, 2025, upon Patent Owner by serving the correspondence address of record with the USPTO as follows:

James Gatto
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Dated: July 31, 2025

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