

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TIKTOK INC.,
Petitioner,

v.

NTECH PROPERTIES, INC.,
Patent Owner.

Case No. IPR2024-01341

U.S. Patent No. 9,215,261

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 9,215,261**

TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION	1
II. MANDATORY NOTICES AND FEES	2
A. Real Party-In-Interest	2
B. Related Matters.....	2
C. Counsel and Service Information	3
D. Payment of Fees	3
E. Requirements for Inter Partes Review	3
III. GROUNDS	3
IV. BACKGROUND	4
A. State of the Art	4
B. Asserted Prior Art.....	6
1. Whitehead (EX1003)	6
2. Cristofalo (EX1004).....	7
3. Marcus '904 (EX1005)	9
4. Marcus '156 (EX1008)	10
C. '261 patent	10
1. Priority Date	10
2. Prosecution History (EX1018).....	11
3. '261 patent (EX1001)	11
V. PERSON OF ORDINARY SKILL	13
VI. CLAIM CONSTRUCTION	13
VII. GROUNDS	13
A. Ground 1: Whitehead	13
1. Claim 1	13
2. Claim 2:.....	31
3. Claim 3: <i>The method according to claim 2, wherein the parameters and instructions are embodied in one or more</i>	

	<i>templates, each template comprises a plurality of rules associated with said tags of said tagged media elements, and each template is associated with a selected library or a selected media feed.</i>	33
4.	<i>Claim 4: The method according to claim 3, wherein the template is processed according to at least one rule for selection and sequencing of tagged media elements according to collected user information.</i>	35
5.	<i>Claim 5: The method according to claim 1, wherein a first media feed responsive to the selection of one of the media feeds is furnished during a first time period and a second media feed comprising the individual customized media programming is furnished during a second time period.</i>	36
6.	<i>Claim 6: The method according to claim 1, wherein the user information comprises a user profile.</i>	37
7.	<i>Claim 7: The method according to claim 1, wherein the user information comprises user preference data.</i>	37
8.	<i>Claim 8: The method according to claim 1, wherein the media programming comprises multiple streams of media elements.</i>	37
9.	<i>Claim 9: The method according to claim 8, wherein at least a portion of the multiple streams are concatenated according to user information.</i>	39
10.	<i>Claim 10: The method according to claim 1, wherein the media elements comprise transitions, and the media elements are dynamically positioned, temporally or spatially, within the context of the media programming.</i>	39
B.	<i>Ground 2: Whitehead and Marcus '904</i>	41
1.	<i>Motivation to Combine & Reasonable Expectation of Success</i>	41
2.	<i>Claim 1[a]: delivering by an aggregator, to a client device associated with a user, a selectable menu of media feeds available from at least one publisher</i>	43
3.	<i>Claim 1[f]: initiating, by the aggregator, for display at the client device, individual customized media programming comprising media elements selected from one or more</i>	

	<i>libraries in communication with said publisher, wherein the selected media elements (i) correspond to at least one selected media feed and are responsive to said user information, and (ii) are ordered and concatenated at least in part according to each selected media feed and said user information.</i>	44
4.	<i>Claim 2[b]: selecting media elements comprising said individual customized media programming according to parameters and instructions for assembling media programming based on the collected user information.</i>	44
5.	<i>Claim 4: The method according to claim 3, wherein the template is processed according to collected user information and at least one algorithm for selection and sequencing of media elements, assembling the media elements, and providing a feed to the user.</i>	44
6.	<i>Claim 3: The method according to claim 2, wherein the parameters and instructions comprise a template.</i>	44
7.	<i>Claim 8: The method according to claim 1, wherein the media programming comprises multiple streams of media elements.</i>	45
8.	<i>Claim 10: The method according to claim 1, wherein the media elements comprise transitions, and the media elements are dynamically positioned, temporally or spatially, within the context of the media programming.</i>	45
C.	<i>Ground 3: Cristofalo and Marcus '904</i>	46
1.	<i>Motivation to Combine & Reasonable Expectation of Success</i>	46
2.	<i>Claim 1</i>	48
3.	<i>Claim 2:</i>	60
4.	<i>Claim 3: The method according to claim 2, wherein the parameters and instructions are embodied in one or more templates, each template comprises a plurality of rules associated with said tags of said tagged media elements, and each template is associated with a selected library or a selected media feed.</i>	61

5.	Claim 4: <i>The method according to claim 3, wherein the template is processed according to at least one rule for selection and sequencing of tagged media elements according to collected user information.</i>	62
6.	Claim 5: <i>The method according to claim 1, wherein a first feed responsive to the selection of one of the feeds is furnished during a first time period and a second feed comprising the individual customized media programming is furnished during a second time period.</i>	63
7.	Claim 6: <i>The method according to claim 1, wherein the user information comprises a user profile.</i>	63
8.	Claim 7: <i>The method according to claim 1, wherein the user information comprises user preference data.</i>	64
9.	Claim 8: <i>The method according to claim 1, wherein the media programming comprises multiple streams of media elements.</i>	64
10.	Claim 9: <i>The method according to claim 8, wherein portions of the multiple streams are concatenated according to user information.</i>	64
11.	Claim 10: <i>The method according to claim 1, wherein the media elements comprise transitions, and the media elements are dynamically positioned, temporally or spatially, within the context of the media programming.</i>	65
D.	Secondary Considerations	66
VIII.	NO BASIS FOR DISCRETIONARY DENIAL	66
A.	35 U.S.C. § 325(d) Supports Institution	66
B.	<i>Fintiv</i> Supports Institution	67
1.	Overlap Between Issues	67
2.	Likelihood of a Stay	67
3.	Proximity of the Court’s Trial Date to a FWD	68
4.	Investment in the Parallel Proceeding	68
5.	Whether the Petitioner and the Defendant in the Parallel Proceeding are the Same Party	69

6.	Other Circumstances, that Impact the Board’s Exercise of Discretion, Including the Merits	69
IX.	CONCLUSION.....	69

EXHIBIT LIST

Ex.	Description
EX1001	U.S. Patent No. 9,215,261 (“’261 patent”)
EX1002	Declaration of Kevin Almeroth, Ph.D.
EX1003	U.S. Pat. Pub. No. 2008/0141307 (“Whitehead”)
EX1004	U.S. Pat. Pub. No. 2002/0152117 (“Cristofalo”)
EX1005	U.S. Pat. Pub. No. 2006/0015904 (“Marcus ’904”)
EX1006	U.S. Patent No. 6,177,931
EX1007	Int’l Publ. No. WO 00/40021
EX1008	U.S. Pat. No. 6,032,156 (“Marcus ’156”)
EX1009	Provisional Application for U.S. Pat. No. 9,215,261 (U.S. Prov. Appl. No. 60/934,456)
EX1010	Wilkerson, “ACTV hopes to steal print's thunder” (Dec. 8, 2000)
EX1011	Amended Complaint in <i>NTECH Properties, Inc. v. ByteDance Ltd. et al.</i> , No. 2:24-cv-00130 (E.D. Tex.)
EX1012	B. Hammersley, “Audible revolution” (Feb. 11, 2004)
EX1013	U.S. Pat. No. 6,388,714
EX1014	U.S. Pat. No. 7,467,398
EX1015	Verizon, “Verizon Unlocks Full Potential of Fiber-Based FiOS Internet and Video Services With Advanced 100-Mbps Broadband Home Router” (June 28, 2006)
EX1016	Prosecution History for U.S. Pat. No. 8,145,704
EX1017	Prosecution History for U.S. Pat. No. 8,886,753

Petition for *Inter Partes* Review
U.S. Patent No. 9,215,261

EX1018	Prosecution History for U.S. Pat. No. 9,215,261
EX1019	Prosecution History for U.S. Pat. No. 9,923,947
EX1020	List of Recent Expert Witness Engagements of Dr. Kevin Almeroth
EX1021	Curriculum Vitae of Dr. Kevin Almeroth
EX1022	Americans' Use of Mobile Technology and Home Broadband, <i>Pew Research Center</i> , January 31, 2024

LIST OF CHALLENGED CLAIMS

Claim	Limitation
1[pre]	1. A method of generating customized media programming, comprising the steps of
1[a]	delivering by an aggregator, to a client device associated with a user, a selectable menu of media feeds available from at least one publisher,
1[b]	wherein each said media feed comprises a plurality of media elements selected from audio media elements, visual media elements, and combinations thereof, and each said media element is tagged in at least one library in communication with at least one publisher;
1[c]	receiving by the aggregator from the client device a selection identifying at least one of said media feeds;
1[d]	providing by the aggregator, to said publisher, an identification of each selected media feed;
1[e]	providing by the aggregator, to said publisher, client information comprising information about the user and information about the associated client device; and
1[f]	initiating, by the aggregator, for display at the client device, individual customized media programming comprising media elements selected from one or more libraries in communication with said publisher, wherein the selected media elements (i) correspond to at least one selected media feed and are responsive to said user information, and (ii) are ordered and concatenated at least in part according to each selected media feed and said user information.
2	The method according to claim 1, further comprising the steps of collecting by the aggregator, from the client device, user information comprising information about an identified user, and selecting media elements comprising said individual customized media programming according to parameters and instructions for assembling media programming based on the collected user information.

Claim	Limitation
3	The method according to claim 2, wherein the parameters and instructions are embodied in one or more templates, each template comprises a plurality of rules associated with said tags of said tagged media elements, and each template is associated with a selected library or a selected media feed.
4	The method according to claim 3, wherein the template is processed according to at least one rule for selection and sequencing of tagged media elements according to collected user information.
5	The method according to claim 1, wherein a first media feed responsive to the selection of one of the media feeds is furnished during a first time period and a second media feed comprising the individual customized media programming is furnished during a second time period.
6	The method according to claim 1, wherein the user information comprises a user profile.
7	The method according to claim 1, wherein the user information comprises user preference data.
8	The method according to claim 1, wherein the media programming comprises multiple streams of media elements.
9	The method according to claim 8, wherein at least a portion of the multiple streams are concatenated according to user information.
10	The method according to claim 1, wherein the media elements comprise transitions, and the media elements are dynamically positioned, temporally or spatially, within the context of the media programming.

I. INTRODUCTION

The '261 patent is directed to generating “media programming” based on a user “selection” and “user data.” This was far from a new concept in June 2007, when PO filed the provisional application that '261 patent claims priority from. Television providers have been customizing programming for users in specific geographic areas since the 1970s, and techniques for generating custom “virtual channels” based on an individual “user profile” were known at least by the 1990s. This trend accelerated in the early 2000s as computer technology reached speeds sufficient for streaming video over the Internet to individual users. By June 2007, the technological landscape was comparable to today, with Netflix streaming, YouTube, and Amazon Prime already available to consumers.

The only alleged point of novelty in the '261 patent was to arbitrarily divide the processing involved in generating such “media programming” between an “*aggregator*” (e.g., a “web server” or an “electronic program guide”) that provides a UI and a “*publisher*” (e.g., another “web server” or a “cable provider”) that transmits custom “media programming.” The '261 patent does not, however, disclose any technical innovation for implementing this basic division of labor.

Moreover, even the '261 patent’s “*aggregator*”/“*publisher*” structure is not new. For example, Whitehead (filed by Verizon) discloses a “content processing device” and “mixing server” that work together to generate “one or more custom

media channels” (“*media programming*”). Cristofalo (filed by ACTV) similarly discloses a “transmitting system” and “receiving system.” For **Ground 1**, Whitehead renders obvious all claims of the ’261 patent. For **Ground 2**, Whitehead is combined with Marcus ’904, which has the same named inventor and assignee as the ’261 patent and discloses many ’261 patent claim limitations verbatim. For **Ground 3**, the combination of Cristofalo and Marcus ’904 also renders obvious the ’261 patent claims.

Accordingly, Petitioner respectfully requests that the Board institute this IPR and find all claims of the ’261 patent invalid.

II. MANDATORY NOTICES

A. Real Party-In-Interest

The real parties-in-interest for Petitioner are TikTok Inc., Bytedance Ltd., Bytedance Pte. Ltd., and TikTok Pte. Ltd.

B. Related Matters

The ’261 patent was only asserted *NTECH Properties, Inc. v. ByteDance Ltd. et al.*, Case No. 2:24-cv-00130 (E.D. Tex., filed Feb. 23, 2024).

The ’261 patent is in the same family as U.S. Patent Nos. 8,145,704, 8,886,753, and 9,923,947, which have also been asserted in that case. Petitioner is concurrently filing IPR petitions against these family members.

C. Counsel and Service Information

Electronic service may be made on the email addresses identified below and in the accompanying Power of Attorney.

LEAD COUNSEL	BACK-UP COUNSEL
James M. Glass (Reg. No. 46729) jimglass@quinnemanuel.com QUINN EMANUEL URQUHART & SULLIVAN, LLP 51 Madison Avenue, 22 nd Floor New York, NY 10010 Tel: (212) 849-7000	Ognjen Zivojnovic (Reg. No. 69,516) ogizivojnovic@quinnemanuel.com QUINN EMANUEL URQUHART & SULLIVAN, LLP 50 California Street, 22nd Floor San Francisco, California 94111 Tel: (415) 875-6600 Gavin Snyder (<i>pro hac vice</i> to be requested upon grant authorization) gavinsnyder@quinnemanuel.com QUINN EMANUEL URQUHART & SULLIVAN, LLP 1109 First Avenue, Suite 210 Seattle, Washington 98101 Tel: (206) 905-7000

D. Payment of Fees

The Office is authorized to charge the fee required for this Petition (any any additional fees) to Deposit Account No. 50-5708.

E. Requirements for Inter Partes Review

Petitioner certifies that the '261 patent is available for *inter partes* review, that Petitioner is not barred or estopped, and that 35 U.S.C. §§315(a)-(b) is inapplicable.

III. GROUNDS

Ground	Basis	Reference(s)	Claims
1	§103	Whitehead	1-10

2	§103	Whitehead and Marcus '904	1-10
3	§103	Cristofalo and Marcus '904	1-10

IV. BACKGROUND

A. State of the Art

Since the early days of radio and television broadcasting, media providers have sought to understand their audience and cater to their preferences. By the 1970s, television programming became further customizable via the advent of local programming insertion. Cable providers would dedicate slots within their national programming for local affiliates to insert their own programming on a market-by-market level. EX1002 ¶¶ 56-60

Programming became customizable on an individual subscriber level in the early 1990s with the introduction of electronic program guides (EPGs). With EPGs, a user was able to browse a menu of available television programming and tune to a particular program by selecting its program listing. In addition, EPGs could automatically tune to channels based on user profile data, thereby creating custom media programming. For example, U.S. Pat. No. 6,177,931 (filed in 1998, issued Jan. 23, 2001, § 102(b) art) describes an EPG that monitors user interactions to generate viewer profile information, and then uses that information to automatically tune to a particular advertising channel during a commercial break. EX1006 at 28:11-35:36. As another example, U.S. Pat. No. 8,813,122 (filed in 1999, published July 6, 2000, § 102(b) art) describes generating a “virtual channel” of programming

specifically selected based on the user's profile and then automatically tuning to programming according to a defined schedule. EX1007 at 5-6; EX1002 ¶¶ 56-60.

The next step in the evolution of custom media programming was brought by advances in computer technology. By the early 1990s, most components of the modern Internet were in place—including web servers that support HTTP over TCP/IP traffic—and codecs for transmitting video over computer networks (such as MPEG) had also been standardized. Importantly, unlike broadcast technology, TCP/IP permits a web server to receive a request from a specific user and respond to that user's request with individualized custom media programming. EX1002 ¶¶ 56-60.

One limiting factor was that most households in the 1990s did not have sufficient Internet speeds to support video streaming. Standard definition video requires about 0.5 – 1.5 Mbps. In the 1990s, only 56 kbps dial-up was available to most U.S. households with Internet access. This changed with the introduction of broadband Internet connections. In 2000, about 7 million U.S. households had broadband Internet subscriptions. By 2007, that number had grown to more than 71 million. This rendered transmitting video programming over the Internet commercially desirable, leading to a rapid rise in Internet-based media companies. For example, YouTube was founded in 2005, Amazon Prime debuted in 2006, and Netflix launched its streaming service in January 2007. EX1002 ¶¶ 56-60.

B. Asserted Prior Art

With the rise in commercial interest in transmitting media programming over the Internet came a corresponding influx of patent applications on techniques for generating custom media programs based on user selections and user data. EX1002 ¶¶ 56-60.

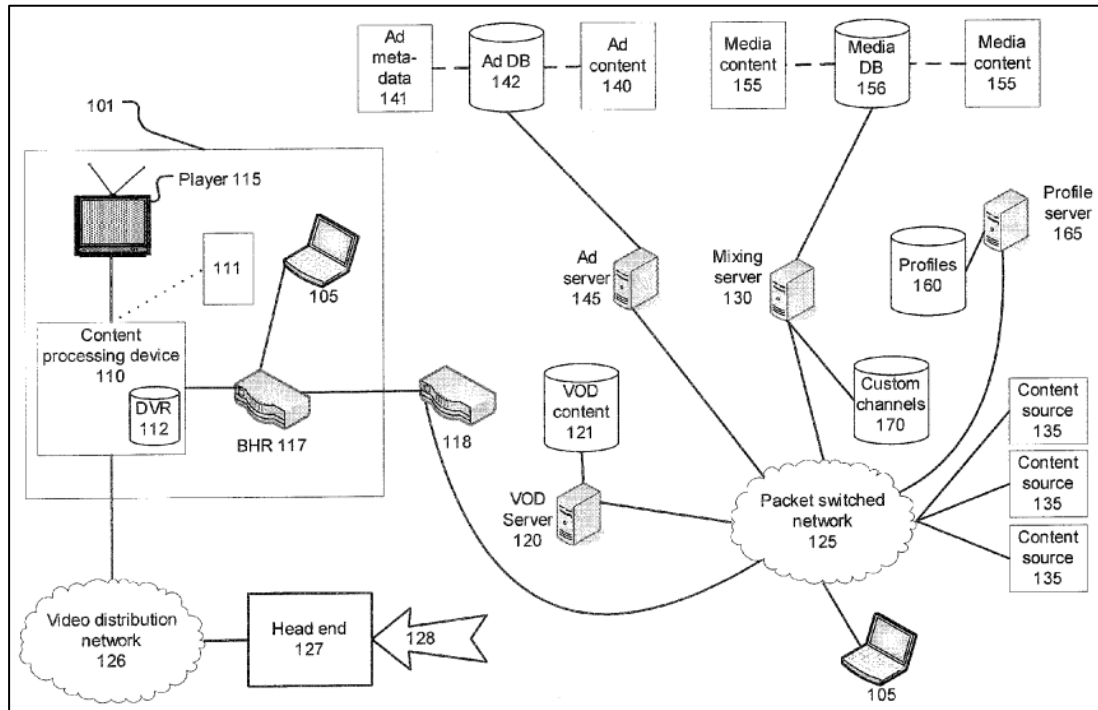
1. Whitehead (EX1003)

In 2005-2006, Verizon expanded its fiber-based broadband Internet and video services, allowing its customers to stream videos at speeds of up to 30 Mbps and introduced its “FiOS TV server.” EX1015. Recognizing the potential of this expansion of broadband Internet and video services, Verizon filed the Whitehead application on Dec. 6, 2006. Whitehead published on June 12, 2008 and is prior art under 35 U.S.C. § 102(e).¹ EX1002 ¶¶ 61-63.

Whitehead describes “creat[ing] a custom media channel based on [a user] profile” and “provid[ing] the custom media channel upon a request from a user,

¹ Whitehead also issued as U.S. Pat. No. 8,555,318 on October 8, 2013. If there is a change in applicable law such that patent application publications no longer qualify as §102(e) art, Petitioner reserves the right to instead rely on the same disclosure found in the Whitehead patent.

wherein the custom media channel includes more than one item of multimedia content.” EX1003 at Abstract. Whitehead’s system is shown in its Figure 1:



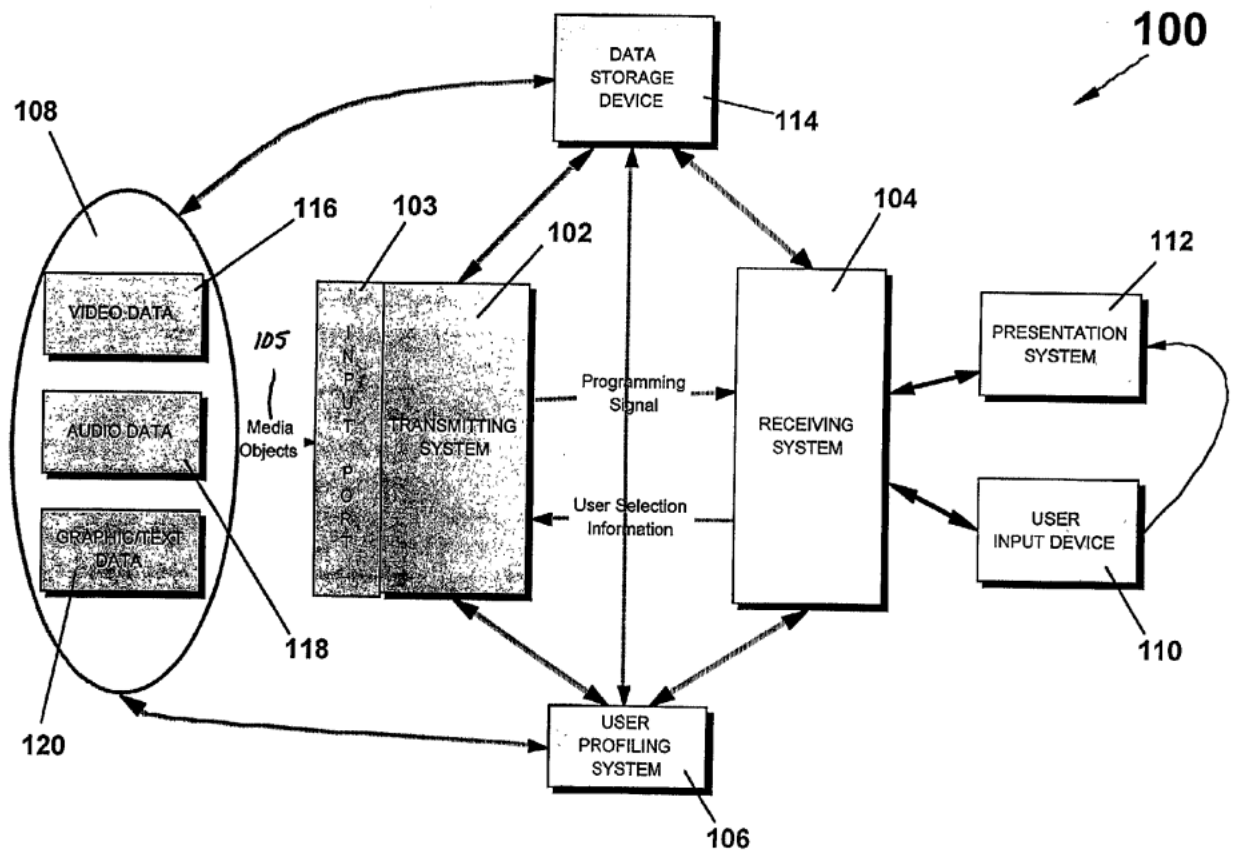
A mixing server 130 creates custom media channel 170 based on a profile 160 for that channel and metadata on multimedia content available from different content sources 135. The mixing server 130 also includes advertisements 140 in custom media channel 170. The custom media channel 170 is then transmitted to content processing device 110 for playback on player 115. EX1002 ¶¶ 56-60.

2. Cristofalo (EX1004)

ACTV developed technology for targeting advertisements to specific users by “trigger[ing] a set-top box to switch to the appropriate commercial.” EX1010. This functionality was deployed in early 2001 in partnership with AT&T. EX1010.

ACTV also filed an application on this technology on April 12, 2001, which was published as U.S. Pat. Apl. Pub. No. 2002/0152117 (“Cristofalo”) on October 17, 2002. Cristofalo is prior art under 35 U.S.C. §102(b). EX1002 ¶¶ 64-66.

Cristofalo describes “[a] system and process for targeting programming (including, but not limited to, advertising) to users by utilizing media objects to provide specific content to a user, or groups of users, based upon profiling information.” EX1004 at Abstract. Cristofalo’s system is shown in its Figure 1:



Cristofalo teaches that media objects can be targeted to specific users at transmitting system 102, receiving system 104, or a combination of the two. EX1004 ¶ 49. For example, transmitting system 102 may modify a commercial for specific

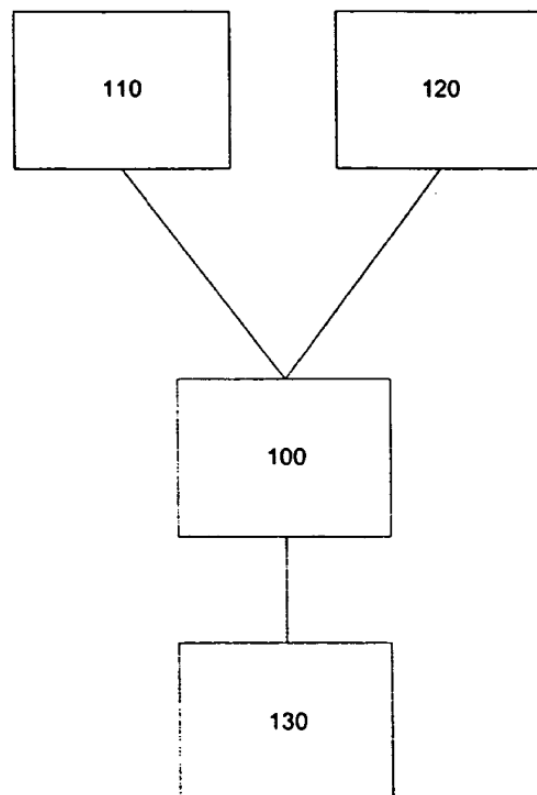
markets or groups of users. EX1004 ¶¶ 35, 47. Or, receiving system 104 may receive multiple, multiplexed media objects and select the appropriate media object for inclusion in the programming. EX1004 ¶ 36; EX1002 ¶¶ 64-66.

3. Marcus '904 (EX1005)

Marcus '904 was published on January 19, 2006. Marcus '904 is prior art under 35 U.S.C. §102(b). Marcus '904 has the same named inventor and assignee as the challenged '261 patent. EX1002 ¶¶ 67-70.

Marcus '904 describes a custom program assembled from content obtained from “a first media source 110 and a second media source 120.” EX1005 ¶ 31.

Marcus '904's system is shown in its Figure 1:



4. Marcus '156 (EX1008)

U.S. Pat. No. 6,032,156 (“Marcus ’156”) is incorporated by reference in both Marcus ’904 and the ’261 patent. Marcus ’156 was issued on February 29, 2000.

Marcus ’156 describes delivering a custom media program to a user. EX1008 at Abstract. The system selects “[m]edia elements” in response to a user request for media programming, and those elements are then assembled into a temporal sequence. EX1008 at Abstract. Marcus ’156 relies on “tags” to implement this process, including “content tags” containing “information identifying the content of the clip” and “control tags” defining how clips are assembled. EX1008 at 3:2-13, 5:3-39. These tags are used in conjunction with a database of “viewer information” to select clips for the media programming and create “customized programming.” EX1008 at 10:9-20. This “customized programming” is then delivered to the user over the Internet as a “concatenated stream.” EX1008 at 3:44-46, 11:1-10; EX1002 ¶¶ 67-70.

C. ’261 patent

1. Priority Date

PO filed the application for the ’261 patent on Mar. 23, 2012, which is a continuation of U.S. Patent Application No. 12/138,925, filed Jun. 13, 2008 and issued as U.S. Pat. No. 8,145,704, which claims priority to U.S. Provisional Patent Application No. 60/934,456, filed Jun. 13, 2007. The “Detailed Description” in this

provisional application consisted of less than 40 paragraphs and a single figure, which eventually became Figure 1 of the '261 patent. EX1009; EX1002 ¶¶ 35-46.

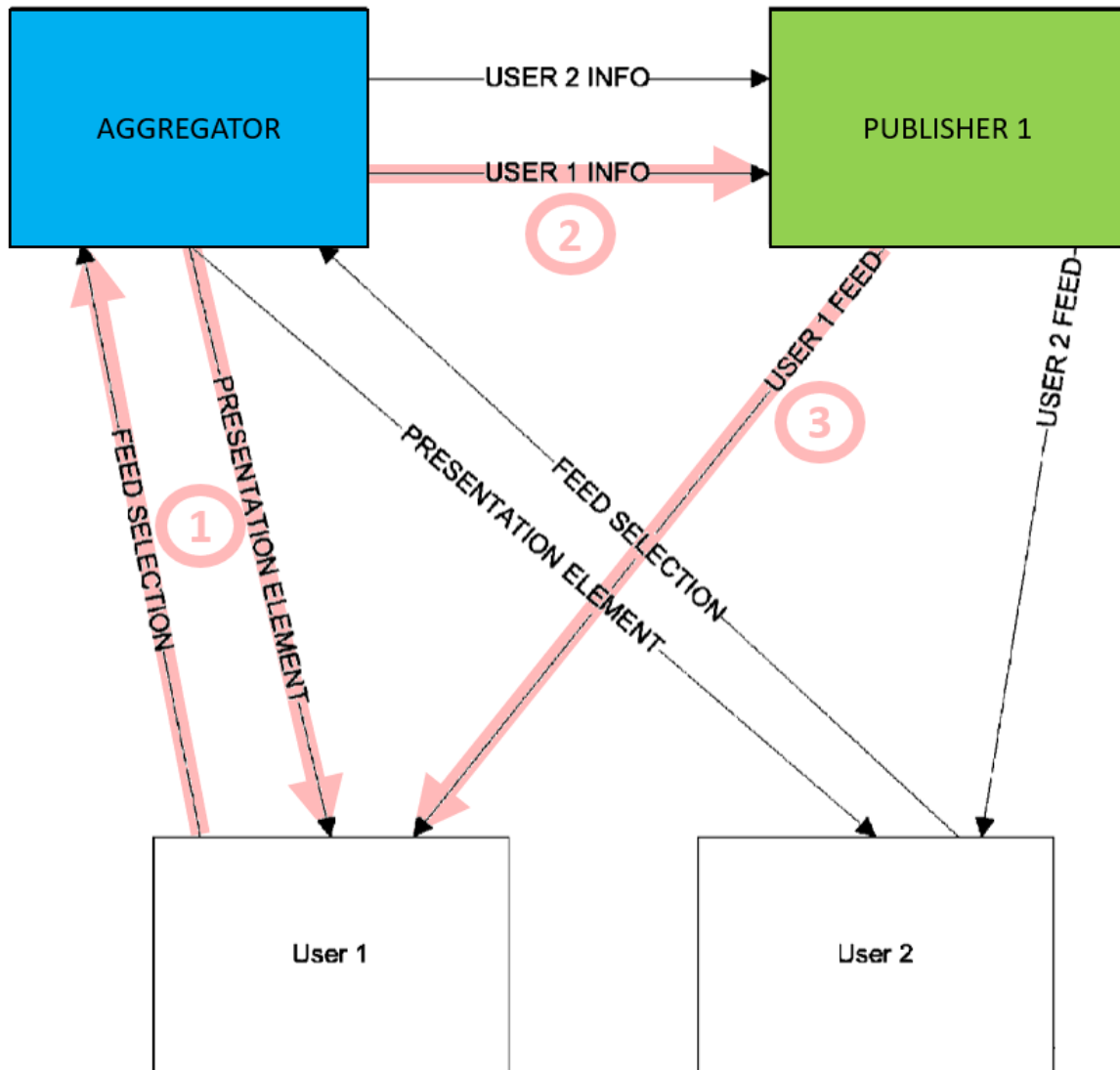
2. Prosecution History (EX1018)

The Examiner allowed the new claims of the '261 patent application in the first action. EX1018 at 71-79; EX1002 ¶¶ 35-46.

3. '261 patent (EX1001)

The '261 patent specification relies on long-existing technologies, such as “the Internet,” “TCP/IP protocol,” and “MPEG-3 format for video.” EX1001 at 4:10-11, 14:23-33. In addition, like the Marcus '904 publication before it, the '261 patent specification relies on Marcus '156 patent for all selecting, ordering, and assembling of media programming. EX1001 at 1:24-29, 5:45-52, 9:23-33, 9:48-52, 10:17-19; EX1002 ¶¶ 35-46.

The '261 patent issued with independent claim 1 and dependent claim 2-10. Claims 1-10 are directed to the concept of generating custom media programming using an “*aggregator*” and a “*publisher*.” These components are shown in the '261 patent's Figure 1:



Claims 1-10 recite three basic steps. **Step 1:** The *aggregator* provides a user interface presenting available media feeds and receives a user selection of one of those media feeds. **Step 2:** The *aggregator* then provides the user selection and user profile information to the *publisher*. **Step 3:** The *publisher* generates custom media programming comprising the selected media feed and advertising or other media

elements and provides the custom media programming to the user. EX1002 ¶¶ 35-46.

V. PERSON OF ORDINARY SKILL

A person of ordinary skill in the art at the time of the '261 patent ("POSITA") had at least a Bachelor of Science in electrical engineering, computer engineering, or similar fields and at least two years of practical experience in the field of media processing and/or transmission. More education can supplement for less practical experience, and vice versa. EX1002 ¶¶ 47-50.

Petitioner's expert, Dr. Almeroth, exceeded this level by the priority date. EX1002 ¶¶ 47-50.

VI. CLAIM CONSTRUCTION

No express constructions are required to find the '261 patent claims invalid; however, Petitioner identifies and addresses the plain meaning of certain terms in the analysis for the presented Grounds. EX1002 ¶¶ 51-53.

VII. GROUNDS

A. Ground 1: Whitehead

1. Claim 1

- (a) 1[pre]: *A method of generating customized media programming, comprising the steps of:*

Whitehead discloses system 100 for "receiving a video signal from a network and providing programming such as video to media player 115." EX1003 at 2:4-16.

This includes custom media channel 170 (“*customized media programming*”).

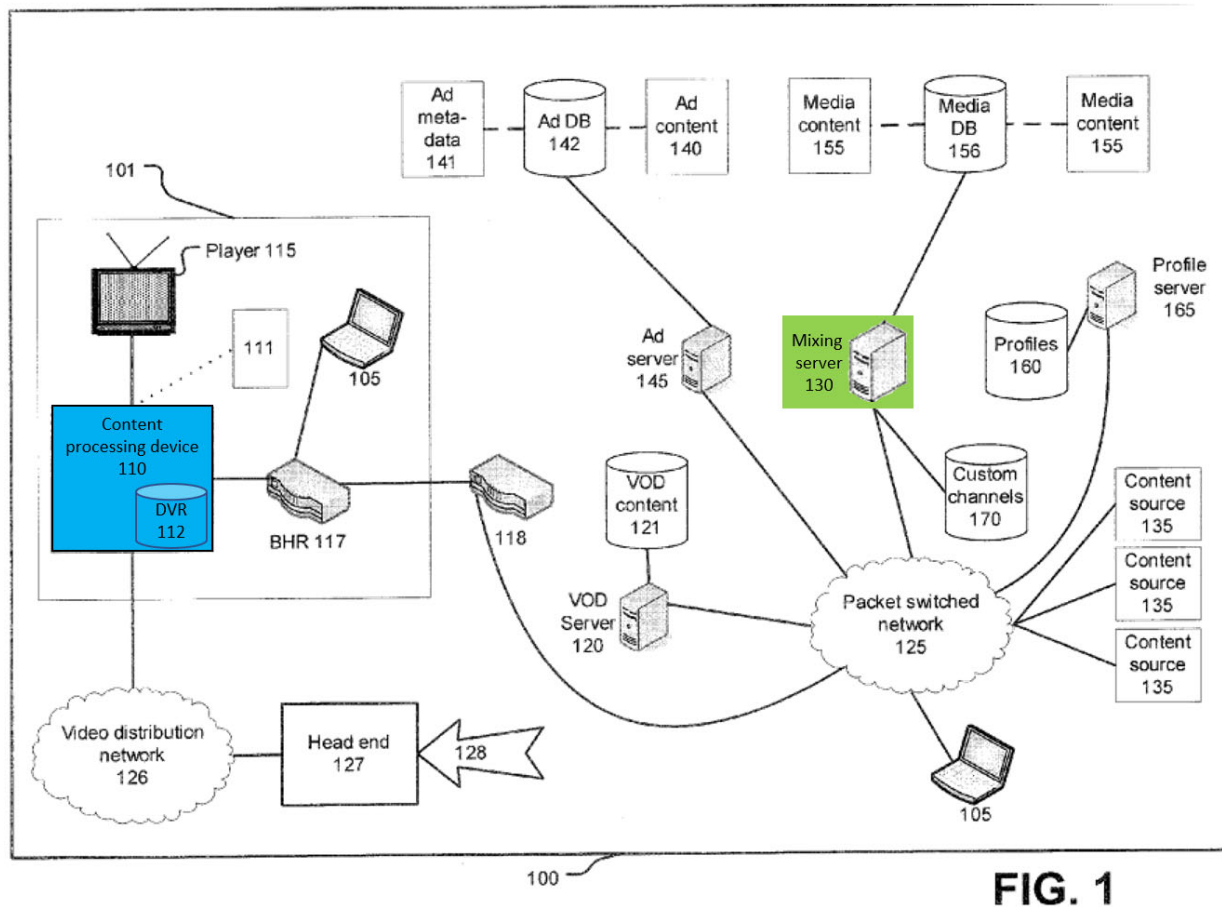
EX1003 at 2:4-6, 11:40-58, Title (“Customized Media On Demand”); EX1002 ¶¶

71.

- (b) 1[a]: *delivering by an aggregator, to a client device associated with a user, a selectable menu of media feeds available from at least one publisher*

Whitehead discloses **content processing device 110**, which is the claimed “*aggregator*,” and **mixing server 130**, which is the claimed “*publisher*.”² EX1002 ¶¶ 72-84.

² References to the ’261 patent claim language are bold and italicized. Emphasis is bolded but not italicized. Emphasis is added unless otherwise indicated.



The '261 patent specification describes an “*aggregator*” as “provid[ing] a presentation element”—i.e., a user interface—“to user 1 120 and 2 130” for different media feeds. EX1001 2:50-53, 3:12-14. Whitehead similarly discloses that its **content processing device 110** presents a menu of media programming available from different sources. For example, Whitehead discloses that its **content processing device 110** “performs operations relating to generating a user interface, e.g., that is displayed in media player 115.” EX1003 at 2:60-3:7; *see also* EX1003 at 15:16-22. A user may then “browse a menu of video-on-demand-options displayed on media player 115.” *Id.* 3:59-4:9, 6:47-7:2. The user may also use

content processing device 110 to “select a channel ... associated with a custom media channel 170.” *Id.* 15:23-41; *see also id.* 18:47-62. Each of these custom media channels 170 includes content from one or more different content sources 135, and a collection of custom media channels thus covers multiple different content sources 135. *Id.* 3:14-28, 5:56-6:9, 7:3-18; EX1002 ¶¶ 72-73.

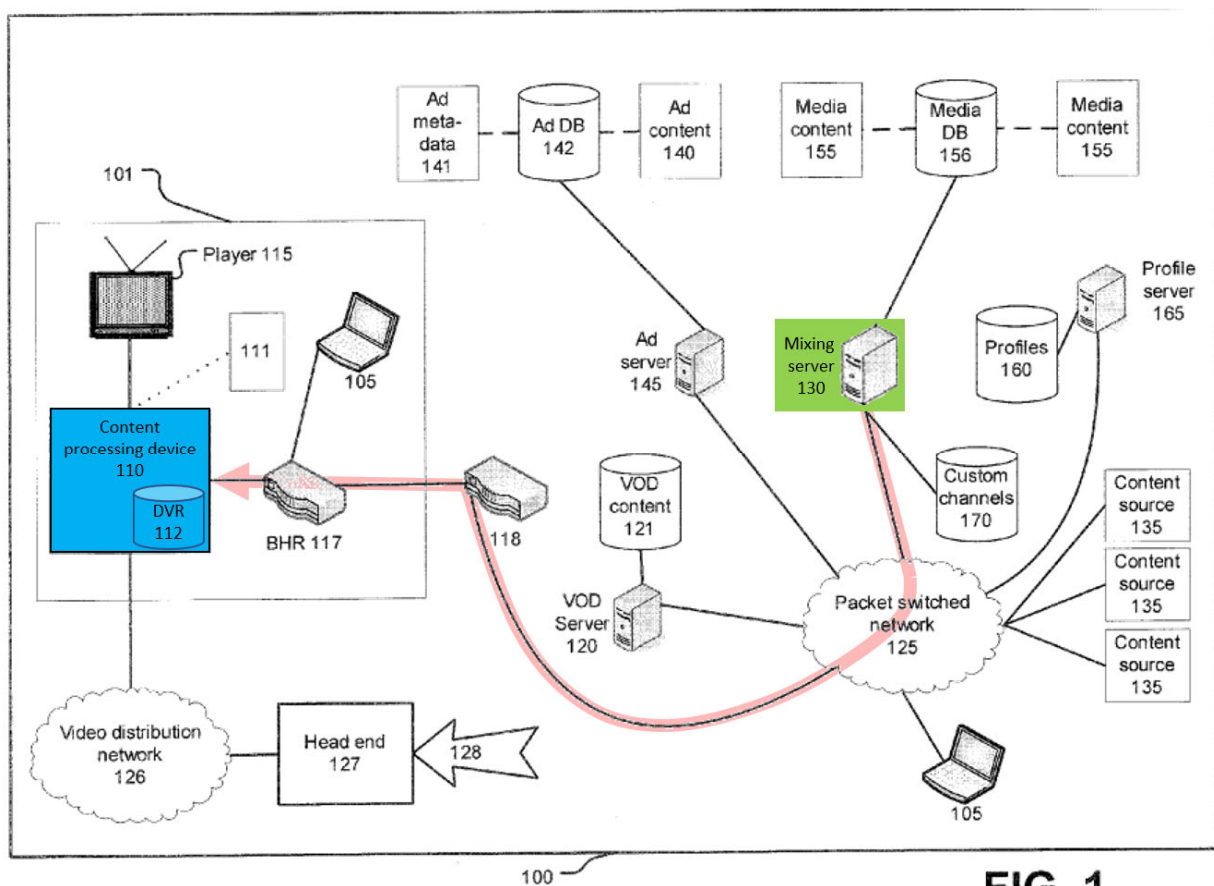
The '261 patent describes the claimed “***publisher***” as a “source[] of media content.” EX1001 at 6:9-21. The same is true for Whitehead’s **mixing server 130**: “A basic purpose of [Whitehead’s] **mixing server 130** is to assemble and deliver to **content processing device 110** one or more custom media channels.” EX1003 at 4:10-26. In addition, Whitehead’s **mixing server 130** may be “combined” with VOD server 120. EX1003 at 4:10-26. Thus, Whitehead’s **mixing server 130** is a source of media content (custom media channels 170 and content from VOD server 120) for **content processing device 110** and accordingly the claimed “***publisher***.” EX1002 ¶ 74.

Whitehead also discloses media player 115 that is either a stand-alone device or software running on computer 105 (“***client device***”) and that a user is interfacing with (“***associated with a user***”). EX1003 at 2:4-16, 2:31-39, 2:52-3:7, 3:59-4:9, 15:16-16:53; EX1002 ¶ 75.

Finally, Whitehead’s **content processing device 110** delivers to media player 115 (“***client device associated with a user***”) for display a “menu” “indicat[ing] a

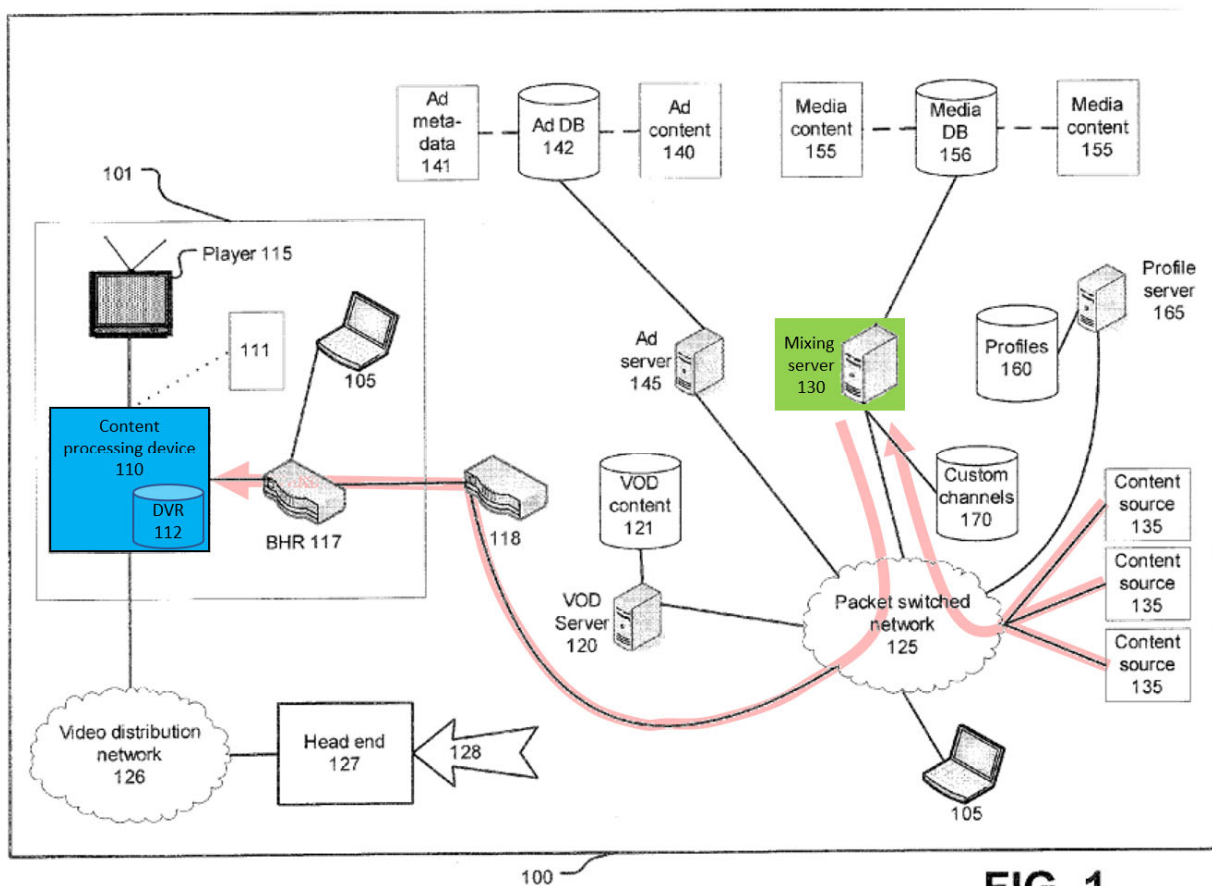
plurality of custom media channels 170” (“*selectable menu of media feeds*”) that are available from **mixing server 130**. EX1003 at 2:60-3:7, 3:59-4:9, 4:45-52, 6:20-34, 10:46-67, 11:9-16, 11:40-58, 15:16-16:53, 18:47-62. Whitehead discloses or renders obvious this limitation under two mappings: the “*media feeds*” are either (1) custom media channels 170 made available to by **mixing server 130** to **content processing device 110** (Media Feed Mapping 1); or (2) media content transmitted from content sources 135 to **mixing server 130** (Media Feed Mapping 2). EX1002 ¶¶ 76-77.

(i) **Media Feed Mapping 1: custom media channels 170 are claimed “*media feeds*”**



Whitehead's menu of available custom media channels provides a "*selectable menu of media feeds*" available from **mixing server 130** because each custom **media channel 170**, if selected, is "**streamed ... to content processing device 110.**" EX1003 at 8:42-64. Thus, custom media channels 170 are themselves the claimed "*media feeds*." EX1002 ¶78.

(ii) **Media Feed Mapping 2: content sources 135 provide claimed "*media feeds*"**



Whitehead's menu of available custom media channels is a "*selectable menu of media feeds*" available from **mixing server 130** because each custom media

channel 170 generated by **mixing server 130** corresponds to a “*media stream*” from a different content source 135. EX1002 ¶79.

First, Whitehead discloses that each custom media channel 170 is created based on a different profile 160, and each profile 160 “identit[ies] ... **one** or more content sources 135 of interest.” EX1003 at 5:56-6:9, 7:3-18, 18:47-62. Each of Whitehead’s plurality of custom media channels 170 can thus correspond to a different content source 135. EX1002 ¶¶80-81.

Second, Whitehead discloses that each content source 135 provides a “*media feed*.” Whitehead discloses that “[c]ontent sources 135 may include a wide variety of sources,” including sources that “broadcast” content “on a particular data at a particular time,” *i.e.*, television channels. EX1003 at 5:9-23, 10:46-67; *see also* EX1003 at 2:52-59, 5:24-42. Television channels provide content as continuous feeds (“*media feeds*”). EX1002 ¶82.

To the extent PO argues that Whitehead’s content sources 135 do not provide “*media feeds*,” Whitehead renders this obvious. Television channels were a well-known source of media content even before the ’261 patent’s priority date. Moreover, a POSITA would be motivated to use television channels as content sources 135. For example, it would be desirable to maximize the number and variety of content sources, since having more sources and variety improves the likelihood of having the best media content in custom media channel 170. As another,

television channels are one of the most popular and abundant sources of media content, and many subscribers expect to have access to such content sources. There would also be a reasonable expectation of success of using television channels as content sources 135. Whitehead already discloses that media content 155 “provided by content sources 135” is “stored in a media database 156.” EX1003 at 5:9-23. Thus, **mixing server 130** could store media content 155 from television channels in database 156 for subsequent inclusion in a custom media channel 170. Alternatively, Whitehead’s **mixing server 130** could switch to the appropriate channels in real time as the media content 155 is being broadcast to generate custom media channel 170. See EX1006 at 32:61-33:8, EX1007 at 5-6; see also EX1002 ¶¶83-84.

- (c) **1[b]: wherein each said media feed comprises a plurality of media elements selected from audio media elements, visual media elements, and combinations thereof and each said media element is tagged in at least one library in communication with at least one publisher**

Whitehead’s **mixing server 130** receives multiple media content 155 (“*plurality of media elements*”) from each content source 135 (“*media feed*” under **Media Feed Mapping 2**) and then combines advertising content 140 and media content 155 (“*plurality of media elements*”) to create each custom media channel 170 (“*media feed*” under **Media Feed Mapping 1**). EX1003 at 4:27-44, 5:9-23, 8:65-9:29, 12:18-37. Whitehead further discloses that its media content 155 and advertising content 140 can be “video,” “audio,” or “multimedia” content (“*audio*

media elements, visual media elements, and combinations thereof). EX1003 at 4:27-44, 4:53-5:3, 5:9-42, 7:3-18. EX1002 ¶ 85.

Whitehead also discloses that the advertising content 140 and media content 155 are associated with advertising metadata 141 in advertising database 142 and content metadata 150 in media database 156 that include “attributes” (“*tagged in at least one library*”), which are in communication with **mixing server 130**, directly or via advertising server 145. EX1003 at Fig. 1, 4:27-44, 4:53-5:23, 5:43-6:9, 8:65-9:29, 11:59-12:7, 12:18-13:27, 13:35-46. EX1002 ¶ 86.

(d) 1[c]: *receiving by the **aggregator** from the client device a selection identifying at least one of said media feeds*

Whitehead’s **content processing device 100** receives a user selection of one of these custom media channels 170 (“*a selection identifying at least one of the feeds*”) from media player 115 (“*client device*”). EX1003 at 4:45-52, 11:9-16, 11:40-58, 15:16-16:53, 18:47-62. This selection corresponds to selection of both the content source 135 corresponding to that custom media channel 170 the custom media channel 170 itself (“*at least one of the media feeds*” under **Media Feed Mapping 1**) and (“*at least one of the media feeds*” under **Media Feed Mapping 2**). EX1002 ¶¶ 87.

(e) 1[d] providing by the **aggregator**, to said **publisher**, an identification of each selected media feed

Whitehead discloses or renders obvious that the **content processing device 110** provides to the **mixing server 130** an identification of the user selection of the media channel 170 (“*feed selection*”).³ EX1002 ¶¶ 88-91.

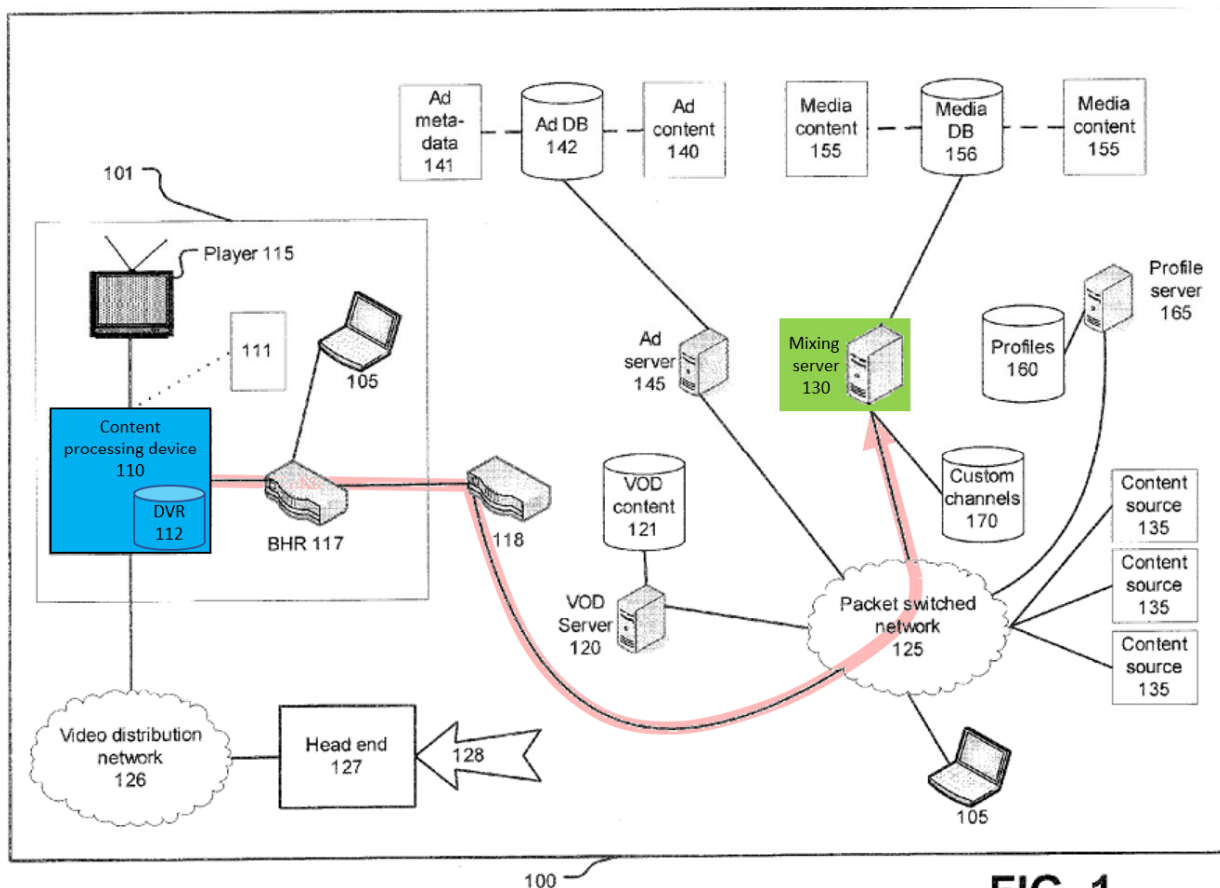


FIG. 1

³ This selection corresponds to selection of both the custom media channel 170 itself (“*media feed*” under **Media Feed Mapping 1**) and the content source 135

Whitehead discloses that “[c]ontent processing device 110 may ... make requests to ... [mixing server] 130, etc. via network 125.” EX1003 at 3:40-51; *see also* EX1003 at 9:30-58. This request “trigger[s]” mixing server 130 “to create one or more custom media channels 170 based on one or more custom channel profiles 160” in “real-time or near real-time.” EX1003 at 11:40-12:17. Where the user has multiple custom media channels 170 to choose from (EX1003 at 11:9-16), this request necessarily identifies the selected custom media channel 170 (“*identification of each selected media feed*”). Otherwise, the mixing server 130 would not know which custom media channel was selected by the user and thus should be created. EX1002 11:40-58, 11:9-16.

To the extent PO argues Whitehead does not disclose that its custom channel request from content processing device 110 to mixing server 130 includes data indicative of the selected custom media channel 170 (“*identification of each selected media feed*”) in its request to mixing server 130, Whitehead renders this obvious. Mixing server 130 must know which custom media channel 170 the user selected to create that channel. EX1003 at 3:40-51, 11:40-58. An obvious implementation is for the content processing device 110 to include an identifier or

corresponding to that custom media channel 170 (“*media feed*” under **Media Feed Mapping 2**).

other data corresponding to the selected custom media channel 170 (“*identification of each selected media feed*”) in its request. Simply including this identifier in the request (rather than conveying it in some other manner) allows **mixing server 130** to locate the corresponding profile 160 faster and thereby facilitates creating the selected custom media channel 170 in real time or near-real-time. EX1003 at 11:40-58; *see also* EX1002 ¶¶89, 91.

- (f) 1[e]: *providing by the aggregator, to said publisher, client information comprising information about the user and information about the associated client device*⁴

Whitehead discloses that **mixing server 130** receives a profile 160 (“*client information about the user and information about the associated client device*”) from **content processing device 110**. Specifically, Whitehead’s **content processing device 110** can be “used to create, modify, and/or delete profiles 160.” EX1003 at 5:56-6:9, 6:35-46, 7:3-18, 10:6-32, 15:16-22, 15:65-16:21. This includes provision of “*client information*” included in those profiles, such as a username, and user interests to profile server 165. EX1003 at 19:16-38. Whitehead’s profile 160 (“*client*

⁴ Claim 1 is a method claim, and there is no requirement that the “providing ... client information” step be performed after the “delivering,” “receiving,” and “providing ... an identification of each selected media feed” steps. *See Interactive Gift Exp., Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1342 (Fed. Cir. 2001).

information”) also tracks user feedback and viewing history. EX1003 at 13:35-46, 18:63-19:15. Whitehead also discloses that profile 160 (“*client information*”) includes “policy control information related to the retrieval and playback of channel 170,” which specifies (for example) whether playback on a client device supports “Realtime Streaming Protocol” (“*information about the associated client device*”). EX1003 at 5:56-6:9. Whitehead’s profile server 165 then transmits that profile (“*client information*”) to **mixing server 130**. EX1003 at 11:40-12:17. Thus, Whitehead’s **content processing device 110** transmits “*client information*” in connection with creating or modifying a profile 160, and Whitehead’s **mixing server 130** receives that same “*client information*” when the user selects the corresponding custom media channel 170. EX1002 ¶¶ 92-93.

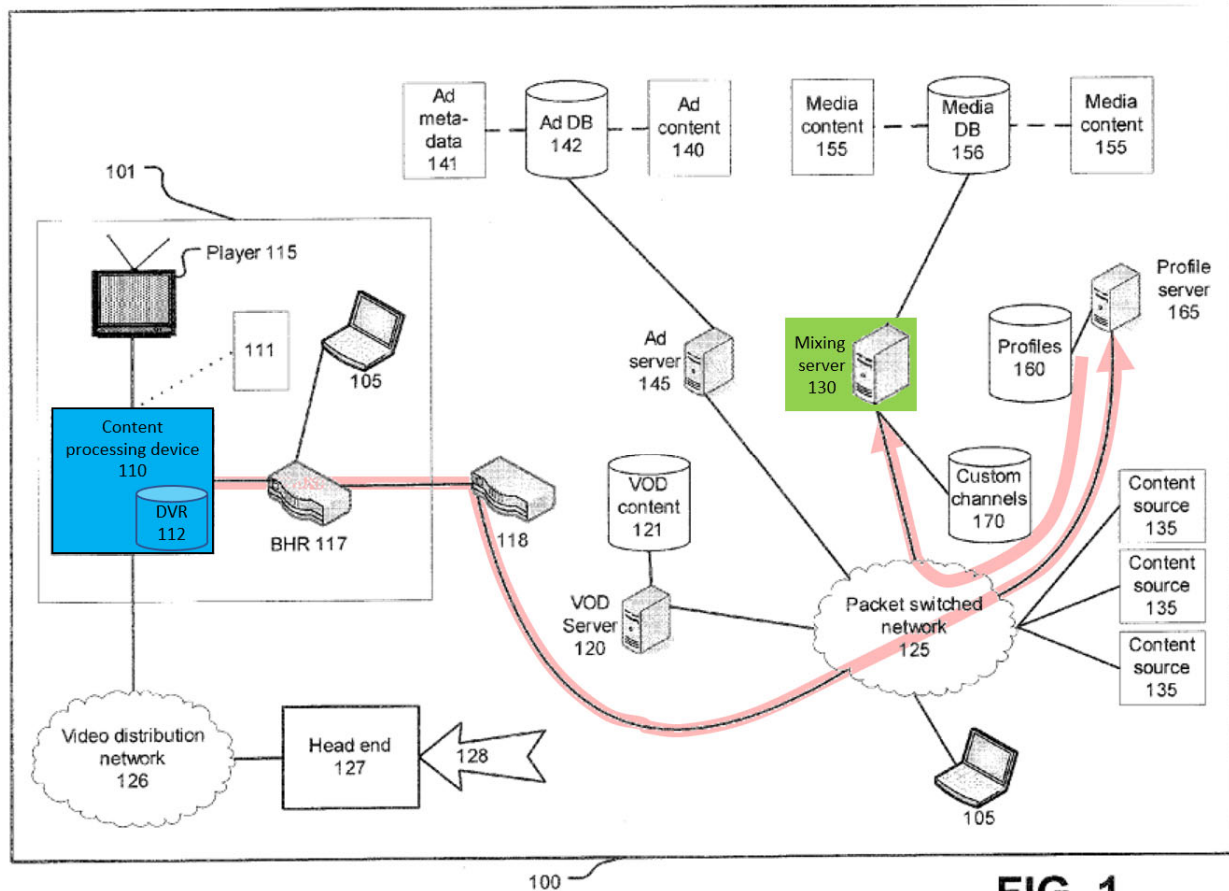


FIG. 1

To the extent PO argues that this limitation requires the *publisher* to receive the client information directly from the *aggregator*, it would have been obvious to implement profile server 165 as part of *mixing server 130*, and *mixing server 130* would maintain in profile 160 (“*client information*”) collected from *content processing device 110*. Whitehead already recognizes that various functionalities in Figure 1 can be combined or shifted between system components. EX1003 at 2:52-59, 4:10-26, 6:35-46, 15:16-22, 19:44-63. Maintaining profiles 160 on *mixing server 130* would simplify processing and communications, since it would eliminate the need for a separate profile server 165 or transmitting complete profile 160 over

the network every time the user requests a custom media channel 170 be generated.

EX1002 ¶ 94.

To the extent PO argues that Whitehead does not disclose that its profile 160 includes “*information about the associated client device*,” Whitehead renders this limitation obvious. Whitehead discloses that profile 160 includes “policy control information related to the retrieval and playback of channel 170,” which specifies (for example) whether playback on a client device supports “Realtime Streaming Protocol” (“*information about the associated client device*”). EX1003 at 5:56-6:9. A POSITA would recognize that “retrieval and playback of channel 170” is often dictated by the capabilities of the client device (“*information about the associated client device*”) including whether it has software to process certain media formats, allows interactive, and the maximum supported video resolution and frame rate. Including such information in profile 160 would allow **mixing server 130** to better cater the custom media channel 170 to the user’s needs while improving efficiency by not exceeding those needs. For example, knowing what formats are supported by the client device would allow **mixing server 130** to ensure it does not transmit custom media channel 170 in an unsupported format. As another example, knowing the client device’s maximum supported video resolution and frame rate would allow **mixing server 130** to transmit custom media channel 170 with the best resolution and frame rate supported by the client device for optimal viewing experience without

needing to send multiple, different formats that unnecessarily consume network bandwidth. Plus, a POSITA would understand that there is a reasonable expectation of success in including such device information in profile 160 and customizing custom media channel 170 based thereon, since **mixing server 130** already supports different transmission formats and its purpose is specifically to customize media channel 170. EX1003 at 4:53-5:3, 5:43-55, 11:40-58; *see also* EX1002 ¶ 95.

To the extent PO argues that this limitation requires the **publisher** to receive the client information directly from the **aggregator** or that the **publisher** itself must track this client information, it would have been obvious to implement profile server 165 as part of **mixing server 130**, and **mixing server 130** would maintain profile 160 (“*client information*”) collected from **content processing device 110**. Whitehead already recognizes that various functionalities in Figure 1 can be combined or shifted between system components. EX1003 at 2:52-59, 4:10-26, 6:35-46, 15:16-22, 19:44-63. Maintaining profiles 160 on **mixing server 130** would simplify processing and communications, since it would eliminate the need for a separate profile server 165 or transmitting complete profile 160 over the network every time the user requests a custom media channel 170 be generated. EX1002 ¶ 96.

- (g) 1[f]: *initiating, by the aggregator, for display at the client device, individual customized media programming comprising media elements selected from one or more libraries in communication with said publisher, wherein the selected media elements (i) correspond to at least one selected media feed and are responsive to said user information, and (ii) are ordered and concatenated at least in part according to each selected media feed and said user information.*

Whitehead's **content processing device 110's** transmission of a request for a custom media channel 170 for playback via media player 115 ("*client device*") initiates creation of the custom media channel 170 ("*individual customized media programming*") by **mixing server 130**. EX1003 at 2:7-16, 3:40-51, 8:42-64, 9:30-58, 11:9-16, 11:38-58, 13:35-46, 14:23-55, 15:16-41, 15:52-64, 16:45-53. EX1002 ¶¶ 97.

Whitehead's **mixing server 130** responds by generating the custom media channel 170 ("*individual customized media programming*") comprising advertising content 140 from advertising database 142 and media content 155 from media database 156 ("*media elements selected from one or more libraries*"). EX1003 at Fig. 1, 4:27-44, 4:53-5:23, 5:43-6:9, 8:65-9:29, 11:59-12:7, 12:18-13:27, 13:35-46; *see also* EX1002 ¶ 98.

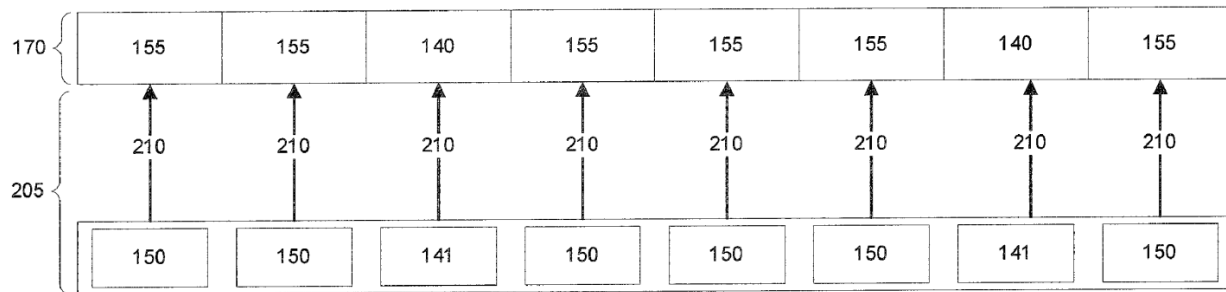
Whitehead's **mixing server 130** includes in custom media channel 170 ("*individual customized media programming*") media content 155 ("*selected media elements*"), which is from custom media channel 170 ("*at least one of the media*

feeds” under **Media Feed Mapping 1**) and from content source 135 corresponding to that custom media channel 170 (“*at least one of the media feeds*” under **Media Feed Mapping 2**), selected based on profile 160 (“**said user information**”). EX1003 at 8:28-41, 12:18-37, 13:7-14; *see also* EX1002 ¶ 99.

Whitehead’s **mixing server 130** then “*concatenate[es]*” the media content 155 (“*selected media elements*”) and advertising content 140 that comprise custom media channel 170 according to the order specified by playlist 205 based profile 160 (“*user information*”). EX1003 at 4:10-26, 5:56-6:9, 6:47-7:2, 8:28-41, 8:42-64, 13:35-46.⁵ In addition, profile 160 (“*user information*”) includes “a specification of a playback mode” (e.g., “continuous” vs. interactive) which in turn dictates whether, for example, to generate custom media channel 170 by “**concatenating** various

⁵ During prosecution of the related ’753 patent, applicant argued that “concatenate” requires clips “to link together, to unite in successive series or chain, as things depending on each other.” EX1017 at 76. Whitehead meets even that definition because it discloses streaming custom media channel 170 as a single file (EX1003 8:42-64) which means the individual media content 155 and advertising content 140 are “link[ed] together” and “unite[d]” in a single video sequence and “depend[] on each other” because a media element only begins playing after the prior media element has finished playing. EX1002 ¶ 100 fn. 4.

items of advertising content 140 and/or media content 155.” EX1003 at 5:56-6:9, 6:47-7:2, 8:42-64. Exemplary “*media programming*” with advertising content 140 and/or media content 155 “*ordered and concatenated*” is shown in Whitehead’s Figure 2. EX1002 ¶ 100.



2. Claim 2:

- (a) 2[a]: *The method according to claim 1, further comprising the steps of collecting by the aggregator, from the client device, user information comprising information about an identified user*

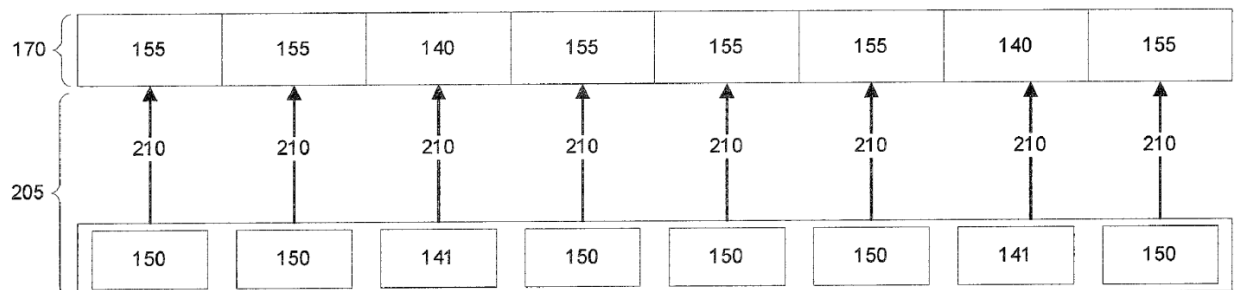
Whitehead’s **content processing device 110** receives from media player 115 (“*client device*”) user feedback and viewing history (“*user information comprising information about an identified user*”) and from computer 105 running media player 110 (“*client device*”) other information about the user maintained as part of profile 160 (“*user information comprising information about an identified user*”). EX1003 at 2:17-30, 7:3-18, 13:47-61, 18:63-19:15; EX1002 ¶ 101.

To the extent PO argues that this limitation requires the **aggregator** itself must track this client information, it would have been obvious to implement profile server 165 as part of **content processing device 110** , and **content processing device 110**

would maintain profile 160 (“*user information comprising information about an identified user*”) collected from media player 115 and/or computer 105 (“*client device*”). Whitehead already recognizes that various functionalities in Figure 1 can be combined or shifted between system components. EX1003 at 2:52-59, 4:10-26, 6:35-46, 15:16-22, 19:44-63. Maintaining profiles 160 on **content processing device 110** would simplify processing and communications, since it would eliminate the need for a separate profile server 165 or looking up specific sets of profiles a user of **content processing device 110** is permitted to update. EX1002 ¶ 102.

(b) **2[b]: selecting media elements comprising said individual customized media programming according to parameters and instructions for assembling media programming based on the collected user information.**

Whitehead’s **mixing server 130** assembles custom media channel 170 (“*media programming*”) comprising media content 155 and advertising content 140 based on profile 160 (“*collected user information*”). Section VII.A.1.g. An exemplary “*assembl[ed] media programming*” is shown in Whitehead’s Figure 2:



Moreover, this assembly is performed based on numerous “*parameters and instructions.*” The selection process 400 responsible for this assembly is software

consisting of “**instructions.**” EX1003 at 7:44-8:14, 11:38-39. The process is triggered by the receipt of “an **instruction**” to create custom media channel 170. EX1003 at 11:40-58. **Mixing server 130** generates the custom media channel 170 based on profile 160 containing various “**parameters,**” and **mixing server 130** formulates additional “**parameters**” to select media content 155 and advertising content 140. EX1003 at 5:4-8, 12:18-37, 12:64-13:6. **Mixing server 130** also relies on advertising metadata 141 and media content metadata 150 (“*parameters*”) as part of that assembly process. EX1003 at 4:27-44, 4:53-5:3, 5:9-23, 5:43-6:9, 7:3-18, 8:65-9:29, 12:18-13:27. Finally, Whitehead’s **mixing server 130** assembles the final custom media channel 170 according to a playlist 205 (“*parameters and instructions*”) that “determines an order” for the “items of advertising content 140 and media content 155” (“*media elements*”). EX1003 at 2:7-16, 8:28-9:29, 13:35-46, 14:20-55, FIG. 2; Section VII.A.1.g; EX1002 ¶¶ 103-104.

3. **Claim 3: *The method according to claim 2, wherein the parameters and instructions are embodied in one or more templates, each template comprises a plurality of rules associated with said tags of said tagged media elements, and each template is associated with a selected library or a selected media feed.***

The '261 patent does not define template, nor is the plain meaning of “template” limited to any specific data structure. Indeed, PO in its complaint accused TikTok’s video recommendation algorithms as a whole of being a claimed “template.” EX1018 ¶ 171. Under that interpretation, the “*parameters and*

instructions” identified in Section VII.A.2 comprise a “*one or more templates*” because they specify the content and structure of the resultant custom media channel. But even under a narrower interpretation that requires the “*template*” to have a specific format, such as providing the final set of “*plurality of rules*” that will then be used to populate the custom media channel 170 (“*selected media feed*”), Whitehead’s playlist 205 qualifies as such a “*template*” because it consists of an ordered list of reference pointers that are then used to populate the media content 155 and advertising content 140 included in the custom media channel 170. EX1003 at 2:7-16, 8:28-9:29, 13:35-46, 14:20-55, FIG. 2. EX1002 ¶ 105.

In addition, each of these “*templates*” includes “*a plurality of rules associated with said tags of said tagged media elements.*” Process 400 is defined by software instructions used to assemble custom media channel 170 from advertising metadata 141 and media content metadata 150, including “attributes” found therein (“*a plurality of rules associated with said tags of said tagged media elements*”). EX1003 at 7:44-8:14, 11:38-39. Advertising metadata 141 and media content metadata 150 (“*tags of said tagged media elements*”) dictate what advertising content 140 and media content 155 are included in custom media channel 170 and thus are themselves “*rules*” for controlling that assembly process. EX1003 at 4:27-44, 4:53-5:3, 5:9-23, 5:43-6:9, 7:3-18, 8:65-9:29, 12:18-13:27. And Whitehead’s **mixing server 130** assembles the final custom media channel 170 according to a

playlist 205 (“**rules**”) that “determines an order” for the “items of advertising content 140 and media content 155” by including advertising metadata 141 and media content metadata 150 and “attributes” found therein (“**tags of said tagged media elements**”). EX1003 at 2:7-16, 8:28-9:29, 13:35-46, 14:20-55, FIG. 2; Section VII.A.1.g; *see also* EX1002 ¶ 106.

Finally, process 400, advertising metadata 141, media content metadata 150, and playlist 205 (“**templates**”) are associated with advertising database 142 and media database 156 (“**a selected library**”) from which the advertising and media content metadata included in playlist 205 by process 400 is retrieved and the custom media channel 170 corresponding to content source 135 that is created using the advertising and media content metadata included in playlist 205 via process 400 (“**selected media feed**”). EX1003 at 2:7-16, 4:27-44, 4:53-5:3, 5:9-23, 5:43-6:9, 7:3-18, 8:28-9:29, 12:18-13:27, 13:35-46, 14:20-55, FIG. 2; EX1002 ¶ 107.

4. Claim 4: The method according to claim 3, wherein the template is processed according to at least one rule for selection and sequencing of tagged media elements according to collected user information.

Whitehead’s playlist 205, advertising metadata 141, media content metadata 140, and playlist 205 (“**template**”) are all processed based on and in connection with profile 160 (“**collected user information**”) and process 400, advertising metadata 141, media content metadata 150, and playlist 205 (“**at least one rule for selection**”).

and sequencing of tagged media elements”). See Section VII.A.1.f-g, VII.A.2-3; EX1002 ¶ 108.

5. **Claim 5:** *The method according to claim 1, wherein a first media feed responsive to the selection of one of the media feeds is furnished during a first time period and a second media feed comprising the individual customized media programming is furnished during a second time period.*

Whitehead discloses that custom media channel 170 may be dynamically generated in “near real-time.” EX1003 at 11:40-58. But “near real-time” is different from “real time.” Thus, there is a short interval after the user selects the custom media channel 170 and before that custom media channel 170 is generated (“*a first time period*”). After the system completes this processing (“*during a second time period*”), it begins playing the custom programming (“*individual customized media programming*”). EX1002 ¶ 109.

Moreover, it would have been obvious during this “*first time period*”—before dynamic programming becomes available—to instead provide “*a first feed*.” For example, it would be obvious to play a predetermined advertisement during this time. Whitehead already discloses that advertisement need not be based on user information. EX1003 at 12:38-55. Showing the user a predetermined advertisement rather than forcing the user to just wait while the custom media channel 170 is being created would generate additional advertising revenue and lower the likelihood the user loses interest while waiting for custom media channel 170. Moreover, there is

a reasonable expectation of success since Whitehead already discloses providing such predetermined advertisements. EX1002 ¶ 110.

6. Claim 6: *The method according to claim 1, wherein the user information comprises a user profile.*

Whitehead's profile 160 ("*user information*") is expressly referred to as a "*user profile*." EX1003 at 19:16-38. Indeed, profile 160 is associated with a specific user that logs into that profile and further contains profile information about that user. EX1003 at 5:56-6:9, 7:3-18, 10:6-32, 15:23-41; EX1002 ¶ 111.

7. Claim 7: *The method according to claim 1, wherein the user information comprises user preference data.*

Whitehead's profile 160 ("*user information*") includes information on the user's interests, including content, content categories, and sources of content preferred by the user ("*user preference data*"). EX1003 at 5:56-6:9, 7:3-18, 10:46-67, 12:18-37, 13:35-46, 18:63-19:15, 19:16-38; EX1002 ¶ 112.

8. Claim 8: *The method according to claim 1, wherein the media programming comprises multiple streams of media elements.*

Whitehead discloses or renders obvious this claim under both **Media Feed Mapping 2** ("*feed*" is the selected custom media channel 170) and **Media Feed Mapping 1** ("*feed*" is a particular content source 135 corresponding to a selected custom media channel 170). EX1002 ¶ 113.

(i) Media Feed Mapping 1

Whitehead discloses or renders obvious that **mixing server 130** provides a custom media channel (“*media programming*”) concatenating elements from multiple different content sources 135 (“*stream of media elements*”). EX1003 at 5:9-23, 7:3-18, 14:23-55; *see* Section VII.A.1.b; EX1002 ¶ 114.

(ii) Media Feed Mapping 2

Whitehead renders obvious that **mixing server 130** provides a custom media channel (“*media programming*”) concatenating elements from the corresponding content source 135 (a first “*stream of media elements*”) and advertising content 140 (a second “*stream of media elements*”). EX1003 at 8:42-64. For the reasons Whitehead discloses or renders obvious that content source 135 could be a broadcast television channel (“*stream of media elements*,” *see* Section VII.A.1.b), Whitehead also renders obvious that advertising content 140 could also be from a broadcast television channel (“*stream of media elements*”). Indeed, if media content 155 is from a broadcast television channel, receiving advertising content 140 also from a broadcast television channel simplifies processing, as the system can use the same receiving, processing, and concatenating technology for both types of content. EX1002 ¶ 115.

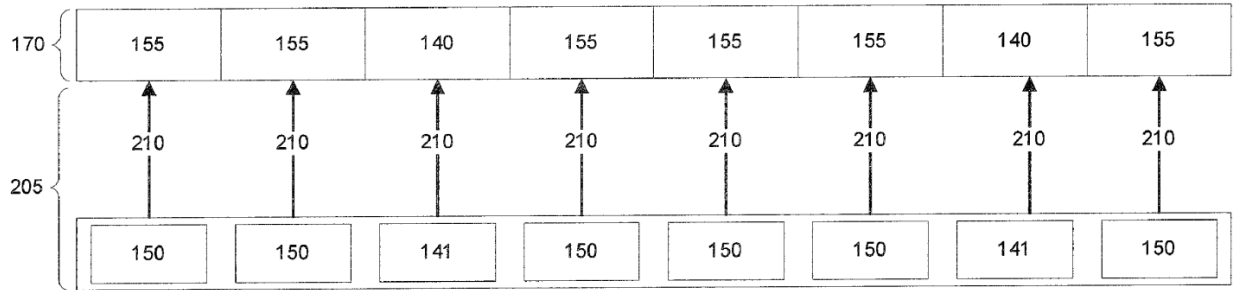
9. **Claim 9:** *The method according to claim 8, wherein at least a portion of the multiple streams are concatenated according to user information.*

Whitehead discloses concatenating media content 155 and advertising content 140 based on profile 160 (“*user information*”). See Section VII.A.1.f. In addition, Whitehead discloses or renders obvious that the media content 155 and advertising content 140 are received from (and thus are “*portions of*”) “*multiple streams.*” Section VII.A.8. EX1002 ¶ 116.

10. **Claim 10:** *The method according to claim 1, wherein the media elements comprise transitions, and the media elements are dynamically positioned, temporally or spatially, within the context of the media programming.*

Whitehead’s **mixing server 130** generates a playlist 205 with a particular “order of media content 155” within the resultant custom media channel 170 (“*media elements ... positioned, temporally . . . within the context of the media programming*”)⁶. EX1003 at 4:10-26, 4:27-44, 8:28-41, 8:42-64, 11:40-58, 13:35-46. This is shown, for example, in Whitehead’s Figure 2:

⁶ The order of programming in playlist 205 is “temporal” because the programming is assembled into a single file, streamed to the content processing device 110, and displayed to the user in that order. EX1003 8:42-64, 16:66-17:17, 20:8-21:11.



Further, advertising content 140 (“*media elements*”) is “*dynamically positioned*” within the custom media channel 170 because the entire custom media channel 170 is generated in real time or near-real time (“*dynamically*”) and the advertising content 140 is further inserted after the rest of the sequence is generated (“*dynamically*”). EX1003 at 4:53-5:3, 11:40-58, 12:38-55; EX1002 ¶¶ 117-118.

Finally, Whitehead’s advertising content 140 (“*media elements*”) qualify as “*transitions*” at least under PO’s interpretation of that term. In its complaint, PO alleged that “transition clips” include “advertisements.” EX1011 ¶ 46, 143. Under this interpretation, Whitehead’s advertising content 140 (“*media elements*”) are “*transitions*” because they placed and transition between different items of media content 155. *See* EX1003 at at FIG. 2. EX1002 ¶ 119.

B. Ground 2: Whitehead and Marcus '904⁷

1. Motivation to Combine & Reasonable Expectation of Success

A POSITA would have modified Whitehead's **mixing server 130** to incorporate Marcus '904's algorithm (running on Marcus '904's receiver) for receiving, selecting, ordering, and assembling different media streams (both for content and advertising) for at least the following reasons:

More choices: Having many different content sources to choose from when generating custom media programming is desirable because it makes it more likely the system will identify content best suited for a particular user. Similarly, additional advertising choices allow for more targeted advertising and/or an opportunity to maximize revenue. Modifying Whitehead's system to incorporate the content and advertising sources described in Marcus '904 thus improves Whitehead's ability to target content and advertising to a particular user. EX1002 ¶ 122.

Incorporating Marcus '904's content and advertising sources would unlock new revenue sources for Whitehead: Marcus '904 states that it facilitates generating revenue from transmitting content from niche content and advertising sources. EX1005 ¶¶ 5-13. Cristofalo also discloses providing both content and advertising to

⁷ All limitations of the challenged claims not expressly addressed in Ground 2 are disclosed or rendered obvious by Whitehead for the reasons in Ground 1.

users. EX1004 ¶¶ 29, 35-36. A POSITA would be motivated to use Marcus '904's content and advertising sources to unlock additional potential sources of revenue for Whitehead's system. EX1002 ¶ 123.

Incorporating aspects of Marcus '904's content selection and concatenation algorithm improves Whitehead's efficiency: Marcus '904 describes generating custom media programming by starting targeted content or advertising into a “primary” stream. EX1005 ¶¶ 48, 82-87, 148, 237, 251, 594. By starting with or having as fallback Marcus '904's “primary” stream, rather than individually selecting each piece of media content, Whitehead's system would need to select fewer pieces of media content for its custom media channel. EX1002 ¶ 124.

Similar field of art: Both Whitehead and Marcus '904 generate custom media programming based on a user profile. EX1003 at Abstract; EX1005 ¶¶ 82-87; EX1002 ¶ 125.

Whitehead already teaches different content sources (including broadcast sources) and focusing a custom media channel on a specific content source: Whitehead discloses different content sources, including broadcast television content sources, and further discloses that a particular user profile can identify a specific content source. *See* Section VII.A.1.c. Thus, incorporating Marcus '904's teachings would not require redesigning Whitehead's architecture and instead merely supplements Whitehead's disclosure. EX1002 ¶ 126.

Software modification would be predictable: Petitioner’s proposed modification can be implemented entirely in software and does not require any hardware modifications. Indeed, Whitehead acknowledges that such modifications are possible. EX1003 at 19:64-20:6, 22:26-40; EX1002 ¶ 127.

2. **Claim 1[a]:** *delivering by an aggregator, to a client device associated with a user, a selectable menu of media feeds available from at least one publisher*

All independent claims require “*a selectable menu of media feeds.*” As addressed in Ground 1, **Media Feed Mapping 2**⁸ maps the claimed “*menu of media feeds*” onto Whitehead’s content sources 135. Marcus ’904 further renders obvious that Whitehead’s content providers 135 are “*media feeds.*” Marcus ’904 expressly discloses a “receiver” that receives “a plurality of tagged media streams” and “assembles” those “media streams” into “programming.” EX1005 ¶¶ 34, 37-42, 48; EX1002 ¶ 128.

⁸ For **Media Feed Mapping 1**, there should be no dispute that Whitehead’s custom media channels are “media feeds.” Whitehead expressly teaches “stream[ing]” these channels. EX1003 8:42-64; EX1002 ¶ 128 fn. 6.

3. **Claim 1[f]:** *initiating, by the **aggregator**, for display at the client device, individual customized media programming comprising media elements selected from one or more libraries in communication with said **publisher**, wherein the selected media elements (i) correspond to at least one selected media feed and are responsive to said user information, and (ii) are ordered and concatenated at least in part according to each selected media feed and said user information.*
4. **Claim 2[b]:** *selecting media elements comprising said individual customized media programming according to parameters and instructions for assembling media programming based on the collected user information.*
5. **Claim 4:** *The method according to claim 3, wherein the template is processed according to collected user information and at least one algorithm for selection and sequencing of media elements, assembling the media elements, and providing a feed to the user.*

For limitations 1[f] and 2[b] and claim 4, as addressed in Ground 3, Marcus '904 discloses all aspects of the challenged claim pertaining to an algorithm for selecting, sequencing of media elements, assembling the media elements based on “*user information.*” See Section VII.C.2.f, VII.C.5. To the extent any of those elements are missing from Whitehead, they are rendered obvious by Marcus '904. EX1002 ¶ 129.

6. **Claim 3:** *The method according to claim 2, wherein the parameters and instructions comprise a template.*

Whitehead discloses generating custom media channel 17 using “*parameters and templates*” (Section VII.A.2) but does not use the word “*template.*” Marcus '904 includes additional discussion of “*templates*” generated by “experts in programming

and popular producers and artists” that can further control “Program Aesthetics.” EX1005 ¶¶ 324-327. A POSTIA would be motivated to integrate Marcus ’904’s “templates” into Whitehead’s custom media channel 170 generation process to further improve the overall appeal of the custom media channel 170 based on input from human experts rather than relying solely on computer processing, which may be less adept at taking into account concepts such as “Aesthetics.” EX1002 ¶ 130.

7. Claim 8: *The method according to claim 1, wherein the media programming comprises multiple streams of media elements.*

As addressed in Ground 1, Whitehead renders obvious that advertising content 140 may be obtained a first “*stream[]*.” Section VII.A.9. Marcus ’904 further renders obvious that such advertising content 140 can be received in the form of a “*media stream.*” EX1005 ¶¶ 48, 252, 275; EX1002 ¶ 131.

8. Claim 10: *The method according to claim 1, wherein the media elements comprise transitions, and the media elements are dynamically positioned, temporally or spatially, within the context of the media programming.*

Marcus ’904 expressly discloses “*media elements*” that include “*transitions,*” either as free-standing “[s]hort transitional elements” or by modifying parts of other “media elements” to include, e.g., “slow dissolves.” EX1005 ¶¶ 86, 191, 287, 309, 646, 649, 663; *see also* EX1008 at 2:29-31, 4:28-29; 4:34-38, 8:33-35, 8:51-56, 14:13-17; 14:43-45. EX1002 ¶ 132.

C. Ground 3: Cristofalo and Marcus '904

1. Motivation to Combine & Reasonable Expectation of Success

A POSITA would have modified Cristofalo's **transmitting system 102** to incorporate Marcus '904's algorithm (running on Marcus '904's receiver) for receiving, selecting, ordering, and assembling different media streams (both for content and advertising) for at least the following reasons:

*Cristofalo's **transmitting system 102** benefits from targeting content to specific users by incorporating the teachings in Marcus '904:* In describing targeting performed by **transmitting system 102**, Cristofalo states that “[i]nstead of creating a unique media object for each user's profile, the process preferably pushes media objects to specific users based upon user identifiers.” EX1004 ¶ 48. Cristofalo recognizes, however, “as bi-directional data link throughput capacity increases, various other routing techniques may be utilized to push media object based targeted advertising and programming to users.” EX1004 ¶ 48. Indeed, Cristofalo expressly states that “the present invention may be utilized in a unicast environment (i.e., where the content/media objects are transmitted to a single user).” EX1004 ¶¶ 9, 19. And transmission capacity did, in fact, increase since Cristofalo's filing in 2001. *See* Section IV.A. Unsurprisingly then, Marcus '904 includes additional disclosure of targeting media programming to specific users, leading to better customization of media programming by Cristofalo's **transmitting system 102** (with Cristofalo's

receiving system 104 retaining ability to insert media objects as overlays, *see* EX1004 ¶ 41). EX1002 ¶ 134, 136.

Incorporating Marcus '904's content selection, ordering, and assembly algorithm provides additional implementation details for Cristofalo's targeting system: Cristofalo discloses that targeted content may be selected at **transmitting system 102**, **receiving system 104**, or a combination of the two. EX1004 ¶¶ 35-36, 44, 49. Cristofalo generally addresses creating custom programming but does not provide many details on how Cristofalo's media objects are selected at its **transmitting system 102** or **receiving system 104** or how the final media programming is generated and formatted for display. The additional disclosure in Marcus '904 (and Marcus '156 incorporated by reference therein) provides such additional details, which can be incorporated into either Cristofalo's **transmitting system 102** or **receiving system 104**. EX1002 ¶¶ 135-136.

Incorporating Marcus '904's content and advertising sources would unlock new revenue sources for Cristofalo: Marcus '904 states that it facilitates generating revenue from transmitting content from niche content and advertising sources. EX1005 ¶¶ 5-13. A POSITA would be motivated to use Marcus '904's content and advertising sources to unlock additional potential revenue sources for Cristofalo's system. EX1002 ¶ 137.

Similar field of art: Both Cristofalo and Marcus '904 generate custom media programming. EX1004 at Abstract; EX1005 ¶¶ 82-87; EX1002 ¶ 138.

Cristofalo already includes the framework necessary for implementing Marcus '904's selection, ordering, and assembly algorithm: Cristofalo discloses that both its **transmitting system 102** and **receiving system 104** have access to use profile information and customize media programming based on the same. EX1004 ¶¶ 35-36, 44, 49. Thus, incorporating Marcus '904's teachings would not require redesigning Cristofalo's architecture and instead merely supplements Cristofalo's disclosure. EX1002 ¶ 139.

Software modification would be predictable: Petitioner's proposed modification can be implemented entirely in software and does not require any hardware modifications. Indeed, Cristofalo acknowledges that such modifications are possible. EX1004 ¶ 57; EX1002 ¶ 140.

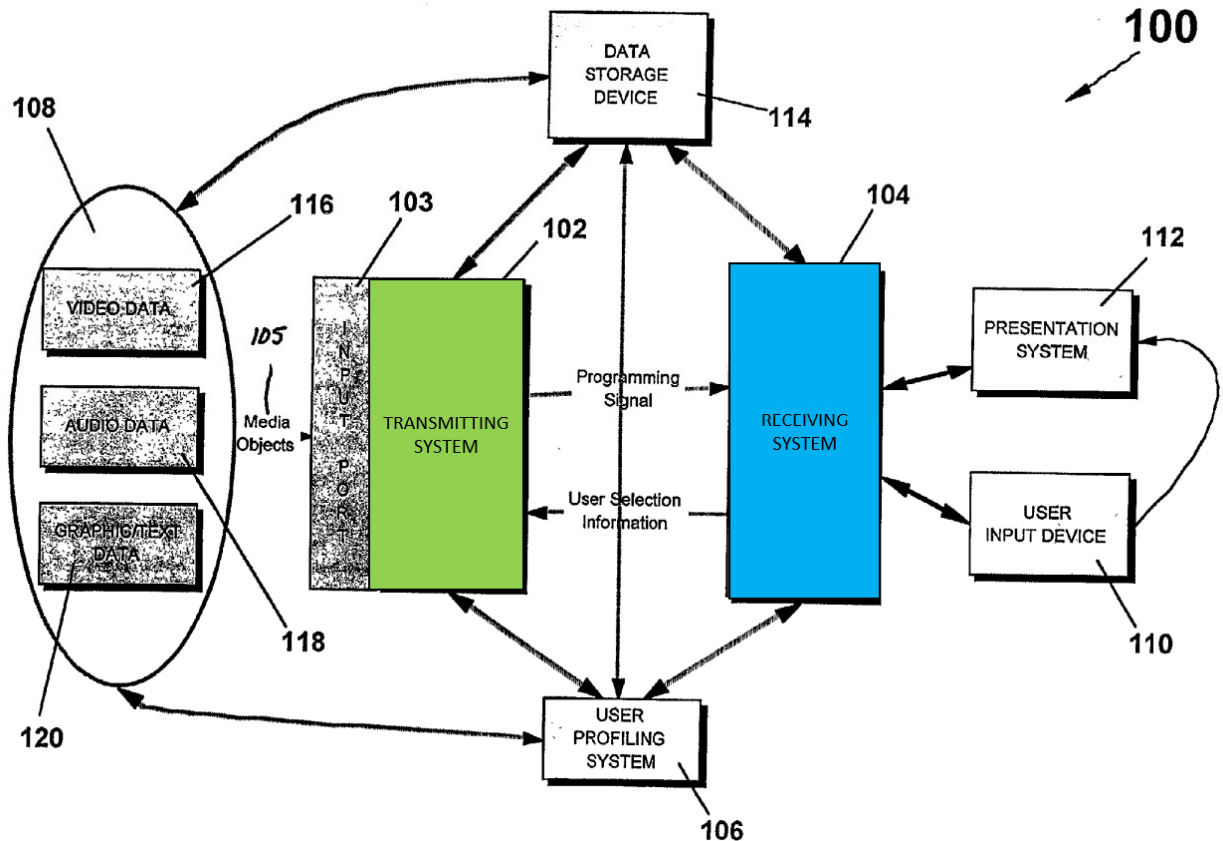
2. Claim 1

(a) 1[pre]: *A method of generating customized media programming, comprising the steps of:*

Cristofalo discloses "a system and process for targeting programming (including, but not limited to, advertising) to users." EX1004 at Abstract, ¶ 46; EX1002 ¶ 141.

- (b) 1[a]: *delivering by an aggregator, to a client device associated with a user, a selectable menu of media feeds available from at least one publisher*

Cristofalo discloses **receiving system 104**, which is an “**aggregator**,” and **transmitting system 102**, which is the claimed “**publisher**.”



The '261 patent specification describes an “**aggregator**” as “provid[ing] a presentation element to user 1 120 and 2 130” for different media feeds. EX1001 2:50-53, 3:12-14. Cristofalo similarly discloses that its **receiving system 104** allows a user to “select[] the described programming ... to be received and presented” from among “numerous programming options.” EX1004 ¶ 46. Cristofalo further discloses that those “programming options” can be from different “media object creators 108,

broadcasters, local affiliates, and others,” such as “a cable signal ... contain[ing] numerous programming signals (i.e., ABC, CBS, FOX, etc.).” EX1004 ¶¶ 29, 37, 52. EX1002 ¶¶ 142-143.

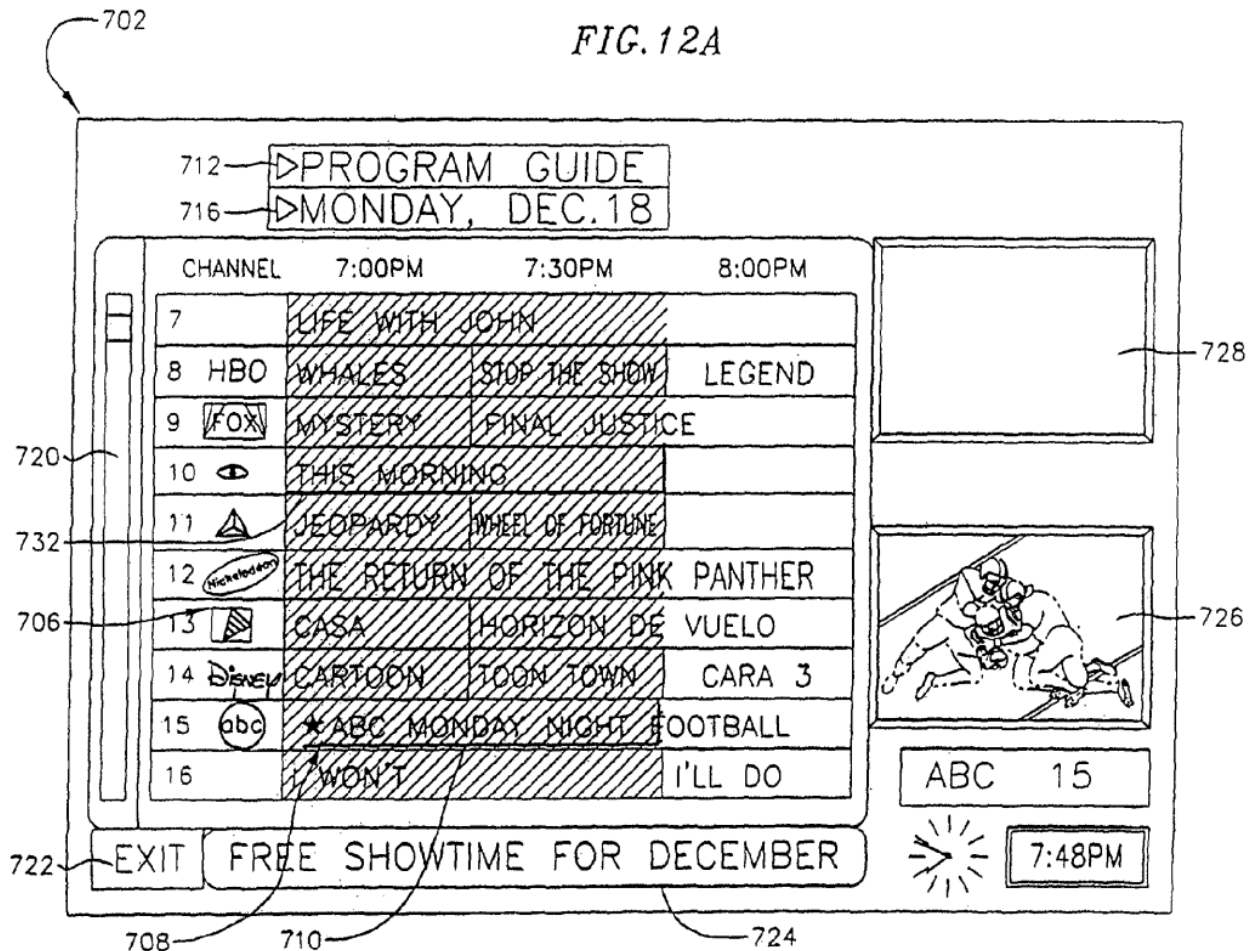
The '261 patent describes the claimed “***publisher***” as a “source[] of media content.” EX1001 at 6:9-21. The same is true for Cristofalo’s **transmitting system 102**: it is the source of programming (e.g., media objects) for the **receiving system 104** and ultimately for the user. EX1004 ¶¶ 9, 19, 22, 34, 38, 47-48, 54; *see also* EX1004 at Fig. 1 (**transmitting system 102** sending “Programming Signal” to **receiving system 104**). EX1002 ¶ 144.

Cristofalo further discloses a presentation system 112 and user input device 110 (“***client device***”) and that a user is interfacing with (“***associated with a user***”). EX1004 ¶¶ 20, 24, 25, 32. EX1002 ¶ 145.

For Cristofalo’s user to be able to “select[] the desired programming” from “numerous programming options” (EX1004 ¶ 46), Cristofalo’s **receiving system 104** necessarily delivers the user with the programming options (e.g., different broadcast channels) (“***deliver[s] ... a selectable menu of media feeds available from at least one publisher***”) via presentation system 112 and user input device 110 (“***client***”). *See also* EX1004 ¶¶ 20, 25, 29, 32, 49; EX1002 ¶ 146.

Moreover, it would have been obvious to implement Cristofalo’s **receiving system 104** as a program guide for presenting programming options from different

channels (“*deliver[ing] ... a selectable menu of media feeds available from at least one publisher*”). A program guide was a well-known UI for interacting with television sources even before the '261 patent's priority date. See EX1013 (filed April 11, 1997, issued May 14, 2002, § 102(b) art) at Fig. 12A:



A POSITA implementing Cristofalo would be motivated to present users with a UI they were already familiar with and would thus find it obvious to use a program guide. Using such a well-known system would also ensure there is a reasonable expectation the implementation would be successful. EX1002 ¶¶ 147-148.

- (c) **1[b]: wherein each said media feed comprises a plurality of media elements selected from audio media elements, visual media elements, and combinations thereof, and each said media element is tagged in at least one library in communication with at least one publisher**

Cristofalo's media programming is generated and provided to the user "in the form of media objects," where the media objects ("*media elements*") are "provided in any medium desired including, for example, **audio, video, graphical, and textual**," as well as "**audio-visual content**." EX1004 ¶¶ 2, 16-17; EX1002 ¶ 149.

Cristofalo's media objects 105 ("*media elements*") are stored on data storage device 114 ("*in at least one library*") which is in communication with the **transmitting system 102**. EX1004 ¶¶ 9, 19, 22, 26, 34, 38, 47-48, 54, Fig. 1. Marcus '904 further renders obvious "*media elements*" may be "*tagged*" and stored in a database ("*in at least one library*") to facilitate identification and selection of media elements in custom media programming. EX1005 ¶¶ 32-42; EX1002 ¶ 150.

- (d) **1[c]: receiving by the aggregator from the client device a selection identifying at least one of said media feeds**

Cristofalo discloses that its **receiving system 104** allows a user to "select[] the described programming ... to be received and presented" from among "numerous programming options" ("*a selection identifying at least one of said media feeds*"). EX1004 ¶¶ 46, 49. This selection is received from presentation

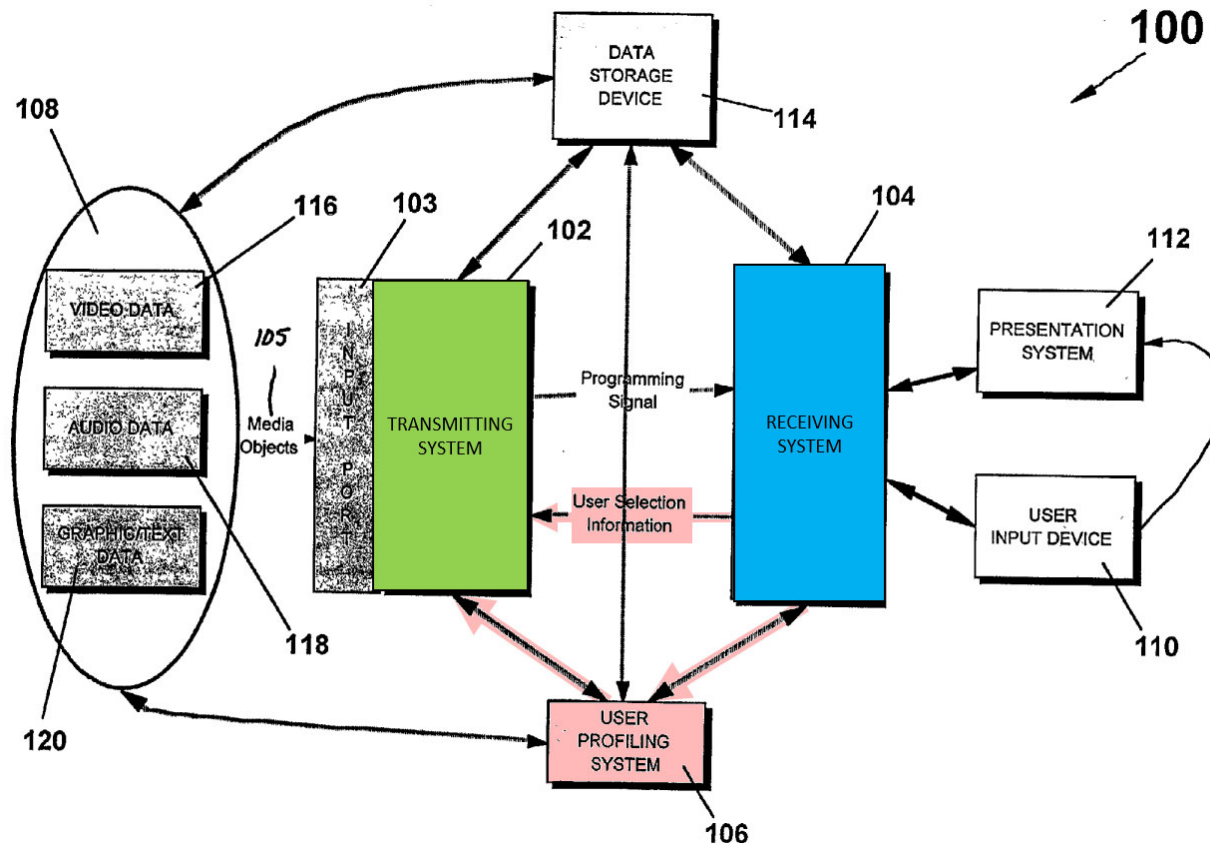
system 112 and user input device 110 (“*client device*”). EX1004 ¶¶ 20, 24, 25, 32; EX1002 ¶¶ 151.

- (e) 1[d]: *providing by the aggregator, to said publisher, an identification of each selected media feed*
- (f) 1[e]: *providing by the aggregator, to said publisher, client information comprising information about the user and information about the associated client device*

For limitation 1[d], Cristofalo discloses that “the user’s choice of programming” (“*selection identifying at least one of said media feeds*”) is provided by Cristofalos’ **receiving system 104** to Cristofalo’s **transmitting system 102**. EX1004 ¶ 46; *see also* EX1004 at Fig. 1 (**receiving system 104** sending “User Selection Information” to **transmitting system 102**). EX1002 ¶ 152.

For limitation 1[e], Cristofalo also discloses that its **receiving system 104** provides information on programs selected by the user and content to receive (“*client information*”) to Cristofalo’s **transmitting system 102**. Specifically, Cristofalo’s **receiving system 104** provides this user profile information (“*client information*”) to user profiling system 106, including programs selected by the user and content received, which in turn is co-located with **transmitting system 102**. EX1004 ¶¶ 37, 39. Ultimately, the user profile information (“*client information*”) is received and analyzed by the **transmitting system 102**. EX1004 ¶¶ 28, 37-39, 47, 53; *see also* Section VII.C.2.f (Marcus ’904 also disclosing analyzing user profile information). EX1002 ¶ 153.

Cristofalo's provision of "user selection information" ("*an identification of each selected media feed*") and user profile information ("*client information*") from receiving system 104 to transmitting system 102 is shown in Cristofalo's Figure 1:



Cristofalo further render obvious that user profiling information contains "*information about the associated client device.*" Cristofalo discloses that its transmitting system 102 transmits media objects that "may be formatted according to various schemes, including , MPEG 1, MPEG-2, MPEG-4, MPEG-7, JPEG, motion JPEG, GIF, QuickTime, ActiveMovie, digital video interactive (DVI),

Indeo, and IP wrapped MPEG-4 for streaming.” EX1004 ¶ 8. Whitehead also discloses that these media objects may be ultimately presented on various different presentation systems 112, including “television receivers, home theater systems, audio systems, computer workstations, lap top computers, personal data assistants, set top boxes, in home communications systems, wireless communication systems (for example, pagers and wireless telephones), web tablets, virtual reality systems, web phones, printers, heads up display, gaming consoles, tactile or sensory perceptible signal generators (for example, a vibration or motion), and various other devices or combinations of devices.” EX1004 ¶ 24. A POSITA would recognize that there is a need to ensure the format of media object transmitted by **transmitting system 102** matches the capabilities of presentation systems 112, e.g., to ensure **transmitting system 102** does not encode media objects using a format not supported by or sub-optimal for presentation system 112 (e.g., transmitting low quality MPEG-1 video to a home theater system capable of playing high definition videos). EX1002 ¶¶ 154-155.

The obvious solution is to have **receiving system 104** provide to **transmitting system 102** (e.g., via existing user profiling system 106) information regarding the capabilities of presentation system 112, since **receiving system 104** is in direct communication with presentation system 112 (“*information about the associated client device*”), whereas **transmitting system 102** is not. EX1004 at Fig. 1.

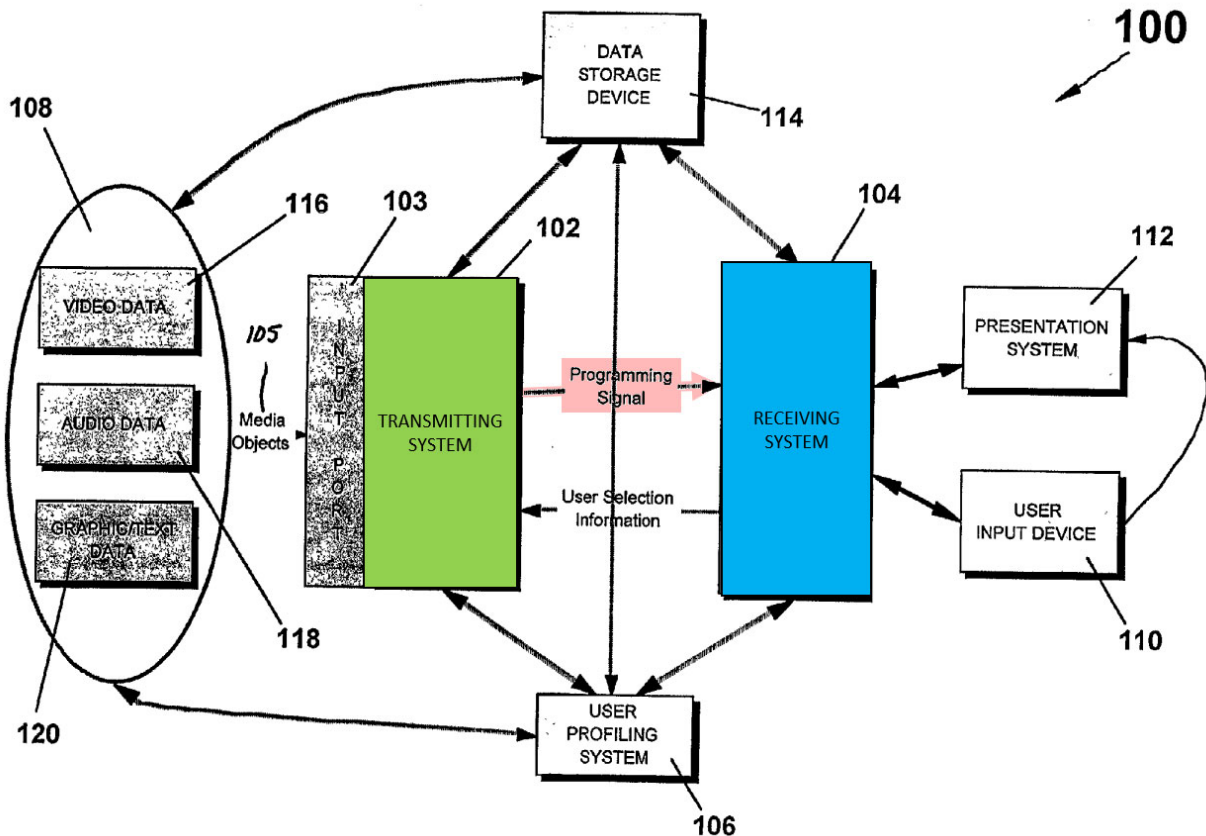
Including such information in Cristofalo's profile information would allow **transmitting system 102** to better cater the media programming to the user's needs while improving efficiency by not exceeding those needs. For example, knowing what formats are supported by the client device would allow **transmitting system 102** to ensure it does not transmit media programming in an unsupported format. As another example, knowing the client device's maximum supported video resolution and frame rate would allow **transmitting system 102** to transmit media programming with the best resolution and frame rate supported by the client device for optimal viewing experience without needing to send multiple, different formats that unnecessarily consume network bandwidth. Plus, a POSITA would understand that there is a reasonable expectation of success in including such device information in Cristofalo's profile information and customizing media programming based thereon, since **transmitting system 102** already supports different transmission formats and its purpose is specifically to customize media channel 170. EX1004 ¶¶ 8, 9, 19, 22, 34, 38, 47-48, 54; EX1002 ¶ 156.

To the extent PO argues that this limitation requires the **publisher** to receive the client information directly from the **aggregator** or that the **publisher** itself may track this client information, it would have been obvious to implement user profiling system 106 as part of **transmitting system 102**, and **transmitting system 102** would maintain the user profile information ("**client information**") collected from

receiving system 104. Cristofalo already recognizes that user profiling system 106 “is preferably co-located with the **transmitting system 102**.” EX1004 ¶ 37. Further integrating profiling system 106 into **transmitting system 102** would simplify processing and communications, since it would eliminate the need for a separate user profiling system 106 or transmitting user profile information over the network every time the user requests programming; EX1002 ¶ 157.

- (g) **1[f] initiating, by the aggregator, for display at the client device, individual customized media programming comprising media elements selected from one or more libraries in communication with said publisher, wherein the selected media elements (i) correspond to at least one selected media feed and are responsive to said user information, and 1[i] (ii) are ordered and concatenated at least in part according to each selected media feed and said user information.**

In response to **receiving system 104** transmitting user selection information (“*initiating, by the aggregator*”) the **transmitting system 102** generates media programming consisting of media objects based on the user’s choice and user profile information (“*individual customized media programming comprising media elements*”) and provides that media programming to the user (“*for display at the client device*”). EX1004 ¶¶ 9, 19, 22, 34, 38, 47-48, 54; *see also* EX1004 at FIG. 1 (“programming signal”). EX1002 ¶ 158.



Cristofalo discloses that the **transmitting system 102** generates media programming (“*individual customized media programming comprising media elements*”) based on the desired program selected by the user (“*correspond to at least one selected media feed*”) and user profile information (“*responsive to said user information*”). EX1004 ¶¶ 9, 19, 22, 32, 17, 34, 38, 47-48, 54; EX1002 ¶ 159.

Marcus ’904 addresses the lack of detail in Cristofalo regarding targeting by **transmitting system 102** by describing a receiver 100 that “collects media” from different “media source[s]” and “assembles a program from the collected media.” EX1005 ¶ 30. Specifically, Marcus ’904’s receiver “selects media elements from the

media streams for inclusion in the programming based upon the user data,” “arranges the selected data elements into an order based upon the user data,” and concatenates the result, all based on user data (“***ordered and concatenated at least in part according to each selected media feed and said user information***”). EX1005 ¶ 40, 48, 87, 148-49, 237, 307. The media elements include both a “primary” stream desired by the user (“***selected media feed***”) and additional media elements, such as advertising or other programming. EX1005 ¶ 37-42, 48, 148, 252, 275, 307; EX1002 ¶ 160.

Marcus '904 further incorporates by reference Marcus '156, which provides additional details regarding the selection, ordering, and concatenating of media elements into media programming for a particular user. EX1005 ¶ 30; EX1008 at 8:1-9:21 (describing “Editor Program” that “selects and orders” clips), 9:22-10:8 (describing “Assembly Program”). The '261 patent relies on incorporating by reference that same Marcus '156 prior art reference for the exact same disclosure. EX1001 at 1:24-29, 5:45-52, 9:23-33, 9:48-52, 10:17-19. Thus, Marcus '904, at least via its incorporation of Marcus '156, discloses the very same “***ordered and concatenated at least in part according to . . . user information***” described and claimed in the '261 patent; EX1002 ¶ 161.

3. Claim 2:

- (a) 2[a]: *The method according to claim 1, further comprising the steps of collecting by the aggregator, from the client device, user information comprising information about an identified user, and*

Cristofalo discloses that its **receiving system 104** collects information regarding user interactions with presentation system 112 and user input device 110 (“*client device associated with a user*”) to select programs and receive content (“*information about the user*”). EX1004 ¶¶ 25, 32, 34, 37, 39, 49, 52, Fig. 1; EX1002 ¶ 162.

- (b) 2[b]: *selecting media elements comprising said individual customized media programming according to parameters and instructions for assembling media programming based on the collected user information.*

Marcus ’904 (which incorporates by reference Marcus ’156) discloses that the selection and assembly of media elements for a particular user (“*selecting media elements comprising said individual customized media programming*” and “*assembling media programming based on the collected user information*”) is done via templates that include “*parameters*” and “*instructions.*” EX1005 ¶¶ 30, 37-42, 48, 139, 148-149, 151, 666, 676-683, 690; *see also* Section VII.C.2.g; EX1002 ¶ 163.

Marcus ’904 further incorporates by reference Marcus ’156, which provides additional details regarding the selection, ordering, and assembly of media elements into media programming for a particular user. EX1005 ¶ 30; EX1008 at 8:1-9:21

(describing “Editor Program” that “selects and orders” clips), 9:22-10:8 (describing “Assembly Program”). The ’261 patent relies on incorporating by reference that same Marcus ’156 prior art reference for the exact same disclosure. EX1001 at 1:24-29, 5:45-52, 9:23-33, 9:48-52, 10:17-19. Thus, Marcus ’904, at least via its incorporation of Marcus ’156, discloses the very same “*parameters and instructions for assembling media programming*” described and claimed in the ’261 patent. EX1002 ¶ 164.

4. **Claim 3:** *The method according to claim 2, wherein the parameters and instructions are embodied in one or more templates, each template comprises a plurality of rules associated with said tags of said tagged media elements, and each template is associated with a selected library or a selected media feed.*

Marcus ’904 includes extensive disclosure of using a “*template*” to generate the media programming. EX1005 ¶¶ 39-40, 139, 151, 666, 676-683, 690; EX1008 at 3:66-4:21, 8:2-9:21; EX1002 ¶ 165.

In addition, Marcus ’904 discloses that its “templates” dictate how media elements are processed based on tags and thus include “*a plurality of rules associated with said tags of said tagged media elements.*” For example, Marcus ’904 discloses that its “tags” (“*said tags of said tagged media elements*”) are “associated with the media elements and a template” (“*a plurality of rules*”) EX1005 ¶ 39-40. Marcus ’904’s “templates” are also associated with “*a selected library or a selected media feed*” at least because they are used to assemble the desired

programming and advertising or other programming elements into Marcus '904's custom media programming. EX1005 ¶¶ 37-40, 48; EX1002 ¶ 166.

5. Claim 4: *The method according to claim 3, wherein the template is processed according to at least one rule for selection and sequencing of tagged media elements according to collected user information.*

Marcus '904 discloses that its “templates” are used by Marcus '904's receiver software to select, order, and assemble media programming for a particular user (“*at least one rule for selection and sequencing of tagged media elements according to collected user information*”). EX1005 ¶¶ 30, 37-42, 48, 139, 148-149, 151, 666, 676-683, 690; *see also* Section VII.C.2.g, VII.C.3-4; EX1002 ¶ 167.

Marcus '904 further incorporates by reference Marcus '156, which provides additional details regarding the selection, ordering, and assembly of media elements into media programming for a particular user. EX1005 ¶ 30; EX1008 at 8:1-9:21 (describing “Editor Program” that “selects and orders” clips), 9:22-10:8 (describing “Assembly Program”). The '261 patent relies on incorporating by reference that same Marcus '156 prior art reference for the exact same disclosure. EX1001 at 1:24-29, 5:45-52, 9:23-33, 9:48-52, 10:17-19. Thus, Marcus '904, at least via its incorporation of Marcus '156, discloses the very same “*at least one rule for selection and sequencing of tagged media elements according to collected user information*” described and claimed in the '261 patent. EX1002 ¶ 168.

6. **Claim 5:** *The method according to claim 1, wherein a first feed responsive to the selection of one of the feeds is furnished during a first time period and a second feed comprising the individual customized media programming is furnished during a second time period.*

In the proposed combination of Cristofalo and Marcus '904, the generated media programming consists of a desired program selected by the user from available media programming (“*first feed*”) and other data elements inserted in response to the user profile information (“*individual customized media programming*”). See Section VII.C.2.f. In this combination, the desired program plays initially (“*during a first time period*”), and the other media elements only play once they are reached (“*a second time period*”). EX1002 ¶ 169.

7. **Claim 6:** *The method according to claim 1, wherein the user information comprises a user profile.*

The “*user information*” in both Cristofalo and Marcus '904 comprises a “*user profile*”—indeed, both references use those exact words. EX1004 ¶ 39 (“The user profiling system 106 may be a stand-alone system, an Internet based system, or any other system **capable of generating user profiles** based upon user viewing habits (or listening habits-in the case of an audio program) and/or purchasing behavior.”); EX1005 ¶¶ 137, 304, 325 (discussing “**user profiles**”); see also Section VII.C.1.e; EX1002 ¶ 170.

8. Claim 7: *The method according to claim 1, wherein the user information comprises user preference data.*

Marcus '904 discloses that “*user profile information*” includes user “preferences” (“*preference data*”). EX1005 ¶¶ 97, 140, 157, 169, 335, 602, 669, 680; EX1008 at 10:9-20 (describing “Viewer Database” with “a file of preference information for the viewer”). EX1002 ¶ 171.

9. Claim 8: *The method according to claim 1, wherein the media programming comprises multiple streams of media elements.*

In the proposed obviousness combination, the programming provided to the user consists of (1) a desired media stream, such as a particular channel (a first “*stream of media elements*”) and (2) advertising or other programming from other streams (a second “*stream of media elements*”) which collectively are “*multiple streams of media elements.*” EX1005 ¶¶ 30, 34, 39-40, 48-49, 252, 275.; *see also* Section VII.C.2.b. EX1002 ¶ 172.

10. Claim 9: *The method according to claim 8, wherein portions of the multiple streams are concatenated according to user information.*

Marcus '904 discloses receiver 100 that receives “a plurality of tagged media streams” and “assembles the tagged media into programming.” EX1005 ¶¶ 30, 34, 39-40, 48-49. Marcus '904 further discloses that this is done by “contatenat[ing]” the received assets. EX1005 ¶¶ 87, 237, 287; EX1008 at 14:13-17; EX1002 ¶ 173.

11. Claim 10: *The method according to claim 1, wherein the media elements comprise transitions, and the media elements are dynamically positioned, temporally or spatially, within the context of the media programming.*

Marcus '904 discloses that advertisements and content ("*media elements*") are included in the media programming in response to a user request ("*dynamically*") and in a specific temporal order ("*positioned, temporally or spatially, within the context of the media programming*"). EX1005 ¶¶ 30, 34, 37-42, 48, 148-49, 252, 275; EX1002 ¶ 174.

Marcus '904 further incorporates by reference Marcus '156, which provides additional details regarding the positioning of media elements into media programming for a particular user. EX1005 ¶ 30; EX1008 at 8:1-9:21 (describing "Editor Program" that "selects and orders" clips), 13:1-40 (creating templates for this ordering "dynamically"). The '261 patent relies on incorporating by reference that same Marcus '156 prior art reference for the exact same disclosure. EX1001 at 1:24-29, 5:45-52, 9:23-33, 9:48-52, 10:17-19. Thus, Marcus '904, at least via its incorporation of Marcus '156, discloses the very same "*media elements are dynamically positioned, temporally or spatially, within the context of the media programming*" described and claimed in the '261 patent. EX1002 ¶ 175.

In addition, Marcus '904 (and Marcus '156 incorporated therein) also disclose that these media elements can include "*transitions*," either as free-standing "[s]hort transitional elements" or by modifying parts of other "media elements" to include,

e.g., “slow dissolves.” EX1005 ¶¶ 86, 191, 287, 309, 646, 649, 663; *see also* EX1008 at 2:29-31, 4:28-29; 4:34-38, 8:33-35, 8:51-56, 14:13-17; 14:43-45; EX1002 ¶ 176.

D. Secondary Considerations

Secondary considerations only further weigh in favor of obviousness, and in any event cannot overcome the strong showing of obviousness. First, market trends incentivized development work into generating custom media programming for specific users and resulted in simultaneous development by multiple entities. *See* Section IV.A-B. Second, PO alleges in its complaint that its product, “StimTV” launched in 2005 and won an award in 2007. EX1011 ¶ 12. But significantly, PO does not allege that this product practiced the ’261 patent. Indeed, if it did, StimTV was allegedly released more than a year before the ’261 patent’s effective filing date and would thus constitute invalidating prior art. Thus, PO seemingly never deemed the ’261 patent sufficiently valuable/innovative to practice its claims. And even if PO eventually did release a product practicing the ’261 patent, PO ceased operations at some point in time, evidencing a lack of success for any product practicing the ’261 patent. EX1002 ¶ 177.

VIII. NO BASIS FOR DISCRETIONARY DENIAL

A. 35 U.S.C. § 325(d) Supports Institution

The Board should not exercise its discretion under § 325(d). None of the prior art relied upon in this Petition was considered by the examiner. EX1001 at 1. Indeed, PO did not even disclose its own Marcus ’904 prior art reference to the patent office.

In addition, the art cited in this Petition is not cumulative of the art considered by the Examiner. During prosecution, the examiner allowed the '261 patent claims without any rejections. EX1018 at 71-79. In contrast, Petitioner's Grounds 1-3 demonstrate that the '261 patent claims are invalid.

B. *Fintiv* Supports Institution

District court litigation has not commenced in earnest. Petitioners are filing this IPR petition a month before their answer is due. The six *Fintiv* factors thus strongly favor institution.

1. Overlap Between Issues

While PO has not yet identified the set of asserted claims, this Petition challenges all '261 patent claims. Accordingly, no matter what claims PO asserts in district court, all those claims will also be at issue here. On the other hand, Petitioner has not yet served their invalidity contentions. Thus, there is no basis for concluding that there is substantive overlap in invalidity theories.

2. Likelihood of a Stay

Neither party has requested a stay in the district court in part because the district court case is not yet underway. The likelihood of a stay is increased here, however, by the fact that Petitioners are filing this IPR petition before answering the complaint and are filing concurrent IPR petitions against all asserted patents.

3. Proximity of the Court’s Trial Date to a FWD

No trial date has been set. Indeed, no case schedule of any kind has been entered, nor has a Rule 26(f) conference been held. At Judge Gilstrap’s most-recent, July 2024 scheduling conferences, the Court assigned trial dates from January to April 2026. *See, e.g., Avant Location Techs., LLC v. Samsung Elec. Co. Ltd.*, No. 2:24-cv-00133-JRC , Dkt. 36 (E.D. Tex. Aug. 5, 2024); *Alto Dynamics, LLC v. Gucci Am., Inc.*, No. 2:24-cv-00375, Dkt. 29 (E.D. Tex. Aug. 2, 2024). This case is scheduled for a case management conference on September 18, 2024. *NTECH Properties, Inc. v. ByteDance Ltd.*, No. 2:24-cv-00130-JRG, Dkt. 13 (E.D. Tex. Aug. 8, 2024). By then, Judge Gilstrap will presumptively be assigning trial dates starting in May 2026. If that is the case, then the PTAB will issue its final written decision *before* any district court trial.

4. Investment in the Parallel Proceeding

Although PO filed a district court complaint on February 23, 2024, investment in the parallel proceeding has been nonexistent. PO did not serve the complaint until June 14, 2024. The parties then stipulated to an answer deadline of September 16, 2024. There have been no other case developments and no discovery. The district court has also invested zero time in assessing the parties’ claims and defenses.

Moreover, Petitioner is filing this IPR a mere two months after being served with the complaint—almost 10 months before its statutory bar date (June 14, 2025).

5. Whether the Petitioner and the Defendant in the Parallel Proceeding are the Same Party

The parties are the same in this IPR and in the Litigation.

6. Other Circumstances, that Impact the Board's Exercise of Discretion, Including the Merits

This is the Board's opportunity to reassess a facially invalid patent that would not have issued but for the limited prior art before the Examiner, including PO's failure to disclose its own '904 Marcus prior art reference during prosecution. The merits of the Petition are particularly strong and outweigh any countervailing considerations of efficiency.

IX. CONCLUSION

For the reasons above, *inter partes* review is requested.

Date: August 23, 2024

Respectfully submitted,

By: /s/ James M. Glass
James M. Glass

Counsel for Petitioner

CERTIFICATION UNDER 37 C.F.R. § 42.24

Under the provisions of 37 C.F.R. § 42.24, the undersigned hereby certifies that the word count for the foregoing Petition for *inter partes* review (excluding the table of contents, table of authorities, mandatory notices, certificate of service or word count, and appendix of exhibits or claim listing) totals 12,503 words, which is within the word limit allowed under 37 C.F.R. § 42.24(a)(i).

Date: August 23, 2024

/s/ James Glass

James Glass (Reg. No. 46729)

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e), 42.105(a), the undersigned hereby certifies service on the PO of a copy of this Petition and its respective exhibits at the official correspondence address for the attorneys of record for the '261 patent as shown in USPTO PAIR via FedEx:

Louis DelJuidice
Troutman Pepper Hamilton Sanders LLP
600 Peachtree St. NE, Suite 3000
Atlanta, GA

Courtesy copies were also sent via electronic mail to Patent Owner's counsel of record in the related district court proceeding:

Elizabeth L. DeRieux
ederieux@capshawlaw.com
Capshaw DeRieux LLP
114 E. Commerce St.
Gladewater, TX 75647

Paul J. Andre
pandrew@kramerlevin.com
Lisa Kobialka
lkobialka@kramerlevin.com
James Hannah
jhannah@kramerlevin.com
Kris Kastens
kkastens@kramerlevin.com
Kramer Levin Naftalis & Frankel LLP
333 Twin Dolphin Drive
Redwood City, CA 94065

Date: August 23, 2024

/s/ James Glass

James Glass (Reg. No. 46729)