

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROKU, INC.,
Petitioner

v.

MEDIA CHAIN, LLC,
Patent Owner

Case IPR2022-00390
U.S. Patent 9,898,590

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 9,898,590**

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PETITIONER’S EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 9,898,590 (“’590 patent”)
1002	Declaration of John Tinsman in Support of Petition for <i>Inter Partes</i> Review of U.S. Patent No. 9,898,590
1003	U.S. Patent Publication No. 2004/0010417 to Peled (“Peled”)
1004	U.S. Patent Publication No. 2011/0191246 to Brandstetter <i>et al.</i> (“Brandstetter”)
1005	U.S. Patent Publication No. 2005/0004873 to Pou <i>et al.</i> (“Pou”)
1006	U.S. Patent Publication No. 2008/0140433 to Levy <i>et al.</i> (“Levy”)
1007	U.S. Patent No. 7,818,261 to Weiskopf <i>et al.</i> (“Weiskopf”)
1008	U.S. Patent Publication No. 2013/0166921 to Vijay <i>et al.</i> (“Vijay”)
1009	Prosecution History of U.S. Patent No. 9,715,581 (“’581 Prosecution History”)
1010	Prosecution History of U.S. Patent No. 9,898,590 (“’590 Prosecution History”)
1011	Prosecution History of U.S. Patent No. 10,489,560 (“’560 Prosecution History”)
1012	Prosecution History of U.S. Patent No. 10,515,191 (“’191 Prosecution History”)
1013	Prosecution History of U.S. Patent No. 10,860,691 (“’691 Prosecution History”)
1014	Prosecution History of U.S. Patent No. 10,885,154 (“’154 Prosecution History”)
1015	<i>Curriculum Vitae</i> of John Tinsman
1016	U.S. Patent No. 7,043,473 to Rassool <i>et al.</i> (“Rassool”)

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Exhibit No.	Description
1017	Mary Madden, The State of Music Online: Ten Years After Napster, Pew Research Center (June 15, 2009) (https://www.pewresearch.org/internet/2009/06/15/the-state-of-music-online-ten-years-after-napster/)
1018	U.S. Patent No. 8,185,475 to Hug (“Hug”)
1019	U.S. Patent No. 8,051,130 to Logan (“Logan”)
1020	“Digital Rights Management,” FTC.org (March 25, 2009) (https://www.ftc.gov/news-events/events-calendar/2009/03/digital-rights-management)
1021	U.S. Patent No. 8,776,216 to Boccon-Gibod <i>et al.</i> (“Boccon-Gibod”)
1022	Urs Gasser <i>et al.</i> , “Case Study: DRM-protected Music Interoperability and e-Innovation,” Harvard.edu (November 2007) (https://dash.harvard.edu/bitstream/handle/1/2794938/DRM-protected+Music+Interoperability+and+eInnovation.pdf;jsessionid=FE C1E2A0F87ABB7EB30E41EA93AC1CAC?sequence=2)
1023	<i>Intentionally Left Blank</i>
1024	<i>Intentionally Left Blank</i>
1025	<i>Intentionally Left Blank</i>
1026	<i>Intentionally Left Blank</i>
1027	U.S. Patent Publication No. 2011/0314378 A1 to Nijim <i>et al.</i> (“Nijim”)
1028	“Apple TV Coming to Your Living Room,” Apple.com (January 9, 2007) (https://www.apple.com/newsroom/2007/01/09Apple-TV-Coming-to-Your-Living-Room/)
1029	Jaap Haitsma, <i>et al.</i> , “A Highly Robust Audio Fingerprinting System,” 3rd International Conference on Music Information Retrieval, Paris, France, October 13-17, 2002 (“Haitsma”)
1030	U.S. Patent No. 9,554,176 to Gharaat <i>et al.</i> (“Gharaat”)

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Exhibit No.	Description
1031	Alex Pappademas, “Mood music for the cyber set,” CNN.com, archived December 7, 2004 (https://web.archive.org/web/20041207191754/http://archives.cnn.com/2000/TECH/computing/09/08/mood.music.idg/index.html)
1032	U.S. Patent No. 8,306,976 to Handman <i>et al.</i> (“Handman”)
1033	U.S. Patent Publication No. 2006/0206478 to Glaser <i>et al.</i> (“Glaser”)
1034	U.S. Patent No. 7,081,579 to Alcade <i>et al.</i> (“Alcade”)
1035	Avery Li-Chun Wang, “An Industrial-Strength Audio Search Algorithm,” 4th International Conference on Music Information Retrieval, Baltimore, Maryland, USA, October 27-30, 2003.
1036	Bryan Jacobs, “How Shazam Works To Identify (Nearly) Every Song You Throw At It,” Gizmodo.com (September 24, 2010) https://gizmodo.com/how-shazam-works-to-identify-nearly-every-song-you-th-5647458
1037	European Patent Application Publication No. 1,558,032 to Widevine Technologies, Inc.
1038	U.S. Patent Publication No. 2013/0051772 to Ramaswamy <i>et al.</i> (“Ramaswamy”)
1039	U.S. Patent No. 5,223,924 to Strubbe <i>et al.</i> (“Strubbe924”)
1040	U.S. Patent Publication No. 2001/0056405 to Muyres <i>et al.</i> (“Muyres”)
1041	U.S. Patent No. 7,603,382 to Halt, Jr. (“Halt”)
1042	U.S. Patent No. 10,447,564 to Abraham <i>et al.</i> (“Abraham”)
1043	U.S. Patent No. 8,583,089 to Ramer <i>et al.</i> (“Ramer”)
1044	Laurie J. Flynn, “Like This? You’ll Hate That. (Not All Web Recommendations Are Welcome.),” NYTIMES.com (January 23, 2006) (https://www.nytimes.com/2006/01/23/technology/like-this-youll-hate-that-not-all-web-recommendations-are.html)

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Exhibit No.	Description
1045	<i>Intentionally Left Blank</i>
1046	U.S. Patent Publication No. 2012/0233701 to Kidron (“Kidron”)
1047	U.S. Patent No. 6,317,722 to Jacobi <i>et al.</i> (“Jacobi”)
1048	U.S. Patent No. 8,352,331 to Dunning <i>et al.</i> (“Dunning”)
1049	U.S. Patent Publication No. 2003/0086341 to Wells <i>et al.</i> (“Wells”)
1050	U.S. Patent No. 7,178,720 to Strubbe <i>et al.</i> (“Strubbe”)
1051	“Technological Protection Systems for Digitized Copyrighted Works: A Report to Congress,” United States Patent and Trademark Office, 2002
1052	<i>Intentionally Left Blank</i>
1053	<i>Intentionally Left Blank</i>
1054	<i>Intentionally Left Blank</i>
1055	Adrian Slywotzky, <i>et al.</i> , “The Future of Commerce,” Harvard Business Review, January-February 2000 (https://hbr.org/2000/01/the-future-of-commerce)
1056	Benno Stein, <i>et al.</i> , “Near Similarity Search and Plagiarism Analysis,” 29 th Annual Conference of the German Classification Society (GfKI), Magdeburg, Germany, 2006
1057	Chow Kok Kent, <i>et al.</i> , “Features Based Text Similarity Detection,” Journal of Computing, Vol. 2, Issue 1, January 2010
1058	Benjamin Cohen, “How can publishers limit e-book piracy?”, Channel 4 News, October 18, 2009 (https://www.channel4.com/news/articles/arts_entertainment/books/how%2Bcan%2Bpublishers%2Blimit%2Bebook%2Bpiracy/3391502.html)
1059	<i>Intentionally Left Blank</i>

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Exhibit No.	Description
1060	Eric A. Robinson, "Digital Rights Management, Fair Use, and Privacy: Problems for Copyright Enforcement through Technology," University of St. Augustine, December 2009 (https://orcid.org/0000-0001-9554-8754)
1061	U.S. Patent Publication No. 2012/0020647 to Vogel ("Vogel")
1062	<i>Intentionally Left Blank</i>
1063	<i>Intentionally Left Blank</i>
1064	Complaint, <i>Media Chain LLC v. Roku, Inc.</i> , WDTX-1-21-cv-00027 ("Complaint")
1065	Order on Motion to Transfer, <i>Media Chain LLC v. Roku, Inc.</i> , WDTX-1-21-cv-00027 ("Motion to Transfer Order")
1066	Scheduling Order, <i>Media Chain LLC v. Roku, Inc.</i> , WDTX-1-21-cv-00027 ("Scheduling Order")
1067	<i>Intentionally Left Blank</i>
1068	U.S. Patent No. 7,577,703 to Boucher <i>et al.</i> ("Boucher")
1069	Affidavit of Service, <i>Media Chain, LLC v. Roku, Inc.</i> , Case No. 1:21-cv-00027-LY (W.D. Tex.), filed January 26, 2021.
1070	Plaintiff's Response, <i>Media Chain LLC v. Roku, Inc.</i> , WDTX-1-21-cv-00027
1071	Case Management Conference Order in Reassigned Case, <i>Media Chain, LLC v. Roku, Inc.</i> , Case No. 1:21-cv-00027-EMC (N.D. Cal.), filed December 22, 2021.
1072	U.S. Patent No. 9,715,581 to Estes ("581 Patent")
1073	<i>Intentionally Left Blank</i>
1074	U.S. Patent No. 10,489,560 to Estes ("560 Patent")
1075	U.S. Patent No. 10,515,191 to Estes ("191 Patent")
1076	U.S. Patent No. 10,860,691 to Estes ("691 Patent")
1077	U.S. Patent No. 10,885,154 to Estes ("154 Patent")

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Exhibit No.	Description
1078	<i>Intentionally Left Blank</i>
1079	<i>Intentionally Left Blank</i>
1080	California Northern District Time to Milestones, Docket Navigator, accessed January 4, 2022.

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Roku, Inc. petitions for *inter partes* review (IPR) of claims 1-23 of U.S.

Patent No. 9,898,590 to Estes, “Digital Media Reproduction and Licensing.”

EX1001, ’590 patent, Title.

I. INTRODUCTION

The ’590 patent purportedly improves the tracking of user demographic data when a user acquires or declines to acquire a license to digital media content.

EX1001, 11:58-12:20; EX1010, 77-85. Specifically, the claims of the ’590 patent are directed to a licensing system that determines whether a user has already acquired a license to reproduce desired content. EX1001, 9:28-41. If not, the user is offered a content license. *Id.* When the user acquires or declines the license, the licensing system records demographic data corresponding to the user. *Id.*, 5:25-33, 7:57-8:3, 11:58-12:20. The licensing system then provides a summary of these statistics to copyright owners, so that the copyright owners can gauge user demographics and target marketing accordingly. *Id.*, 11:58-12:20.

Unfortunately for Patent Owner (PO), tracking user demographic data in response to acquiring or declining a media license was both trivial and already disclosed by several prior art references, including at least U.S. Patent Publication Nos. 2004/0010417 (EX1003, “Peled”), 2011/0191246 (EX1004, “Brandstetter”), 2005/0004873 (EX1005, “Pou”), and 2008/0140433 (EX1006, “Levy”). These references illustrate that offering media licenses and tracking user responses and

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demographic data were well-known techniques, and would have been obvious to a person of ordinary skill in the art. *Id.* This Petition demonstrates the unpatentability of all claims of the '590 patent.

II. IDENTIFICATION OF UNPATENTABILITY GROUNDS

Ground	Prior Art	Basis	Claims Challenged
1	Peled (EX1003) and Pou (EX1005)	35 U.S.C. § 103	1-4, 6-10, 12-16, 19-21, and 23
2	Peled, Pou, and Brandstetter (EX1004)	35 U.S.C. § 103	18
3	Peled, Pou, and Vijay (EX1008)	35 U.S.C. § 103	5, 11, 17, and 22
4	Brandstetter and Levy (EX1006)	35 U.S.C. § 103	1-4, 6-10, 12-16, 18-21, and 23
5	Brandstetter, Levy, and Vijay	35 U.S.C. § 103	5, 11, 17, and 22

The alleged earliest priority date of the '590 patent is November 4, 2011.

The references qualify as prior art as follows:

- Peled (EX1003) is prior art under pre-AIA 35 U.S.C. § 102(b) because it was published on January 15, 2004, which is more than one year before November 4, 2011.
- Brandstetter (EX1004) is prior art under pre-AIA 35 U.S.C. § 102(a) because it was published on August 4, 2011, which is before November 4, 2011.
- Pou (EX1005) is prior art under pre-AIA 35 U.S.C. § 102(b) because it was published on January 6, 2005, which is more than one year before November 4, 2011.

- Levy (EX1006) is prior art under pre-AIA 35 U.S.C. § 102(b) because it was published on June 12, 2008, which is more than one year before November 4, 2011.
- Vijay (EX1008) is prior art under pre-AIA 35 U.S.C. § 102(e) because it was filed on May 31, 2011, which is before November 4, 2011.

III. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art (“POSA”) at the time the ’590 patent was filed would have a bachelor’s degree in electrical engineering, computer engineering, computer science, or equivalent degree with at least two years of relevant industry experience, including in digital media content delivery, digital media content protection, and statistical analysis of digital media consumption. EX1002, ¶¶39-41; id., ¶¶1-41, 453-54.

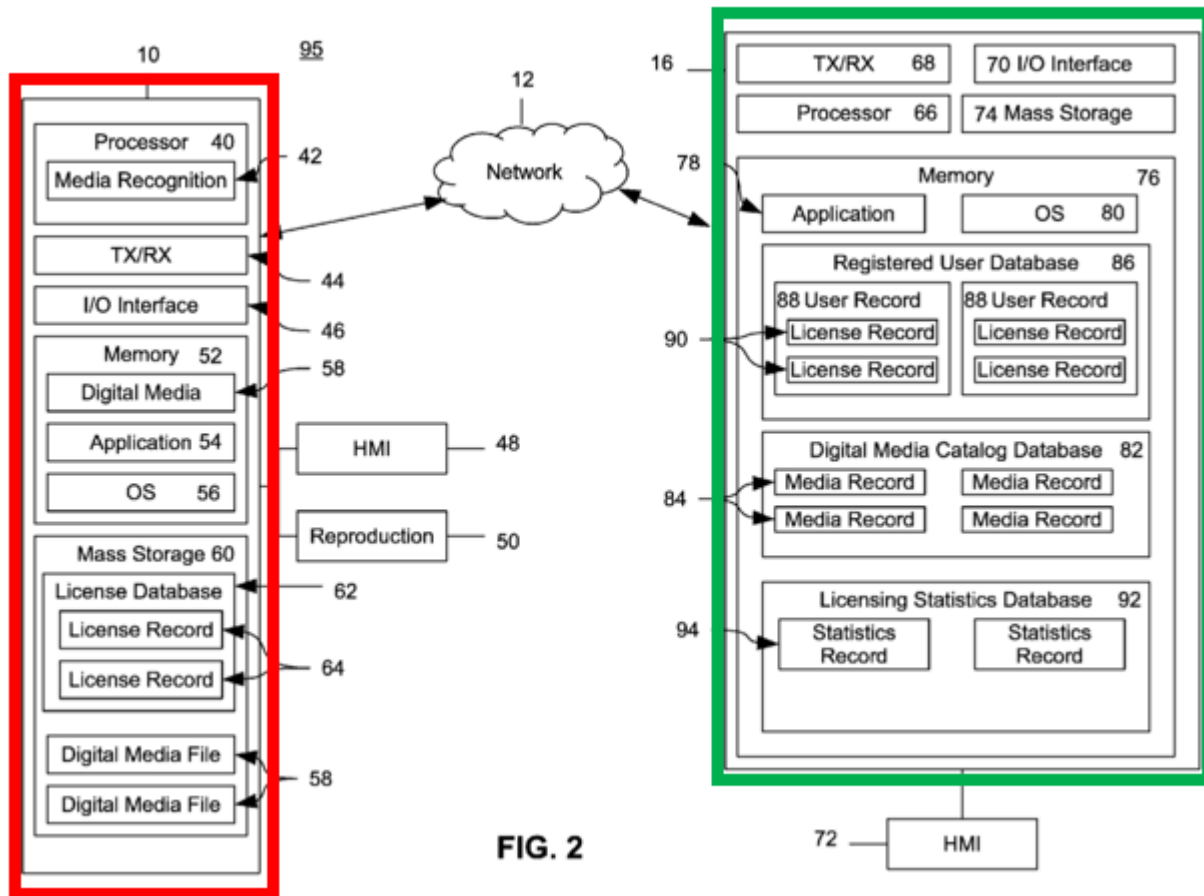
IV. OVERVIEW OF THE ’590 PATENT

The claims of the ’590 patent are generally directed to: (1) licensing and distributing digital media content, and (2) gathering and summarizing user demographic data when a user accepts or declines a license—the alleged point of novelty being found in the second concept (i.e., “*storing demographic data about users that decline a media license*” to inform a marketing analysis. EX1010, 77-85. However, the second concept and the other claimed conventional concepts were well-known in the art. EX1002, ¶¶49-76.

A. Summary of Disclosure

1. Licensing and Distributing Digital Media Content

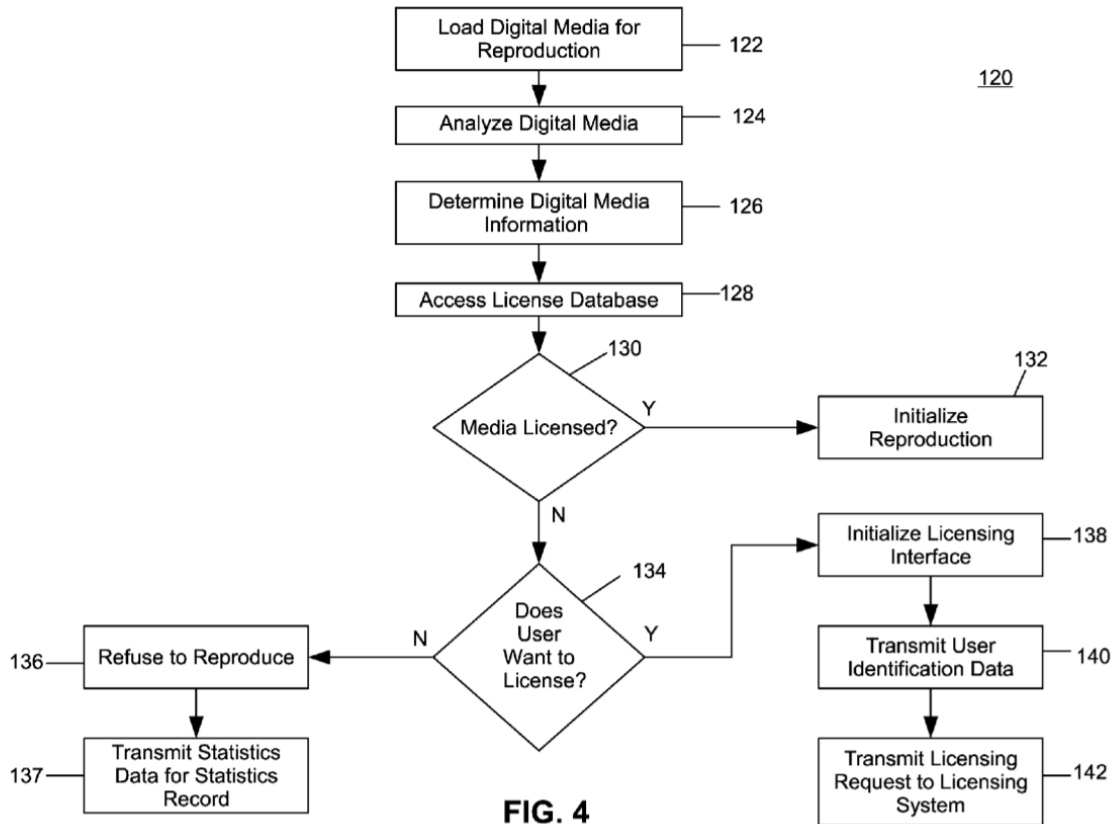
The '590 patent describes a platform for distributing, licensing, and marketing digital media content as shown in Figure 2. EX1001, Abstract, 1:14-17, 1:58-60, 3:30-37, FIG. 2.

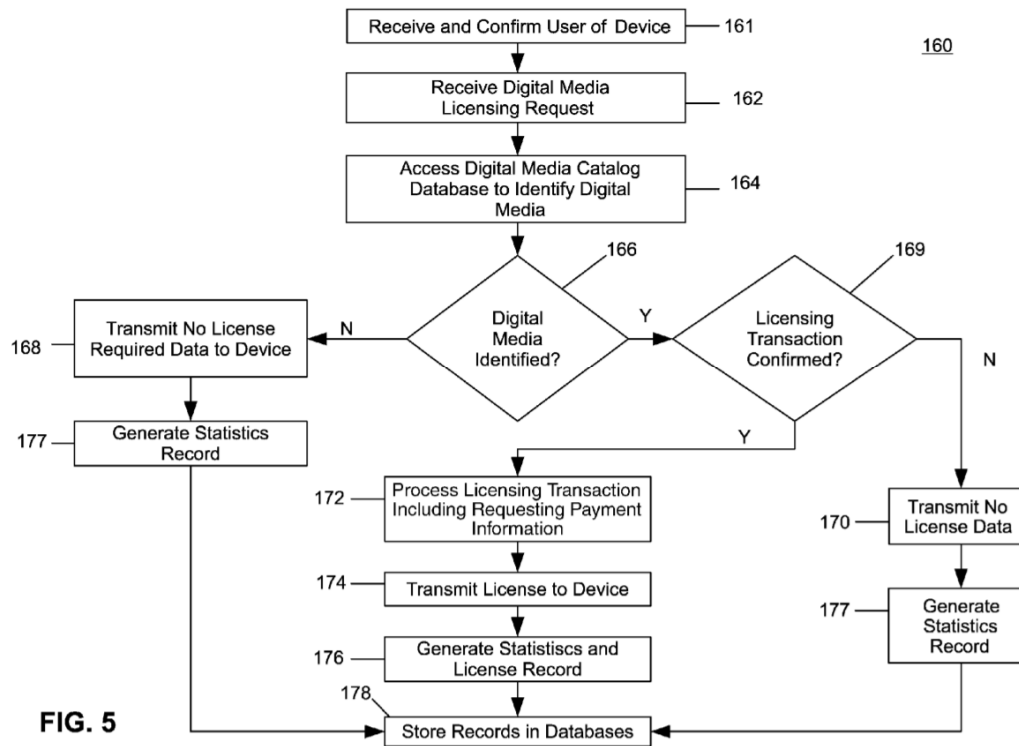


EX1001, FIG. 2 (annotated).

The platform includes a “licensing system 16” (green) and user “device 10” (red). *Id.*, 3:21-29, 3:60-4:2. The '590 patent broadly describes its functionality as

capable of being implemented at any of these devices. *Id.*, 8:4-14, 10:12-16, 11:32-36; EX1002, ¶¶77-90. Figures 4-5 depict this functionality. EX1002, ¶¶82-87.





EX1001, FIGs. 4-5.

“Licensing system 16” is loaded with a “catalog of media content items.”

See EX1001, FIG. 3, 7:35-39, 8:16-51, 13:19-22. The content items are analyzed to determine “identifying characteristics” that are “inherently present.” *Id.*, 4:8-26, 6:51-61, 8:22-45, 8:65-9:5, 9:12-16. This may be a “fingerprint” or “digital watermarking.” *Id.*, 4:26-35, 13:19-22.

A user device then provides a license request. EX1002, ¶¶85-87. The request may occur when the user has loaded a digital media file on user’s device 10. EX1001, 4:8-17. A license database is accessed to determine whether the user has licensed the content. *Id.*, 4:36-39, 9:28-32. If so, the device “initializes reproduction of the digital media file.” *Id.*, 9:32-35. If not, the user receives a

“query” asking whether the user would like to purchase a license. *Id.*, 9:36-41; *see also id.*, 4:39-42. If the user declines, the device denies access to the content. *Id.*, 4:43-57, 9:41-43, 10:2-11:14. If the user accepts, the licensing system permits the user to play or stream the content. *Id.*, 4:43-57, 9:41-43, 10:2-11:14.

2. Targeted Marketing

User demographic data is collected when a user accepts or declines a license and is provided as reports so that content providers can gauge interest and perform targeted marketing. *Id.*, 5:25-33, 7:57-8:3, 9:42-52, 11:7-31, 11:56-12:20; EX1002, ¶¶88-90. Figure 7 depicts this process:

200

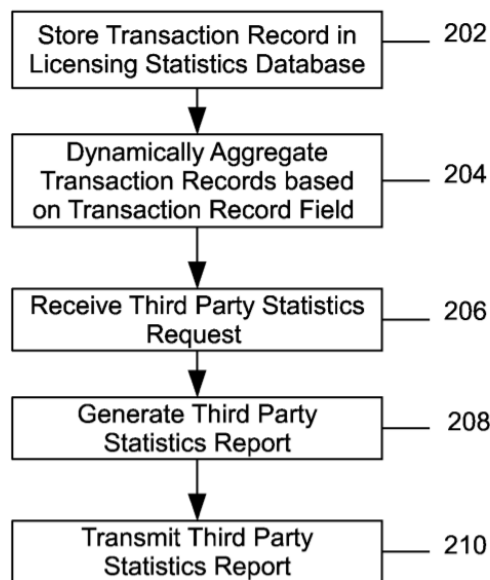


FIG. 7

EX1001, FIG. 7.

B. Prosecution History and Alleged Novelty

During prosecution of the '590 patent's parent, the applicant amended the claims to recite user data being extracted when the user acquires "***or***" declines a license. EX1009, 196. The Examiner found that the prior art taught this limitation, which led the applicant to once again amend the claims, this time to require user data be collected ***both*** when the user acquired "***and***" declines a license. *Id.*, 224-25, 227, 305, 307, 345. In allowing these amended claims, the Examiner found that the prior art does not disclose "***storing demographic data about users that decline a media license*** in order to inform a marketing analysis."¹ *Id.*, 376. The '590 patent, filed years later, was not subject to a single rejection and issued based on the Examiner's similar determination. EX1010, 84. The Examiner was unaware, however, that this feature is disclosed in Brandstetter and Peled as further explained below.

C. The '590 Patent Claims

The '590 patent contains twenty-three claims, four of which (claims 1, 7, 13, and 19) are independent. A Claim Appendix has been included with this Petition identifying the claims and claim elements.

¹ All emphasis added unless otherwise noted.

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Claim 1 recites a method for offering a content license ([1A]-[1B]) and identifying user demographic data when the user accepts or declines ([1C]-[1F]). EX1002, ¶¶91-92. Elements [1A]-[1B] are directed to the first concept: licensing and distributing digital media content, while elements [1C]-[1F] are directed to the second concept: targeted marketing (*i.e.*, gathering and summarizing user demographic data when a user accepts or declines a license). Both concepts were well known in the art and obvious as established by Grounds 1-3 (Peled-Pou grounds) and Grounds 4-5 (Brandstetter-Levy grounds). Sections VI-X; EX1002, ¶¶154-451.

Claim 1 does not explicitly require a single device or system to perform all of its steps. EX1002, ¶¶92-94. Indeed, when Patent Owner (PO) intended to claim a single device, it did so expressly. EX1077, claim 1 (reciting a “multimedia hardware device” performing certain functions). Rather, the context of claim 1 suggests that at least some of its limitations would be practiced by the licensing system, such as “aggregating the user data into a statistics record,” “storing” the record in a license database, and “analyzing a plurality of statistics records.” EX1002, ¶¶92-97; EX1001, FIG. 5, 7:57-8:3, 10:43-58, 11:15-31. Under any interpretation, however, the grounds of unpatentability presented below render claim 1 obvious when occurring at either a user device or a licensing system. EX1002, ¶¶92-97.

D. Other Challenged Patents

Petitioner has filed IPR petitions challenging other patents in the same family. Claim features unique to the individual patents can be found, for example, at ¶¶98-100 of the Declaration of John Tinsman (EX1002).

Each of these patents recite identifying whether the user has accepted or declined an offer, recording user demographic data, and providing a summary of the user demographic data. EX1002, ¶98. Peled and Brandstetter each disclose these common concepts. The '590 patent likewise claims these concepts and recites overlapping limitations as its parent patent (U.S. Patent No. 9,715,581, ('581 patent), EX1072) except that the '590 patent removes several limitations from claim 1 of the '581 patent. Specifically, claim 1 of the '590 patent does not recite the claimed “loading,” “analyzing,” “accessing,” “reproducing,” and “providing” recited in claim 1 of the '581 patent. *See* EX1072, Claim 1.

V. CLAIM CONSTRUCTION

In IPRs, claims are “construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b).” 37 C.F.R. § 42.100(b). Claims must be given their ordinary and customary meaning as understood by one of ordinary skill in the art at the time of the invention in light of the specification and the prosecution history pertaining to the

***Petition for Inter Partes Review of
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patent. *Id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-1313 (Fed. Cir. 2005) (*en banc*); 83 Fed. Reg. 51,340 (Oct. 11, 2018).

In the parallel litigation, PO represented to the court (in response to a still pending motion for judgment on the pleadings) that the “decline” limitation ([1C]) “does *not* require an affirmative act by a user,” and that “a user’s passive interaction with a device, such as navigating or scrolling past an offer to license or stream media content” was sufficient. EX1070, 3. Petitioner disagrees with that broad interpretation as it would unreasonably cover *any* action by the user that is not an affirmative acceptance of a licensing offer. That interpretation renders the word “decline” superfluous in the claims. Further, PO’s interpretation is inconsistent with narrowing amendments made during prosecution. To obtain allowance of the patent claims, PO narrowed their scope to require extracting user data when the user declines a license, and that was the very limitation that the Examiner found was not disclosed in the prior art. *See* Section IV.B. PO cannot now disavow the narrowing amendment that allowed the patent to issue in the first place.

Regardless, under any reasonable interpretation of a user “decline,” the prior art presented here discloses it. EX1002, ¶¶104-48, 156-60, 175, 196-215, 241-242 . Thus, while PO’s interpretation of “decline” in the parallel litigation is wrong, the construction of that term is immaterial to the outcome of this proceeding.

Likewise, no other claim term requires construction—all terms should receive their ordinary and customary meaning in view of the '590 patent specification. EX1002, ¶¶152-53.

VI. GROUND 1: CLAIMS 1-4, 6-10, 12-16, 19-21 AND 23 OF THE '590 PATENT ARE OBVIOUS OVER PELED-POU.

Peled-Pou discloses every element of independent claims 1, 7, 13, and 19, which are materially identical. Peled and Pou both describe facilitating content distribution to aid content creators with monetizing content. Peled discloses the alleged point of novelty (i.e., gathering demographic data when users accept or decline content license offers), while Pou discloses many of the claimed conventional license distribution and content identification techniques. EX1002, ¶¶154-273.

A. Overview of Peled

Peled discloses a system for marketing and distributing digital content over the Internet. EX1003, Abstract, ¶¶1-2, 3, 7, 155; EX1002, ¶¶104-16. Peled also “provides the ability to study online requests for content”—and most importantly, “*online requests that do not result in a sale.*” See EX1003, ¶¶155, 168-69, 175-78, 186, 196-97. Peled provides content providers with user data and “statistical information,” so that they can understand the reason for refusal. *Id.*, ¶¶176-77. Peled also tracks demographic data related to the user and groups of users. *Id.*, ¶169. Peled compiles this demographic data and generates “reports to individual

content providers” or distributors. *Id.*, ¶¶168, 183, 199. These reports may be used to focus marketing efforts. *Id.*, ¶200; *see also id.*, ¶¶9, 157, 196. Therefore, just like the ’590 patent, Peled describes gathering user demographic data when an offer for content has been accepted or declined. EX1002, ¶¶106-08.

B. Overview of Pou

Pou describes “digital rights management” and “facilitating authorized licensing and distribution of digital media,” such as music, movies, and e-books. EX1005, Abstract, ¶¶2, 8, 42; EX1002, ¶¶130-36.

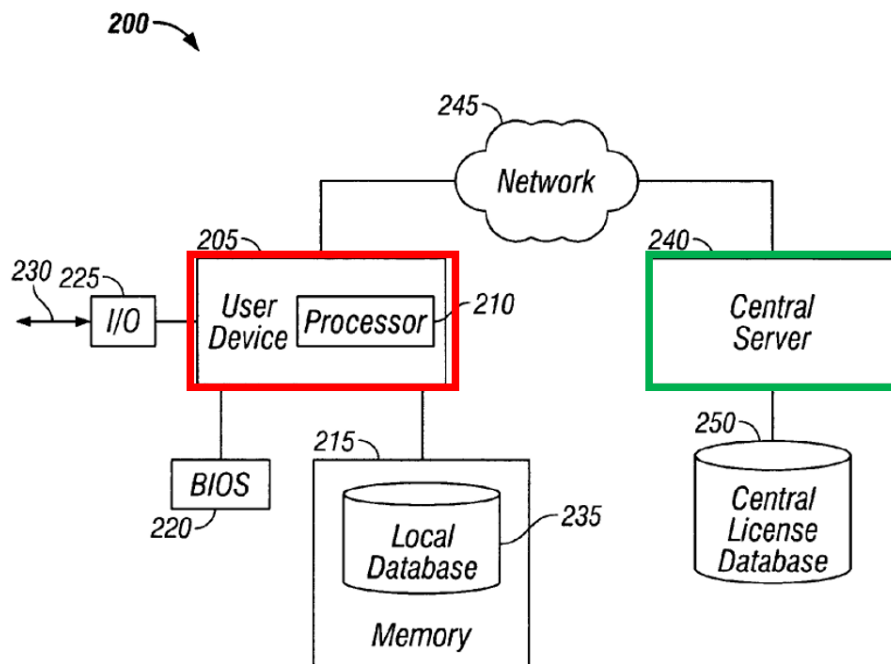


FIG. 2

EX1005, FIG. 2 (annotated).

Pou's system (Figure 2 above) includes a "central server" 240 (green), as well as a plurality of "user devices" 205 (red). *Id.*, ¶¶31, 43, 57. Figure 1 (below) depicts Pou's licensing and digital rights management process. *Id.*, ¶¶31, 50-56.

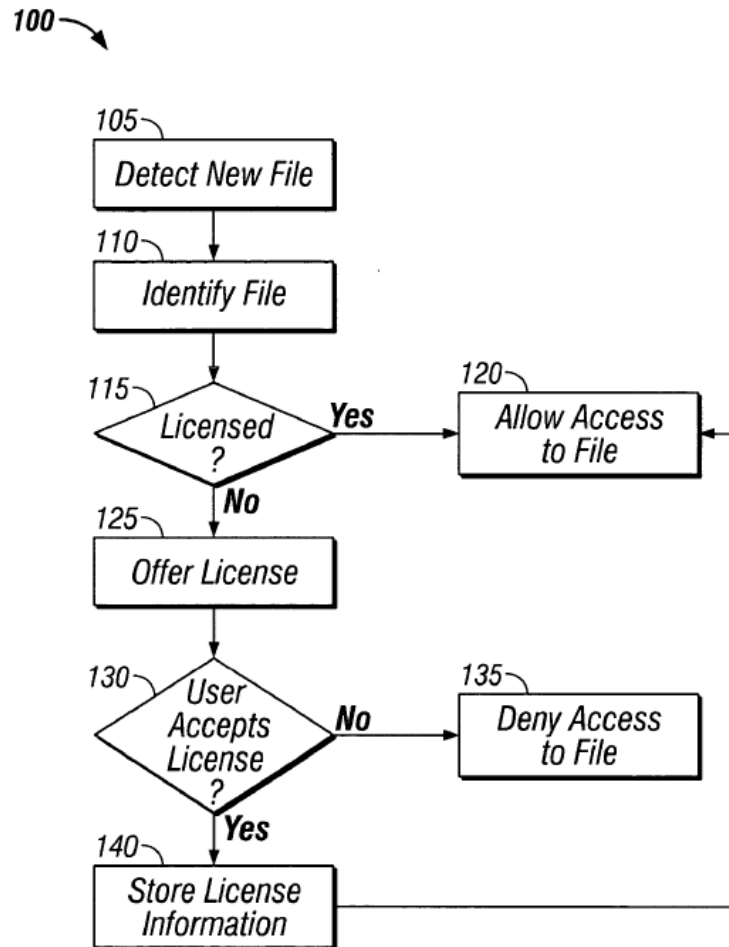


FIG. 1

EX1005, FIG. 1.

At step 105, a loaded media file is detected and "examined using file identification software in an attempt to identify the file" (step 110). *Id.*, ¶¶13, 51, 64, 82. This may be a digital file loaded at a user device. *Id.*, ¶¶46, 48, 50-51. Pou,

like the '590 patent, uses “watermarking and fingerprinting techniques” to identify the content. *Id.*, ¶¶13, 51, 53-54.

Pou then determines whether a user loading the digital file has already licensed the content by checking a local or remote license database using the unique file ID or fingerprint (step 115). *Id.*, ¶¶55, 59, 77, 83. If the file is licensed, access is granted (step 120). *Id.*, ¶¶55, 60, 84. If not, a license may be offered for purchase via a “pop-up window” (step 125). *Id.*, ¶¶56, 85. The user may accept or decline the offered license by clicking “on an accept button or a decline button in the pop-up window.” *Id.*, “If the user does not accept the license, access to the file is denied (step 135).” *Id.* If accepted, licensing information is stored in the license database (step 140). *Id.*, ¶¶56, 79-80, 85.

C. A POSA Would Have Combined Peled and Pou.

1. A POSA would have been motivated to improve Peled’s distribution of content by including Pou’s licensing management framework.

Peled and Pou each disclose many of the claimed features. A POSA would have generally been motivated to combine various features of Peled and Pou to provide a comprehensive license management framework. Generally, Pou would improve the efficiency and accuracy of Peled’s identification and distribution of content. EX1002, ¶¶155-62. For example, a POSA would have recognized that Pou’s content licensing, tracking of previously obtained media licenses, and

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offering of new media licenses to consumers would improve Peled's management of content purchases and gathering of user data related to media transactions.

EX1002, ¶¶156-57. As another example, Pou's license management and fingerprint checking techniques improve Peled's ability to track user purchases and generate reports that identify reasons a user refused to purchase a license (i.e., because the user has already obtained the media content). EX1002, ¶¶156-59.

Further, Peled describes tracking user purchases and purchase history to perform market analyses. EX1003, ¶¶1-2, 7, 177. A POSA would have understood that a well-known way to track purchased media content would be to use unique content identifiers. EX1002, ¶¶156-62. Pou describes one technique that uses a "fingerprint" or "'Unique File ID' (UFID)" to identify media files. EX1005, ¶¶51-55, 65, 83, 111. A POSA would have combined Pou's fingerprint and UFID techniques with Peled to track user purchases including licenses and identify media content that a user has already obtained. *Id.*, ¶¶55-56, 59; EX1002, ¶¶156-59.

Pou's checking of whether a user has already obtained a license with Peled would also improve the efficiency and accuracy of Peled's content distribution system to direct licensed content to a consumer. EX1005, ¶¶55-56, 59; EX1003, ¶¶159-60; EX1002, ¶¶156-59. For example, a fingerprint is a compact, "reduce-bit representation of content" and therefore provides fast and computationally efficient comparisons. EX1006, ¶140; EX1002, ¶¶156-59.

The combination of Peled-Pou would also help combat and prevent “illegal content distribution.” EX1003, ¶184; EX1005, ¶3; EX1001, 1:36-55. For example, through the use of Pou’s license management and fingerprint or UFID techniques, content providers or distributors would be able to identify and thus better address illegal content distribution. EX1003, ¶¶2-9, 196, 198, 200; EX1002, ¶¶160-62.

2. A POSA would have known how to combine Peled and Pou and would have had a reasonable expectation of success.

A POSA would have known how to combine Peled and Pou and would have had a reasonable expectation of success. EX1002, ¶¶163-65. A POSA would have implemented Pou’s purchase and license tracking and fingerprinting and UFID techniques with Peled to distribute licensed content. EX1005, ¶¶51-56, 59, 65, 83, 111. The combined system would determine whether a user has already obtained a licensed and potentially identify reasons for refusal. *See* Sections VI.C.1; EX1002, ¶¶163-65.

Both Peled and Pou describe conventional server systems for managing digital media files. EX1003, ¶¶164-66; EX1005, ¶¶55, 59. A POSA would have therefore easily selected the relevant technology described by the references and combined them using well-known computer programming techniques to create an algorithm that implements the alleged invention here. EX1002, ¶¶164-65; EX1003, ¶¶168-69. Combining Peled and Pou would have thus amounted to nothing more than combining known prior art elements according to known methods to yield

predictable results and applying a known technique to a known device ready for improvement to yield predictable results. EX1002, ¶¶163-65.

D. Peled-Pou Discloses Claim 1.

Peled-Pou discloses claim 1. The Petition includes a claim appendix that identifies a shorthand for each element of claim 1. Appendix A.

1. [1P].

To the extent the preamble is limiting, Peled facilitates the distribution of media content items (digital media files) to content consumers. EX1003, ¶¶166, 173, 197. Content consumers 14 use “a general purpose computer” (i.e., the claimed “multimedia hardware device”) to consume the content distributed by “apparatus 20”. *Id.*, ¶¶121, 159, 166-68, FIG. 6.

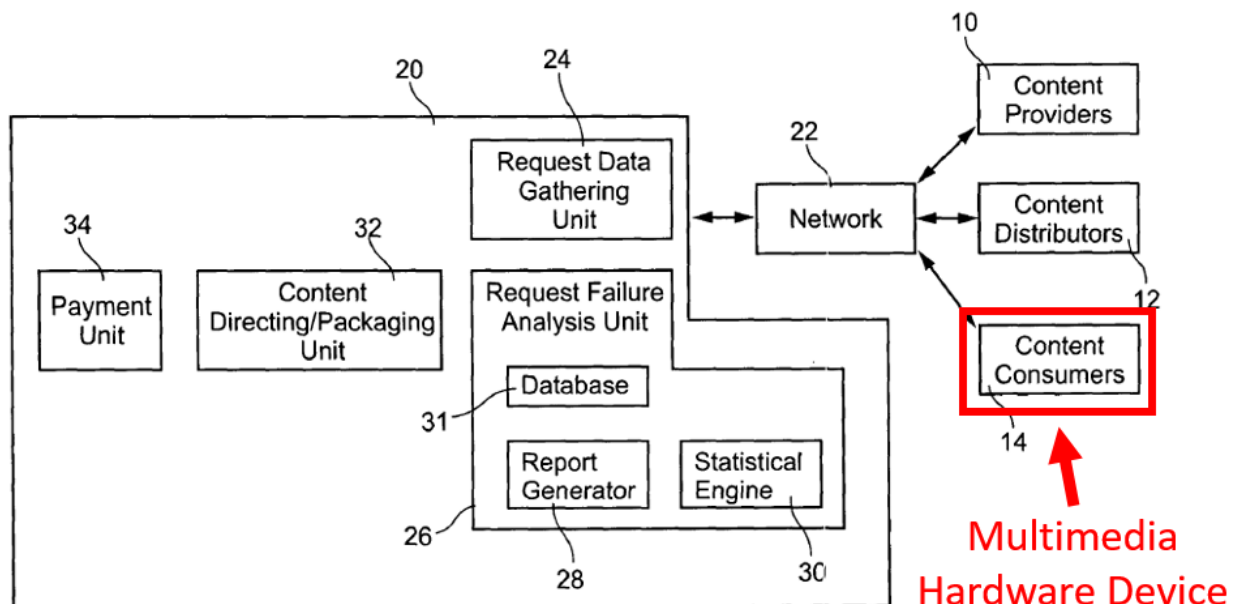


Fig. 6

EX1003, FIG. 6 (annotated).

Content directing/packaging unit 32 directs “video files/streams” to consumers and therefore generates an authorized reproduction. EX1003, ¶¶166, 176-77, 197; EX1002, ¶¶166-70.

Pou also describes authorizing reproduction of media files on a “user device.” EX1005, ¶¶50, 64, 108-10. Pou describes authorizing reproduction when receiving a license payment. *Id.*, ¶¶55, 108-10; EX1002, ¶¶171-72. Peled-Pou thus discloses the preamble.

Although the preamble refers to a client’s “multimedia hardware device,” it is directed more generally to a “computer implemented method for providing” the device to reproduce a media content item. Thus, to the extent the preamble is limiting, it merely requires that the performance of the claim body’s steps result in a device that generates an authorized reproduction of a media content item. The preamble does not require all claim steps to be performed only on the multimedia hardware device. Section IV.C. The context of claim 1 suggests that at least some of its limitations would be performed by the licensing system on a server. *Id.*

Regardless, a POSA would have found it obvious that each of the claim steps could be performed either on Peled’s or Pou’s server or consumer devices. Peled explains that its system “is not limited in its application to the details of construction and the arrangement of the components set forth” in its disclosure and

figures, and that “other embodiments” are possible and the system can be “carried out in various ways.” EX1003, ¶¶156, 201; EX1002, ¶¶173-78.

2. [1A] “receiving a license request...to engage in a license transaction.”

The “license request” refers to a consumer expressing a desire to obtain a license for content. EX1001, 10:25-33; EX1002, ¶¶179-80. Peled describes the same receiving of requests: “content distribution site 2...*receiving requests from consumers for the content.*” EX1003, ¶¶155, 159, 161, 164, 175-78, 180; EX1002, ¶¶181-85. A POSA would have understood that these requests would have been structured as license transactions with Pou explicitly describing such license transaction requests. EX1005, ¶¶55, 59, 83, 100; EX1002, ¶¶185-87.

Pou describes determining “whether [a] file has been licensed for use on the user device and/or by the particular user (step 115).” EX1005, ¶¶55, 59. Pou checks a license database using a UFID “to determine if the user has a license for the media file.” *Id.*, ¶¶83, 100. Thus, Pou discloses receiving license requests to engage in a license transaction. EX1002, ¶¶185-87; Sections VI.A-C.

3. [1B] “evaluating the license transaction to determine whether the user has acquired a license.”

Pou’s steps 115, 120, and 125 in Figure 1 disclose the claimed “evaluating.” This evaluation occurs at a central server and a user device.

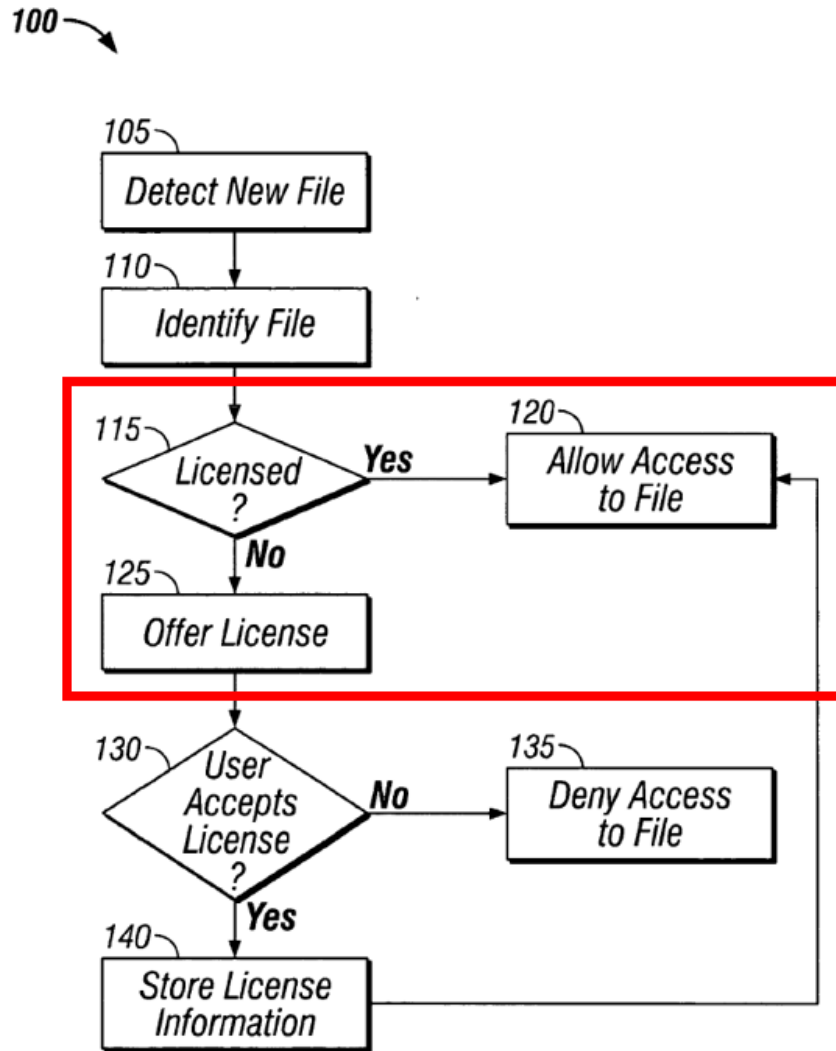


FIG. 1

EX1005, FIG. 1 (annotated).

Pou's central server receives a license transaction request and evaluates the request to determine if a user has already obtained a license (step 115). *Id.*, ¶¶55-56, 59. This evaluation also occurs at the user device by checking a "locally (e.g.,

on the user device)” stored license database. EX1005, ¶¶55; *see also id.*, ¶¶52, 57-58, 100; Section VI.C; EX1002, ¶¶188-94.

4. [1C] “...extracting from the license transaction user data...wherein the user data includes demographic data...that enables a copyright owner...to gauge a demographic that acquired the license...and a demographic that declined the license.”

Peled extracts user demographic data when users acquire or decline a license. EX1003, ¶¶1-2, 169, 172, 175-77, 186. Peled analyzes personal data for “approved purchase requests.” *Id.*, ¶¶2, 177. Peled also extracts user data when a user declines and chooses “not to buy” the license (i.e., “online requests that do not result in a sale”). *Id.*, ¶¶155, 169, 175-77, 186. The user data “may include profiles of *individual* consumers or groups of consumers,” including “geographical factors” or “personal data.” *Id.*, ¶169. Peled identifies the reason for refusal based on this collected user demographic data. *Id.*, ¶186; *see also id.*, ¶¶2, 175-77, 199; EX1002, ¶¶195-208. Peled provides this data to “content providers,” which disclose the claimed “copyright owner.” EX1002, ¶209; EX1003, ¶¶157, 175-76, 179; *see also* EX1005, ¶¶4, 57, 65, 110.

Peled generates “reports” for content providers, which summarize the user data. EX1003, ¶168; *see also id.*, ¶¶54, 69-70, 155, 172, 180. The reports include demographic information and a “statistical analysis of data of non-completed requests taken together to determine why requests are not being completed.” *Id.*,

¶¶168-69, 175, 183. This enables copyright owners to gauge demographics who have acquired or declined a license. *Id.*, ¶¶9, 155, 172, 177, 196-98, 200; EX1002, ¶¶210-12.

5. [1D] “aggregating the user data into a statistics record...when the user acquires the license and when the user declines the license.”

Peled aggregates user data into a statistics record corresponding to the license request. EX1003, ¶¶1-2, 169, 172, 175-77, 186; Section VI.D.4. Peled aggregates gathered user demographic information, such as “personal data,” geographic location, and age. EX1003, ¶¶169, 199. Peled combines the aggregated information into “profiles,” which correspond to the claimed “statistics records.” *Id.*, ¶¶169, 172, 175-77, 180. The user profiles are tracked along with acceptance and refusal information. *Id.*, ¶¶1-2, 169, 172, 176-77, 180; EX1002, ¶¶213-15.

6. [1E] “storing in a license database the statistics record so that the user data is accessible to the copyright owner.”

Peled stores user demographic data within a user profile (claimed “statistics record”) in “database 31.” EX1003, ¶¶169-70, FIG. 6; Sections VI.D.4-5. The database includes refusal data, user profiles, and personal data. EX1003, ¶¶169-70.

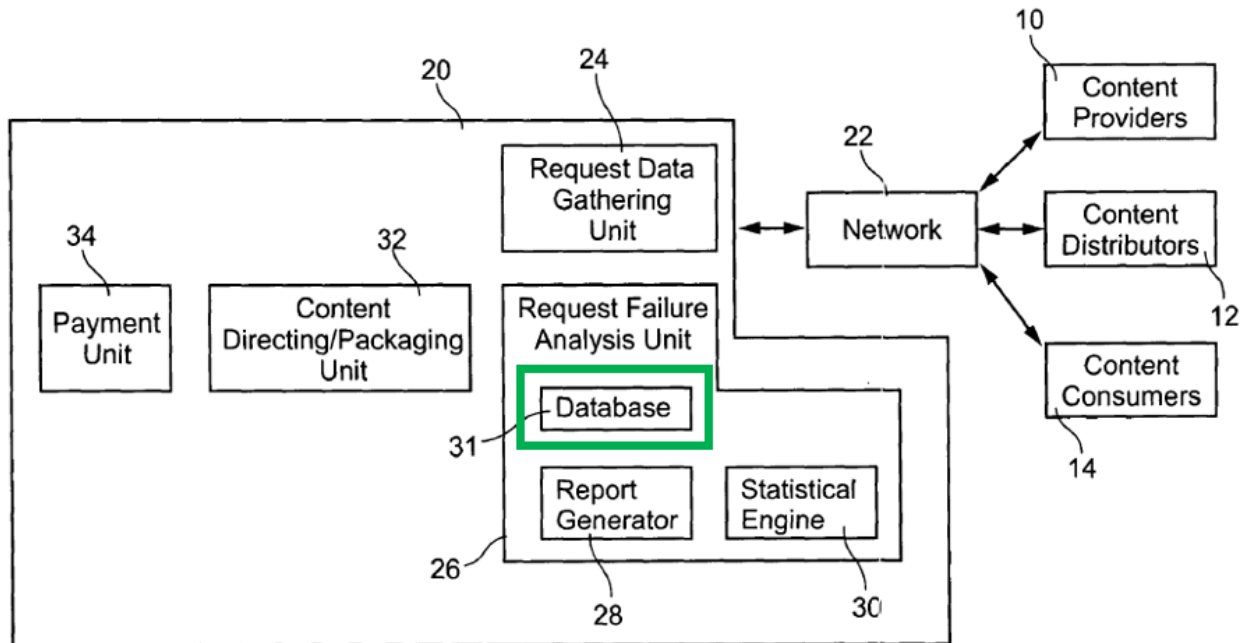


Fig. 6

EX1003, FIG. 6 (annotated).

Thus, Peled describes storing a statistics record in a database to generate reports for content providers. EX1002, ¶¶209-12, 216-20; Section VI.D.4.

“Request failure analysis unit 26” generates these reports and provides user data summaries to content providers, such that the user data is accessible. EX1003, ¶¶155, 168-69, 172, 177, 187, 196, 199-200; EX1002, ¶¶195-212, 216-19.

A POSA would have found it obvious to store Peled’s user profile data in a licensing database, such as the “central license database 250” described in Pou because both are conventional memory systems. EX1002, ¶220. Peled’s and Pou’s databases commonly organize media information based on particular users—

allowing for the efficient management of the license management system. EX1002, ¶¶216-220.

7. [1F] “analyzing a plurality of statistics records...to provide the copyright owner with the aggregated user data.”

Peled analyzes a plurality of statistics records and provides aggregated user data to content providers (i.e., the claimed “copyright owners”) in the form of reports. *See* Sections VI.D.4-6; EX1003, ¶169. Peled describes building a “personal profile” for individual users and a profile for “groups of consumers.” EX1003, ¶¶169, 180, 183. Peled performs a “statistical analysis” of the user data to generate and provide summary reports. *Id.*, ¶183. Peled also allows content providers to query the data for analysis. *Id.*, ¶187. By generating reports and responding to queries, Peled discloses analyzing and communicating aggregated user profile information to copyright owners. *Id.*; EX1002, ¶¶221-22.

E. Claim 7.

Claim 7 is similar to claim 1 in most material respects, but its preamble recites a “media content streaming and verification system,” which is not patentably distinct. Again, the claim steps need not occur at any particular device. Section VI.D.1. Claim 7 also recites a “media catalog database,” which is similar to claim 1’s “license database,” and a “media content record,” which refers to licensing information stored in claim 1’s license database. These are also not patentably distinct features and therefore, Peled-Pou renders claim 7 obvious for

the reasons presented in claim 1, and as further explained below. EX1002, ¶¶223-28.

[7P]	Section VI.D.1 ([1P]).
[7A]	Section VI.D.2 ([1A]).
[7B]	Section VI.D.3 ([1B]).
[7C]	Section VI.D.4 ([1C]).
[7D]	Section VI.D.5 ([1D]).
[7E]	Section VI.D.6 ([1E]).
[7F]	Section VI.D.7 ([1F]).

Claim 7 recites a “media content licensing and verification system” in [7P]. Regarding [7P], Peled’s apparatus 20 and Pou’s central server 240 disclose this claimed system. EX1002, ¶224; EX1003, ¶¶61, 159, 80, 94, 111, 158-60, 166, 173, 178, 182; EX1005, ¶¶2, 8, 31, 42-43, 57.

Peled-Pou also discloses accessing a “media catalog database” to identify a “media content record” to identify requested media content. EX1001, 10:34-59. As described below, Pou’s identification of licensing rights for specific media discloses this same content identification. Therefore, Pou’s central license database also discloses a “media catalog database” containing a “media content record.” EX1002, ¶¶225-26. Regarding [7A] and [7B], Pou discloses loading a media file at a user device and analyzing the media file to determine a UFID/“fingerprint” (*i.e.* digital media information). EX1005, ¶¶13, 51, 57, 64-65, 111. Pou also describes checking a license database using the file’s UFID/fingerprint “to determine if the user has a license for the media file.” *Id.*, ¶¶83, 100. Pou’s central license database

therefore discloses the claimed “media catalog database,” which includes UFIDs/digital fingerprints that disclose the claimed “media content record” identifying different digital files. *Id.*, ¶¶43, 51-52, 54, 65, 99-100. Likewise, Pou’s central license database discloses the “license database” recited in [7E]. Section VI.D.6; EX1002, ¶227. Thus, Pou describes a media licensing request that includes digital media information and determining if a user has a license. EX1002, ¶¶227-28.

Regarding [7B], when a UFID is found in the central database with a corresponding license, Pou allows the use of the media file. EX1005, ¶100. When a license is not found, one may be offered. *Id.*, ¶56. “If the user does not accept the license, access to the file may be denied (step 135).” *Id.* While providing the option to obtain a license, the media licensing request is still declined when a user does not accept a license. EX1002, ¶¶228.

F. Claim 13.

Independent claim 11 claims a “system” that performs substantially the same method recited in claim 1. Peled-Pou thus discloses claim 13 for the reasons presented in claim 1. EX1002, ¶¶229-30.

[13P]	Section VI.D.1 ([1P]).
[13A]	Section VI.D.2 ([1A]).
[13B]	Section VI.D.3 ([1B]).
[13C]	Section VI.D.4 ([1C]).
[13D]	Section VI.D.5 ([1D]).
[13E]	Section VI.D.6 ([1E]).

[13F]	Section VI.D.7 ([1F]).
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Claim 13 additionally recites a “processor” and “memory,” but these are not patentably distinct features. Regarding the “processor” and “memory” in [13P], Peled and Pou disclose server processors configured to perform the method steps. EX1003, ¶¶62-63, 69, 74, claims 33-34, 40, 45, 130-31, 137, 142; EX1005, ¶¶26, 57, 112-14, claims 74, 78-80, 82-86, 89, 92, 95-96, 98-101, 104-05, 107-08, 111, 113-16; EX1002, ¶230. Further, a POSA would have understood Peled’s server to include memory to execute Peled’s functionality. EX1002, ¶230. Pou explicitly recites such a configuration with its central server including memory like a “central license database” 250. EX1005, ¶¶59, 62, FIG. 2. As Pou explains, processors generally “receive instructions and data from a read-only memory.” *Id.*, ¶113.

G. Claim 19.

Independent claim 19 claims a “system” that performs substantially the same method recited in claim 7. Peled-Pou thus discloses claim 19 for the reasons presented in claim 7. EX1002, ¶¶231-38.

[19P]	Sections VI.D.1, VI.E ([1P], [7P]).
[19A.1]	Sections VI.D.2, VI.E ([1A], [7A]).
[19A.2]	<i>See below.</i>
[19B]	Sections VI.D.4-6, VI.E ([1D]-[1E], [7C]).
[19C]	Sections VI.D.3-4, VI.E ([1C], [7C]).
[19D]	Sections VI.D.5, VI.E ([1D], [7D]).
[19E]	Sections VI.D.6, VI.E ([1E], [7E]).
[19F]	Sections VI.D.7, VI.E ([1F], [7F]).

Claim 19 additionally recites a “transceiver” and “a memory coupled to a processor.” But these are not patentably distinct features for the reasons set forth below. Regarding [19A.1], Peled-Pou discloses transceivers that facilitate communications over the Internet. EX1002, ¶¶232-36. Peled’s Figure 6 is illustrative:

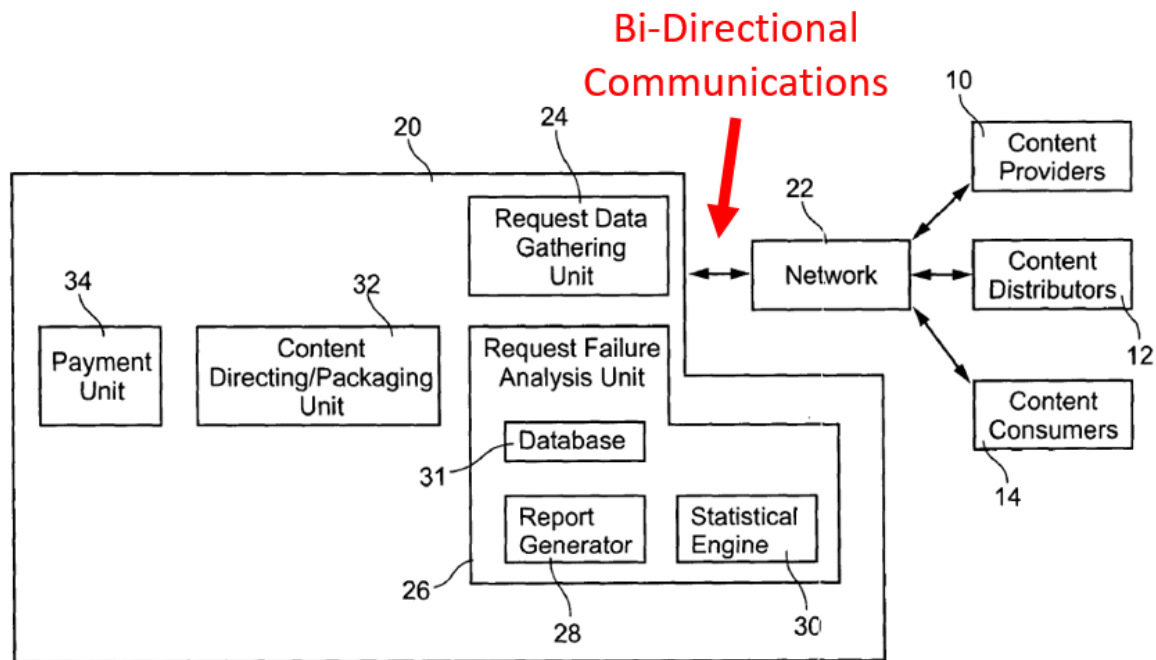


Fig. 6

EX1003, FIG. 6 (annotated).

Figure 6 depicts “network interactive distribution auxiliary apparatus 20” performing bi-directional communications over “network 22.” EX1003, ¶¶166-67; *see also id.*, ¶¶157-58, 173, 197. Apparatus 20 therefore uses a transceiver to facilitate these communications. EX1002, ¶233.

Pou also describes “central server 240” facilitating bi-directional communications with “user device 205.” EX1003, ¶59. Pou’s Figure 2 is illustrative:

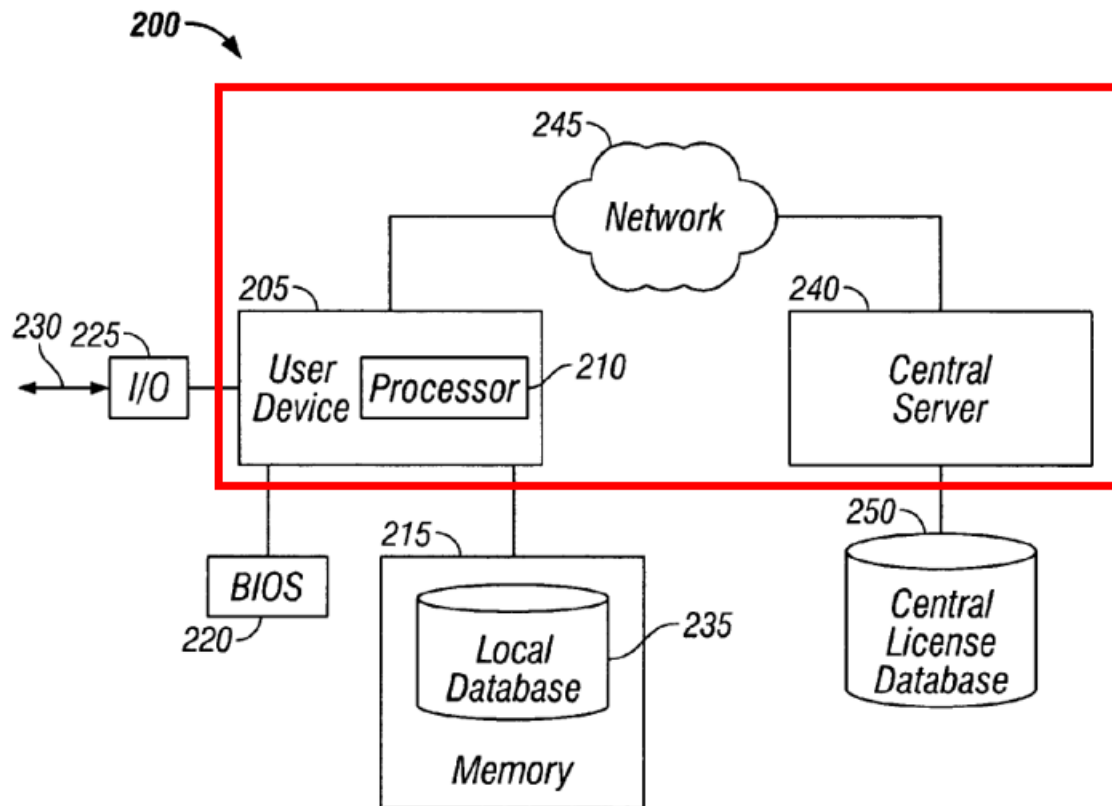


FIG. 2

EX1005, FIG. 2 (annotated).

Pou describes communications over a wireless network or the Internet. EX1003, ¶59. Thus, both Peled and Pou describe servers with transceivers to transmit/receive communications from user devices. EX1002, ¶¶233-36.

Regarding [19A.2], Peled and Pou disclose server processors configured to perform the method steps. EX1003, ¶¶62-63, 69, 74, claims 33-34, 40, 45, 130-31, 137, 142; EX1005, ¶¶26, 57, 112-14, claims 74, 78-80, 82-86, 89, 92, 95-96, 98-101, 104-05, 107-08, 111, 113-16; EX1002, ¶237. Further, a POSA would have understood Peled's server to include memory to execute Peled's functionality. EX1002, ¶¶237-38. Pou explicitly recites such a configuration with its central server including memory like a "central license database" 250. EX1005, ¶¶59, 62, FIG. 2. As Pou explains, processors generally "receive instructions and data from a read-only memory." *Id.*, ¶113.

H. Claims 2 and 14 ("receiv[ing] a license" and "preventing reproduction...when the licensing request is declined by the licensing system").

Pou updates the local or central database when a user has purchased a license to a media file. EX1005, ¶¶11, 13, 17, 56, 77-79, 85, 101. If purchased, the user device receives and stores the license so that "access to the media file on the user device is allowed." EX1005, ¶¶25-27, 56, 101; EX1002, ¶¶239-41.

Pou prevents reproduction when the licensing request is declined; for example, when "no payment method offered is validated." EX1005, ¶80; EX1002, ¶242. Peled also describes declining a request to obtain a license based on business rules as well as to prevent fraud. EX1003, ¶¶175, 187; EX1002, ¶¶243-44.

I. Claims 3 and 15 (“plurality of reproduction parameters”).

“Reproduction parameters” refer to the terms of a license. EX1002, ¶¶245-46. Peled-Pou discloses such reproduction parameters. Peled describes packaging content with “additional advertising content” that may affect the price of a license. EX1003, ¶¶158, 177. Peled also offers a “lower resolution or edited versions of the movie” to reduce costs. *Id.*, ¶158; *see also id.*, ¶¶175-76 (“Italian subtitles” and age restrictions). These examples show Peled reproducing content based on different reproduction parameters. EX1002, ¶¶247-48.

Pou similarly describes “distribution limitations” and “license terms, such as duration, use and distribution limitations” set forth in a license that control reproduction. EX1005, ¶56. Pou also discloses “temporary licenses” with an “expiration date/time.” *Id.*, ¶96; *see also id.*, ¶¶44, 65, 83, 103-111. Pou’s duration and use license terms also disclose the claimed reproduction parameters. EX1002, ¶249. A POSA would have used Peled-Pou’s reproduction parameters in combination depending on the terms of the license obtained by the consumer. EX1002, ¶250.

J. Claims 4, 10, 16, and 21 (storing user data such that it is “accessible to a third party online media retailer”).

Peled provides user data to third party online retailers (“content retailers RT1...RTn”) which differ from “content providers CP1...CPn.” EX1003, ¶157, FIG. 1; EX1002, ¶¶251-53.

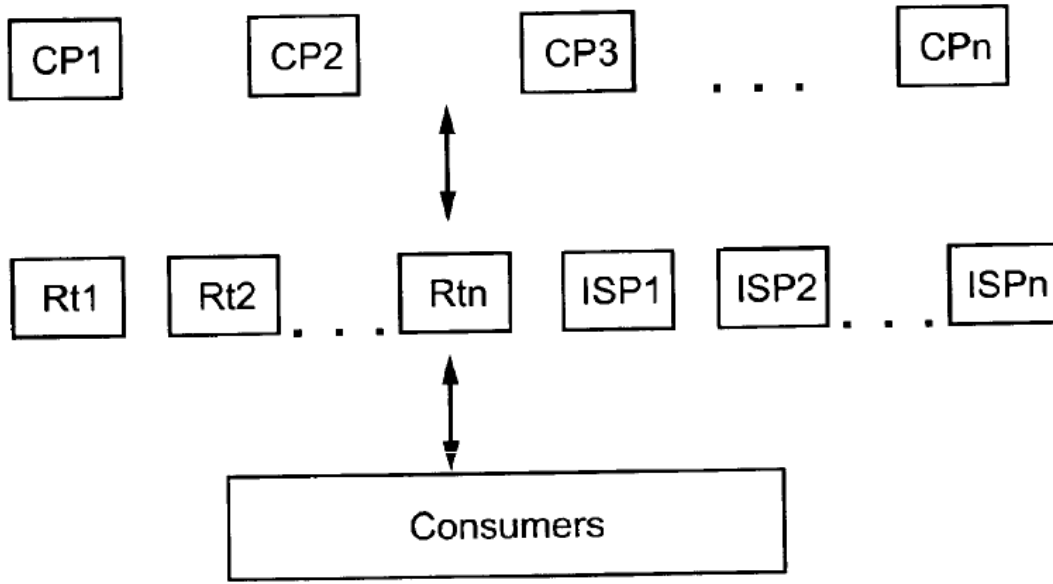


Fig. 1

EX1003, FIG. 1.

Figure 2 also depicts this distinction. EX1003, ¶158.

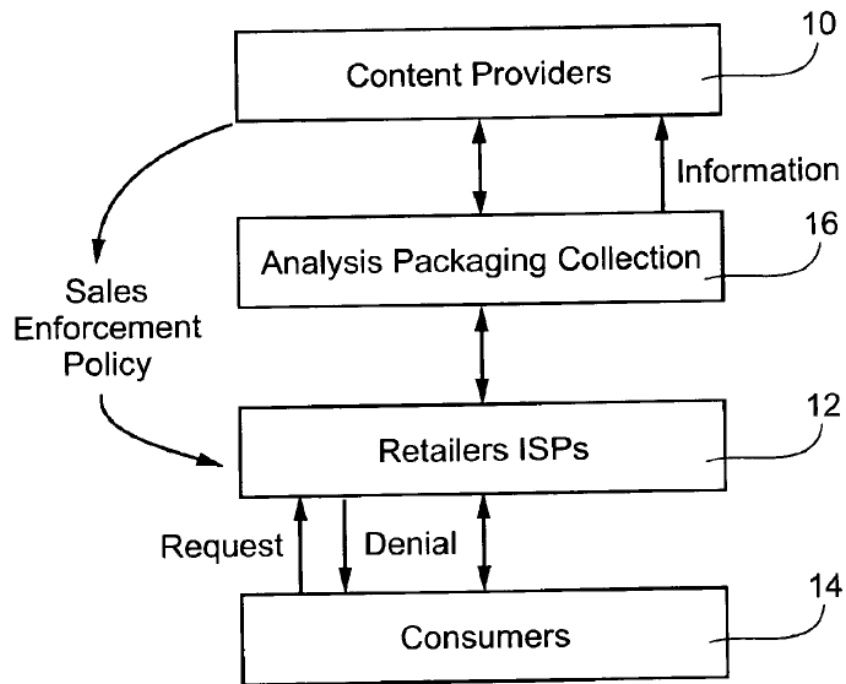


Fig. 2

EX1003, FIG. 2.

Peled refers to “content distributors” as retailers using the same identifier “12.” EX1003, ¶¶157-58, 166; EX1002, ¶254.

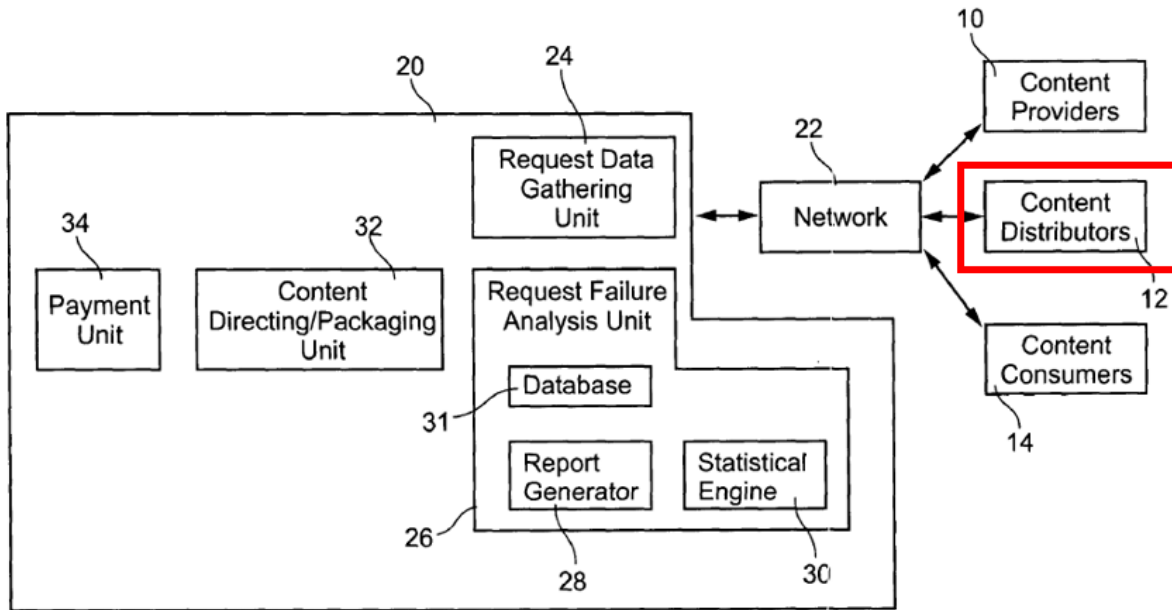


Fig. 6

EX1003, FIG. 6 (annotated).

Peled provides reports to retailers “on a per distributor basis” or to parties requesting the report. *See* Section VI.D.6-7; EX1003, ¶183; EX1002, ¶255. Peled therefore provides reports to the claimed “third party online media retailer.” EX1002, ¶256.

K. Claims 6 and 23 (“geographic location”).

Peled discloses tracking geographic location information as part of the stored demographic user data. *See* Sections VI.D.4-7; EX1003, ¶¶56, 74, 169, 176,

186, 196; EX1002, ¶¶257-58. Peled also enables a content provider (i.e., “copyright owner”) to gauge the geographic location as well. *See* Sections VI.D.4-7.

L. Claims 8 and 20 (generating and storing a “license record in a registered user database”).

Peled-Pou discloses storing license information corresponding to different users and granting licenses to user devices attempting to reproduce content. *See* Sections VI.D.3 and VI.H. Peled-Pou also discloses generating and storing license records in a registered user database. EX1002, ¶¶259-61. Pou stores user license information for “individual users” in a local database and/or a central database, which discloses the claimed generation and storage of a “license record.” EX1005, ¶¶27, 55, 59, 85, 101; Section VI.D.3.

Peled-Pou also tracks “registered” users and stores records in a “registered user database.” EX1002, ¶¶262-67. Peled tracks user identification and purchase habits via a “cookie” or a user “logging in” with registered user credentials. EX1003, ¶¶177, 187, 194. Pou also describes a central server identifying a user based on user login credentials. EX1005, ¶¶91, 96.

M. Claim 9 (“fingerprint”).

Pou discloses digital media information including a “fingerprint” associated with the media content item. *See* Section VI.E; EX1005, ¶¶13, 51-52, 54, 82; EX1002, ¶¶268-71.

N. Claim 12 (user data includes “additional media content items” previously accessed).

Peled discloses tracking additional media content items that a user has previously accessed via a consumer’s previous purchase history. EX1003, ¶177; *see also id.*, ¶¶162, 169, 181, 200; EX1002, ¶¶272-73. The user’s previous purchase “history” refers to “additional media content items” as claimed and is also tracked as user data. EX1002, ¶273.

VII. GROUND 2: CLAIM 18 IS OBVIOUS OVER PELED, POU, AND BRANDSTETTER.

Claim 18 is similar to claim 12 and requires the additional feature of tracking the quantity of times that the user has previously accessed a media content item. Brandstetter discloses this feature. EX1004, ¶¶147, 173; Section VI.N. For example, this occurs when Brandstetter implements a “play n-number of times licensing package.” *Id.*; EX1002, ¶¶274-76; *see also* Section IX.A.

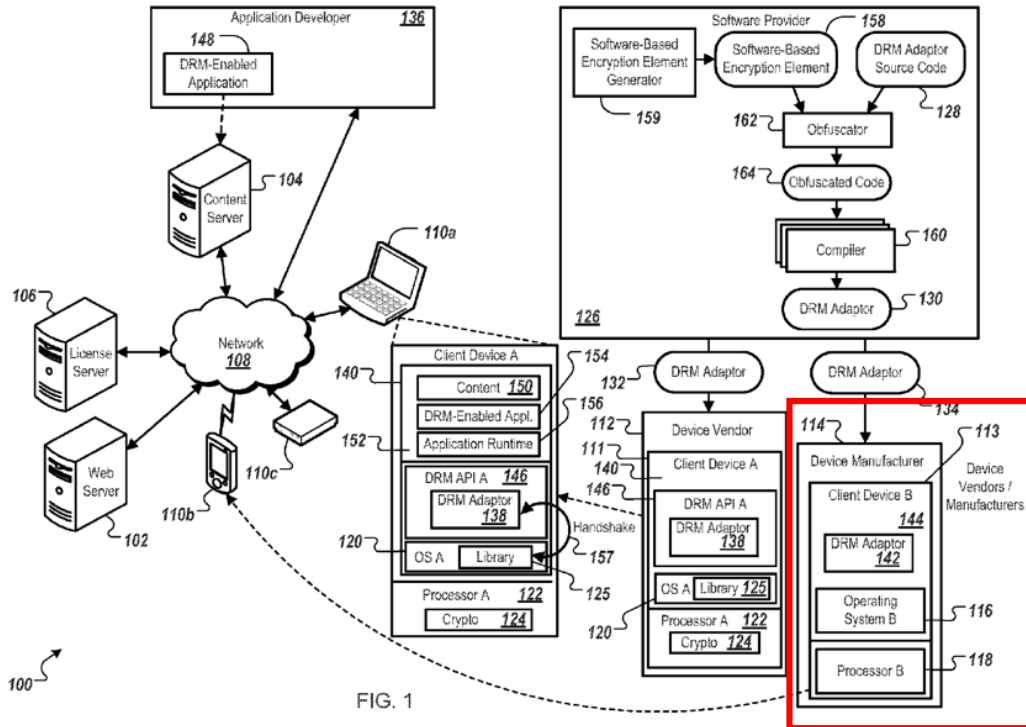
A POSA would have been motivated to combine Brandstetter with Peled and Pou to provide additional accuracy for Peled’s user demographic data and to provide a rental option that tracks a number of plays. EX1003, ¶169; EX1002, ¶277. For example, tracking the number of times a user has previously accessed a content item may aid Peled’s system when offering alternative content to a user. EX1002, ¶277; EX1003, ¶177. Also, Brandstetter’s rental option may be offered for a lower price and be provided when a consumer has “shown a willingness to

purchase at a given lower price” as explained in Peled. EX1002, ¶¶157, 203, 215, 218, 263, 273; EX1003, ¶177; EX1004, ¶¶75, 120. Implementing Brandstetter’s tracking would provide rental functionality for offering content and also provide additional accuracy for Peled’s user demographic data. EX1002, ¶277. Peled-Pou-Brandstetter thus renders claim 18 obvious.

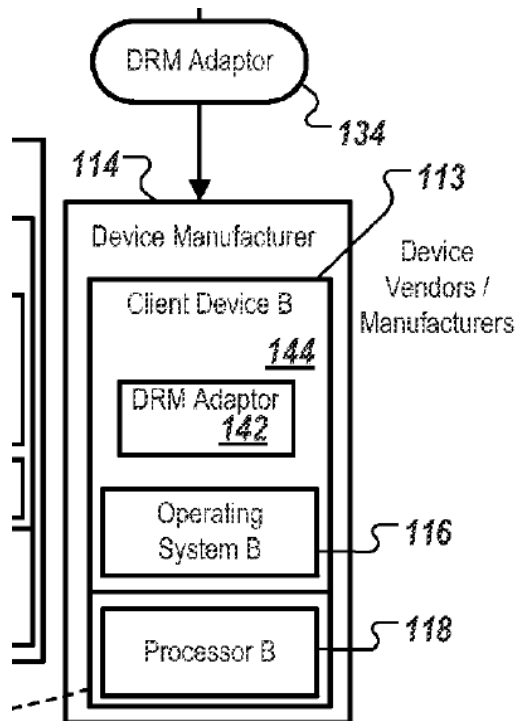
VIII. GROUND 3: CLAIMS 5, 11, 17, AND 22 ARE OBVIOUS OVER PELED, POU, AND VIJAY.

Dependent claims 5, 11, 17, and 22 are nearly identical and describe storing user data such that it is “accessible to a hardware device manufacturer.” Vijay discloses this feature.

Vijay discloses protecting electronic content using a “digital rights management (‘DRM’) system.” EX1008, ¶¶2-3; EX1002, ¶¶149-51, 278-83. To provide DRM protection, Vijay describes “device manufacturer 114” depicted in Figure 1. *Id.*, ¶22.



EX1008, FIG. 1 (annotated).



EX1008, FIG. 1 (excerpted).

Device manufacturer 114 provides client devices 110 with DRM protection.

Id., ¶¶22, 25, 27. “[D]evice manufacturer 114 may develop both an operating system 116 and a hardware processor 118 for the client device 113” to provide “hardware-based encryption.” *Id.*, ¶¶22-23, 27, 45-46. To achieve this feature, device manufacturer 114 provides client devices 110 with a “DRM adaptor.” *Id.*, ¶¶22, 25, 27. Vijay thus discloses storing user data such that it is accessible to a “hardware device manufacturer.” EX1002, ¶¶280-83; EX1008, ¶¶23, 27, 45-46.

Peled, in turn, provides user data to any “party requesting the report.” EX1003, ¶183; Section VI.J; EX1002, ¶¶252-56. Peled-Pou-Vijay thus discloses providing user data to a “hardware device manufacturer.”

A POSA would have found it obvious to allow a DRM device manufacturer to access encryption-related information to provide additional “secure, dynamic device profiling” prior to decrypting content for reproduction. EX1008, ¶¶29, 34, 39, 56, 60, 73-76; EX1002, ¶¶282-83. For example, Peled-Pou-Vijay would use a consumer’s geographic location information to confirm an expected user device prior to decrypting content for reproduction. EX1003, ¶¶56, 74, 169, 176, 186, 196; EX1002, ¶283. A POSA would have been motivated to combine Vijay with Peled and Pou to provide this additional security. EX1002, ¶283.

IX. GROUND 4: CLAIMS 1-4, 6-10, 12-16, 18-21, AND 23 ARE OBVIOUS OVER BRANDSTETTER-LEVY.

Brandstetter-Levy discloses every element of independent claims 1, 7, 13, and 19, which are materially identical. Ground 4 relies on Brandstetter as a primary reference that discloses the alleged point of novelty (i.e., gathering demographic data when users accept or decline content license offers). Levy discloses many of the claimed conventional content identification techniques recited in the claims as well. Brandstetter and Levy both describe the management of content licenses.

EX1002, ¶¶284-444.

A. Overview of Brandstetter

Brandstetter discloses an online platform where content creators can market and distribute digital content. EX1004, Abstract, ¶¶69, 118. Figure 1C depicts Brandstetter's platform. The platform includes a central server 101 communicating with user client devices 111 via the Internet 121. *Id.*, ¶¶91, 109.

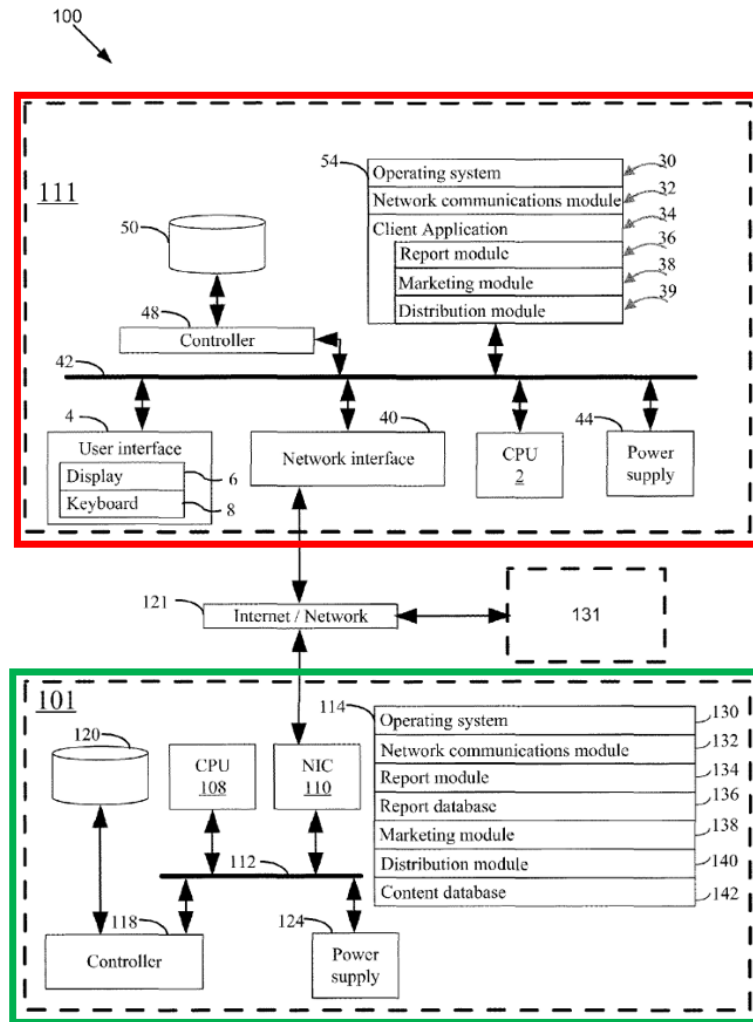


FIG. 1C

EX1004, FIG. 1C (annotated).

Brandstetter's platform licenses and distributes digital media content to a user. EX1002, ¶¶117-29. Distribution module 140 provides the content "in accordance with digital rights management constraints defined by the content creator." EX1004, ¶98. A user can purchase a license to rent or download content. *Id.*, ¶¶77, 120, 126, 173.

Brandstetter also includes a report module 134 that “collects information about user activity with respect to media content on the platform.” *Id.*, ¶¶71, 83, 96. This includes “user demographics (e.g., ages, geographical locations, ethnicities, genders),” as well as media characteristics and how users interacted with media content. *Id.*, ¶¶65, 71. Brandstetter also tracks user “activity up to and including a purchase” so that, “even if a purchase is not made, data related to audience interaction with content on the website can be indexed and used for later analysis.” *Id.*, ¶130; EX1002, 122-23.

Brandstetter stores this user data and uses it to generate activity reports. EX1004, ¶¶71, 96, 130. Any party with the right to market or distribute the content can request an activity report for one or more content items. *Id.*, ¶¶73, 84, 96. Activity reports statistically summarize how different users perceive a particular media content item and are compiled from aggregated demographic and platform activity data. *Id.*, ¶¶8, 65, 78, 133, 172. Figure 48 provides an example. EX1002, ¶¶124-29.

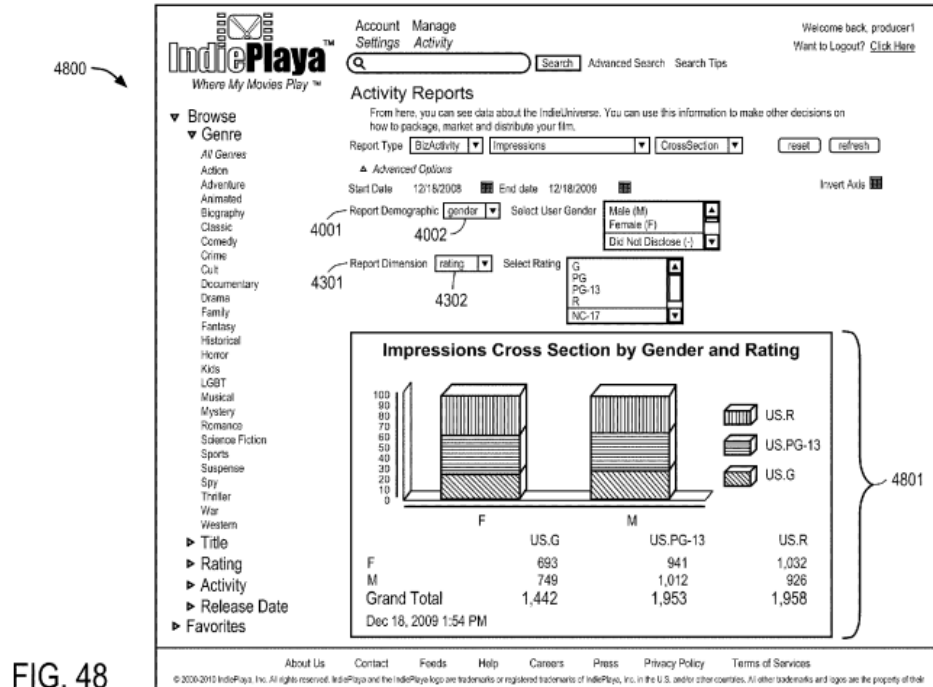


FIG. 48

EX1004, FIG. 48.

The report in Figure 48 summarizes user impressions by gender, but the reports can be generated according to other demographic parameters, such as user location. *Id.*, ¶¶173-74, 179. After receipt, content providers can analyze the report to inform marketing decisions. *Id.*, ¶¶73, 75-76, 80, 85-86, 97. Thus, Brandstetter “enable[s] content creators to efficiently market and distribute their content to a target audience.” *Id.*, ¶6; EX1002, ¶¶124-29.

B. Overview of Levy

Levy describes “integrating content identifiers with digital rights management systems.” EX1006, ¶¶3, 5-6, 10, 17. To manage digital rights, Levy describes a “Media Server” user device, which may be a “cell phone, MP3 player,

iPod®, [or a] computer” that includes “Client Player Application” software for playing content. *Id.*, ¶¶83-84. Levy depicts a method for authenticating content usage rights in Figure 17d. *See also id.*, FIG. 17a.

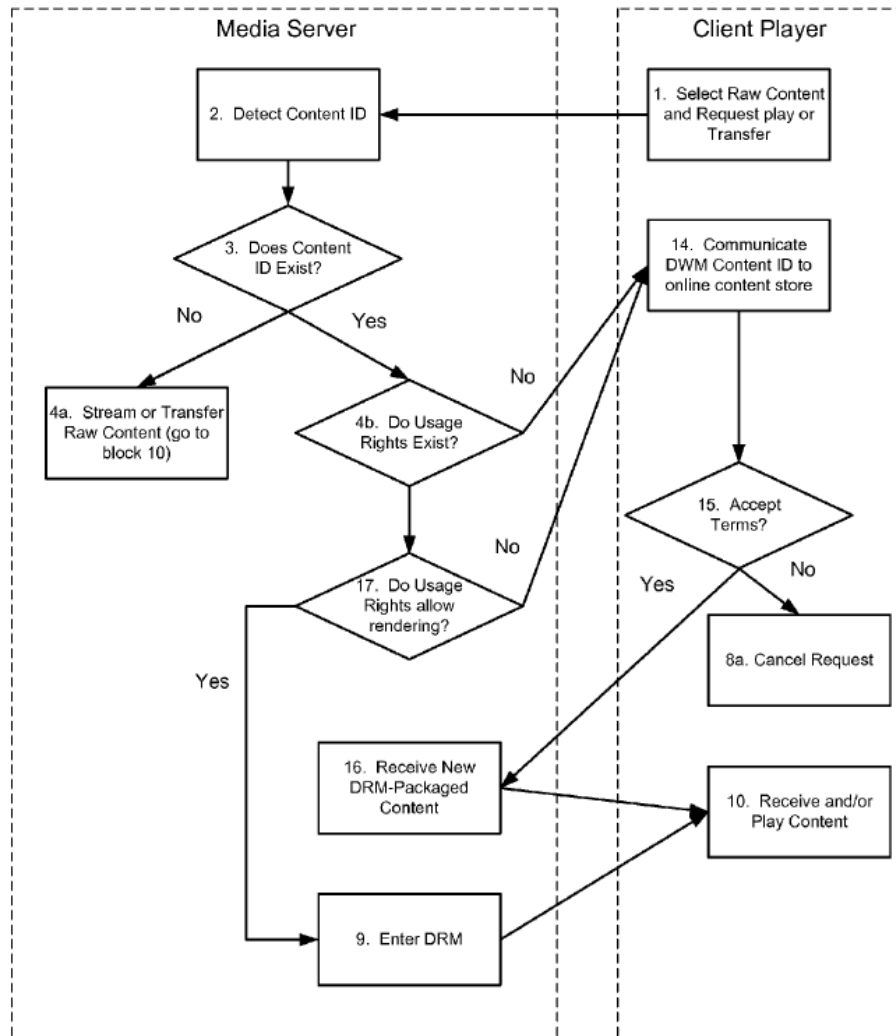


Fig. 17d

EX1006, FIG. 17d.

When a “user selects raw content for playing,” the Media Server identifies a corresponding digital watermark (DWM) Content ID. *Id.*, ¶108. “Raw content”

includes files downloaded from a Peer-to-Peer (P2P) network or ripped from CDs.

Id., ¶107. The DWM Content ID may be a “fingerprint” and may be extracted using a fingerprinting algorithm. *Id.*, Abstract, ¶¶140-142, claims 19, 23, 26, 33, 39. A “fingerprint (e.g., a hash, derived signature or reduce-bit representation of content)” allows Levy’s system to “uniquely identify” media content. *Id.*, ¶140. Levy’s Media Server “calculates or derives a fingerprint of content” and uses the fingerprint to identify corresponding “Usage Rights.” *Id.* “Usage Rights” refers to a “License” and defines the conditions for playing the media content. *Id.*, ¶87.

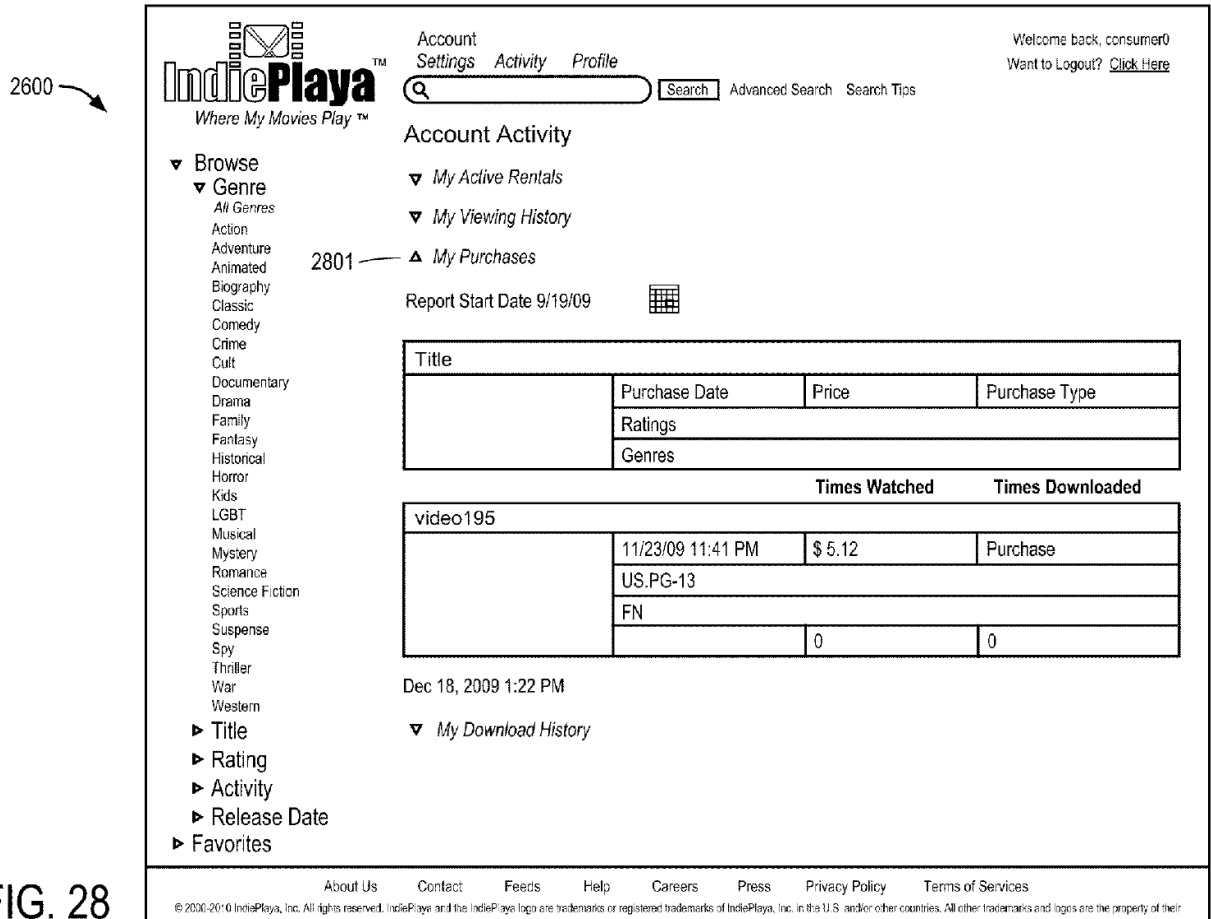
Levy’s Media Server identifies Usage Rights from a “Rights Registry” database that may be local to or remote from the Media Server. *Id.*, ¶¶90, 97-98. As seen in Figure 17d, Levy determines whether Usage Rights exist that allow playing of the media. *Id.*, ¶115. “If not, the Media Server is directed to an online content store.” *Id.* The online store then presents an offer for the user to purchase a license to the content. *Id.*, ¶112. “The user can accept or reject the Usage Rights.” *Id.*, ¶110. If the user declines, the Client Player Application “prohibits access” to the file. *Id.* If the user accepts, “the content is played.” *Id.*; EX1002, ¶¶137-48.

C. A POSA Would Have Combined Brandstetter and Levy.

1. A POSA would have been motivated to improve Brandstetter’s content licensing platform with Levy’s content identification and fingerprinting framework.

Brandstetter and Levy each disclose many of the claimed features. A POSA would have generally been motivated to combine various features of Brandstetter with Levy to (1) provide an efficient mechanism for tracking purchased licenses, and (2) confirm adherence to license terms for downloaded media files. EX1002, ¶¶286-92. For example, a POSA would have known that Levy’s “Usage Rights” via “Content ID” or “fingerprint” features are the kind of tracking techniques that would aid in the management and control of purchased licenses and downloaded media. EX1006, ¶¶85, 87, 97, 112-13, 140-42; EX1002, ¶292.

First, combining Brandstetter and Levy would have resulted in a system that efficiently tracks purchased licenses. Brandstetter tracks user purchase history and indexing all “audience interaction” with Brandstetter’s platform. EX1004, ¶¶5-9, 130, FIGs. 27-44. For example, Brandstetter describes tracking user license purchases via active rentals and a download history, an example of which is illustrated in Figure 28 below. *See id.*, FIGs. 26-29, ¶166.



EX1004, FIG. 28.

Brandstetter uniquely identifies the content using a “globally constant description.” *Id.*, ¶118. And this tracking helps with “marketing and distribution strategies for media content.” *Id.*, ¶¶7, 66; EX1002, ¶¶288, 355. A common way to uniquely track purchased media content would be using a unique content identifier. EX1002, ¶¶60-66, 137-40, 289-92. Levy explicitly recites such techniques, including the use of watermarks and digital fingerprints (e.g., “Content ID”). EX1006, ¶¶10, 14, 58-66, 85, 140. A POSA would have been motivated to combine these techniques with Brandstetter to efficiently track user purchases and

identify previously obtained media content. *Id.*, ¶¶58-66; EX1002, ¶¶289-92. A fingerprint is a compact, “reduce-bit representation of content” and therefore provides fast and computationally efficient comparisons. EX1006, ¶142; EX1002, ¶¶292, 390, 432. Brandstetter-Levy would track licenses on a server platform as well as media files local to client devices using such fingerprints. EX1004, ¶¶77, 125, 145, 166, 169, 173; EX1002, ¶289.

Levy’s techniques would even allow Brandstetter’s platform to distinguish between different versions of content using Content IDs and/or fingerprints rather than the full versions themselves. *See* EX1006, ¶142; EX1004, ¶6. Thus, implementing Levy’s unique Content ID or fingerprinting would provide an efficient mechanism for organizing purchased licenses. EX1002, ¶292.

Second, combining Levy with Brandstetter would aid in confirming adherence to license terms for downloaded media files. EX1002, ¶293. While Brandstetter offers licenses to download, a POSA would have recognized that content creators would not want licensees to freely distribute downloaded files due to revenue stream harms. EX1002, ¶¶293-94; EX1006, ¶¶13, 66; EX1004, ¶¶4-5, 77, 125, 145, 166. Combining Levy’s Content ID or fingerprint checking to control access via Usage Rights would help to prevent unauthorized access to media content. EX1002, ¶295; EX1006, ¶¶106-14. A POSA would have been motivated to implement such control with Brandstetter to prevent the unauthorized

distribution of downloaded media content items and to further allow content creators to secure revenue streams. EX1004, ¶¶4-5; EX1002, ¶¶295-96.

2. A POSA would have known how to combine Brandstetter and Levy and would have had a reasonable expectation of success.

A POSA would have known how to combine Brandstetter and Levy and would have had a reasonable expectation of success. EX1002, ¶297. A POSA would have implemented Levy's purchase and license tracking and fingerprinting and DWM techniques with Brandstetter to distribute licensed content. EX1006, ¶¶56-73, 76-79. The combined system would manage different rentals and/or purchases and control downloaded content. *See* Section IX.C.1; EX1002, ¶¶298-99; EX1004, ¶¶77, 125, 145, 166, 169, 173.

Both Brandstetter and Levy describe conventional server systems for managing digital media files. EX1004, ¶¶90-101; EX1006, ¶¶17, 49-57. A POSA would have therefore easily selected the relevant technology described by the references and have used well-known computer programming techniques to create an algorithm that implements the alleged invention. EX1002, ¶¶298-99. Combining Brandstetter and Levy would have thus amounted to nothing more than combining known prior art elements according to known methods to yield predictable results and applying a known technique to a known device ready for improvement to yield predictable results. EX1002, ¶¶49-76, 295-99.

D. Brandstetter-Levy Discloses Claim 1.

1. [1P].

To the extent the preamble is limiting, Brandstetter provides a “platform by which a plurality of content providers can market and distribute media content to users.” EX1004, ¶¶6, 8, 10. Brandstetter’s “client device 111” discloses the claimed “multimedia hardware device.” EX1004, ¶¶91, 92, 102-110, FIG. 1C; EX1002, ¶¶300-03.

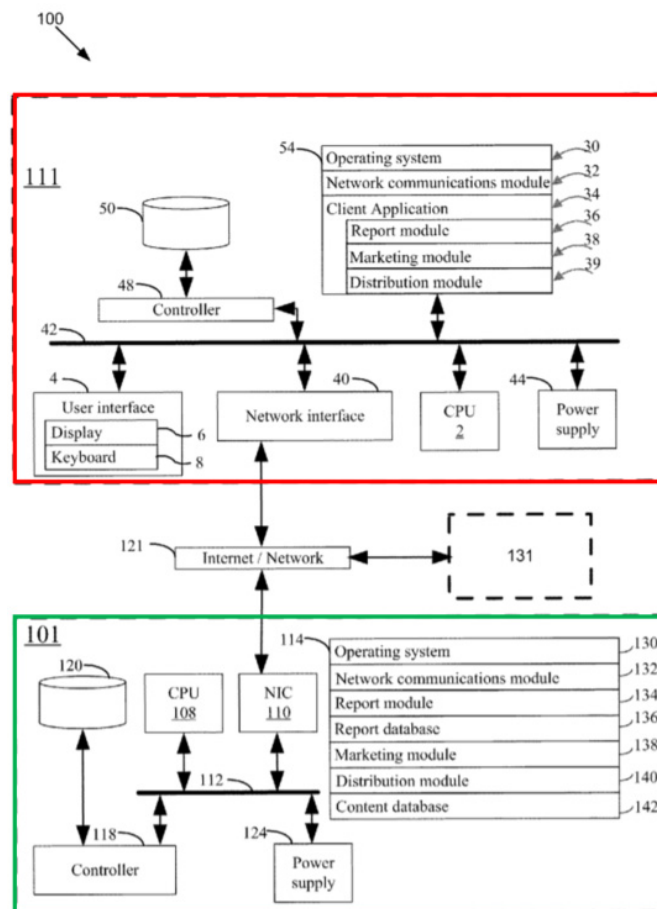
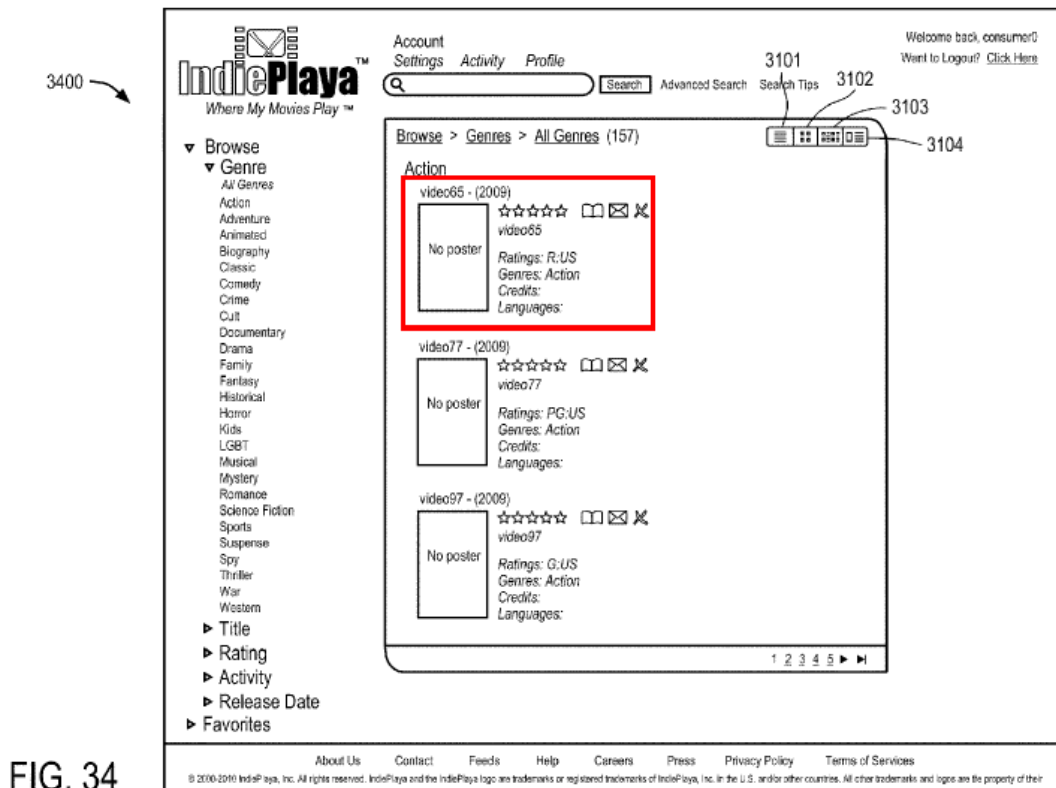


FIG. 1C

EX1004, FIG. 1C (annotated).

Server 101 distributes media content to the “user’s computer” client device 111 over the Internet or network 121. *Id.*, ¶¶69, 90-101. This distribution includes reproducing a media content item included in a digital media file. EX1002, ¶304; EX1004, ¶¶67, 69, 118, 173, FIG. 2. Brandstetter provides these content items when a license is purchased and therefore discloses generating authorized reproductions. EX1002, ¶¶305-06; EX1004, ¶¶93-99. Brandstetter also streams content, which also discloses reproducing media content items. EX1004, ¶¶69, 173, FIG. 2. Figure 34 depicts digital media files that may be streamed or downloaded upon acquiring a license. EX1004, ¶¶71, 75, 77, 125, 145, 166, 169, 173, FIG. 29; EX1002, ¶¶307-11.



EX1004, FIG. 34 (annotated).

Levy also distributes media files like an “audio file.” EX1006, ¶¶54, 70, 81-92, 98, 109, 112; EX1002, ¶312. A POSA would have been motivated to combine Levy and Brandstetter. Section IX.C; EX1002, ¶¶286-99, 313-14.

As explained above, the context of claim 1 suggests that at least some of its limitations recited below would be practiced by the licensing system on the server. Section VI.D.1. Regardless, a POSA would have found it obvious that each of the claim steps could be performed either on Brandstetter’s server or its client devices. Brandstetter explains that “there may be little or no difference between the

architecture of the serving devices and the client devices,” and that “other embodiments that do not make use of a client-server architecture are possible.”

EX1004, ¶72; EX1002, ¶¶315-320.

2. [1A] “receiving a license request...to engage in a license transaction.”

Brandstetter’s platform receives a request to reproduce content when a user browses for content. EX1004, ¶¶66, 71, 75, 77, 141-147. Brandstetter provides an interface where a user can request content. *See generally id.*, FIGs. 25-36, ¶¶120-127 (describing scenarios where “a user exhibits an interest in licensing content”).

Figure 18 depicts a content creator interface for setting up purchase and rental licensing options for a content consumer. EX1002, ¶¶321-323.

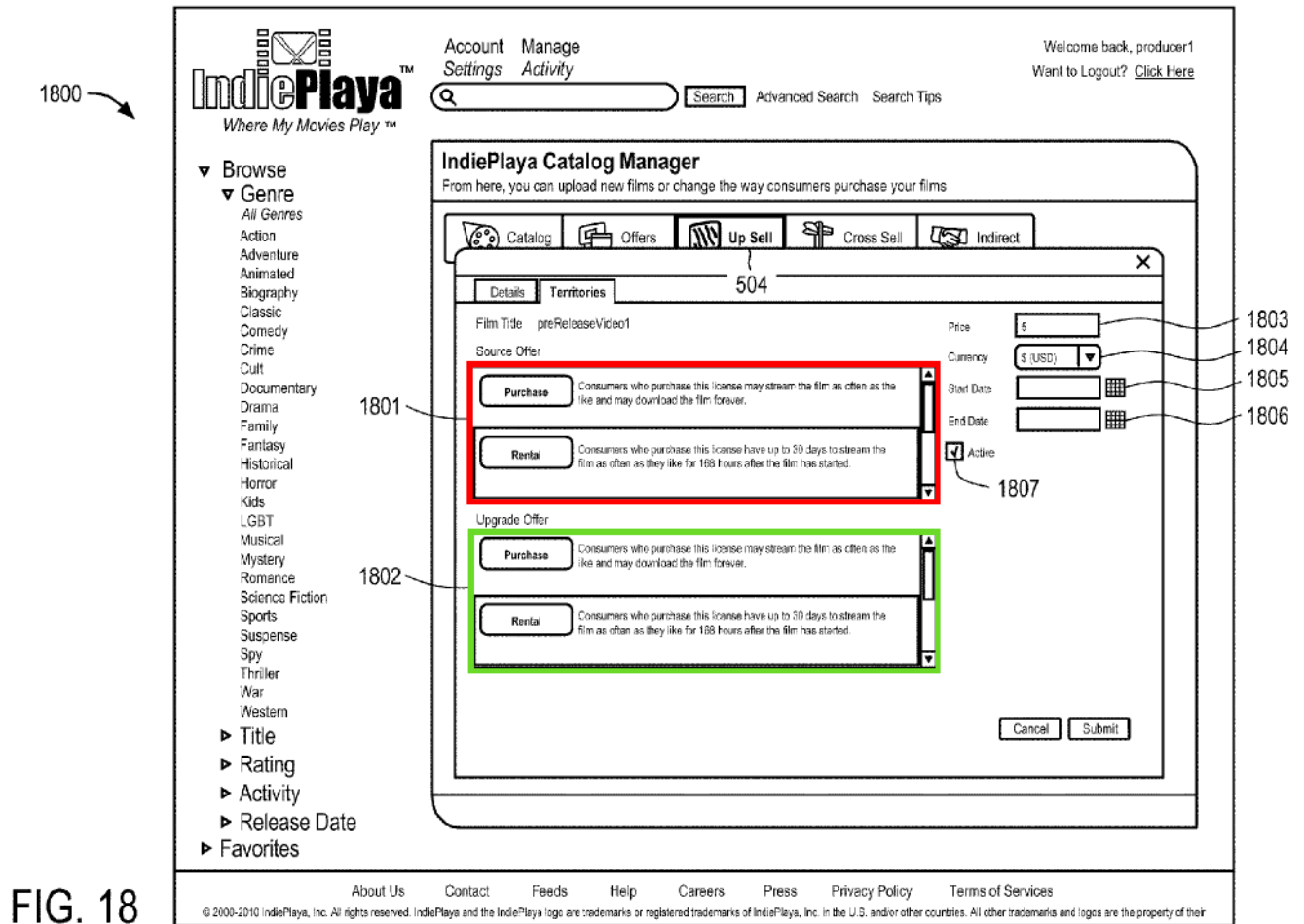
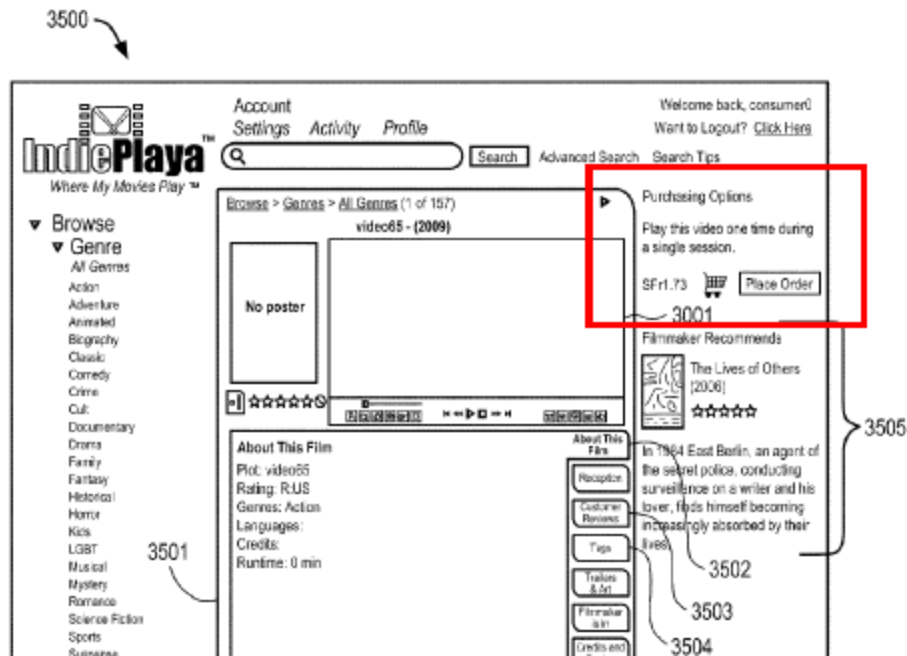


FIG. 18

EX1004, FIG. 18 (annotated).

Consumers select these licensing options when engaging in a license transaction to reproduce a media content item. EX1002, ¶¶323-325. For example, Brandstetter's server platform receives a license request when a user (1) accesses previously licensed content and/or (2) requests a purchase license and/or a rental license. EX1004, FIG. 18; EX1002, ¶¶323-325. Figure 35 depicts an example of the purchase option:



EX1004, FIG. 35 (excerpted, annotated).

When a user selects a rent or purchase option, Brandstetter receives a request to engage in a license transaction to reproduce the media content item. EX1004, ¶¶130, 137, FIGs. 35, 36; EX1002, ¶¶326-27.

Brandstetter-Levy also discloses a received license request when a media file is loaded at a user device. EX1002, ¶¶328-30, 383, 393. For example, Levy discloses loading a media file at a user device (i.e., “Media Server”) and also analyzing the media file to determine a “Content ID” or “fingerprint.” EX1006, ¶¶16-17, 85, 107, 140-42, 145-46; EX1002, ¶¶328-30, 342. When the Media Server does not identify Usage Rights (i.e., a license) that allows rendering, the Media Server transmits the Content ID to an “online content store.” EX1006,

¶¶109, 112-14, 117, FIG. 17d. The online store receives the Content ID as a licensing request and presents offers to purchase a license to the content. *Id.*, ¶112.

Levy's description of an online content store—such as Brandstetter's—also receives a license request containing a Content ID or fingerprint. *See* Sections IX.C-D.3; EX1006, ¶¶110, 112. A POSA would have been motivated to combine Brandstetter and Levy to provide a mechanism for determining whether access to digital media content is authorized based on a previously purchased license. *See* Section IX.C; EX1002, ¶¶286-99.

3. [1B] “evaluating the license transaction to determine whether the user has acquired a license.”

Brandstetter evaluates whether a user has already acquired a license when evaluating different rental packages. EX1004, ¶147. For example, in an unlimited rental package, a licensee “can play the content any number of times desired within a period of time.” *Id.* In another “play n-number of times licensing package,” the user “can only play the content n number of times.” *Id.* To track an active rental time period or a number of times played, Brandstetter would have evaluated the license transaction to determine a user's usage rights. EX1002, ¶¶331, 339-41. Brandstetter also performs this evaluation when a user is permitted to download content. EX1004, ¶¶71, 77, 125, 145, 166, 169, 173, FIG. 28.

Brandstetter also evaluates existing user rights and provides the requisite authorization to reproduce the requested media. *See*, EX1004, ¶¶77, 120-124.

Brandstetter also evaluates the license transaction to provide dynamic offers (e.g., up-sell, cross-sell) to the user. *Id.*; *see also id.*, ¶¶75, 87, 130; EX1002, ¶¶332-38. For example, Brandstetter identifies previously acquired licenses and offers an upgrade based on this evaluation (“up-sell”). EX1004, ¶¶75, 87, 119-126; EX1002, ¶¶332-38.

Levy also evaluates the license transaction to determine whether the user has acquired a license. *See* Section IX.D.2. Levy uses a “Content ID” or “fingerprint” to determine whether any corresponding “Usage Rights” (i.e., a license) already exist for a user. EX1006, ¶¶16-17, 85, 87 107, 110, 140-42, 145-46; EX1002, ¶¶342-44. Levy’s Media Server interrogates a “Rights Registry” with a Content ID to “determine whether there are any associated Usage Rights.” EX1006, ¶110. This discloses the claimed “evaluating.” EX1002, ¶¶342-44.

When the Media Server does not identify Usage Rights that allow rendering, the Media Server transmits the Content ID to an “online content store.” EX1006, ¶¶109, 112-14, 117, FIG. 17d. The online store performs another check using the Content ID and therefore discloses another instance of the claimed “evaluating.” EX1002, ¶¶328-29, 343-44, 393-94; Sections IX.D.2, IX.E.

4. [1C] “...extracting from the license transaction user data...wherein the user data includes demographic data...that enables a copyright owner...to gauge a demographic that acquired the license...and a demographic that declined the license.”

Brandstetter records user demographic data when users acquire or decline a license. EX1004, ¶¶65, 71, 83, 93, 130; EX1002, ¶¶345-50. Brandstetter extracts this user data for “marketing and distributing media content.” EX1004, ¶¶1-7.

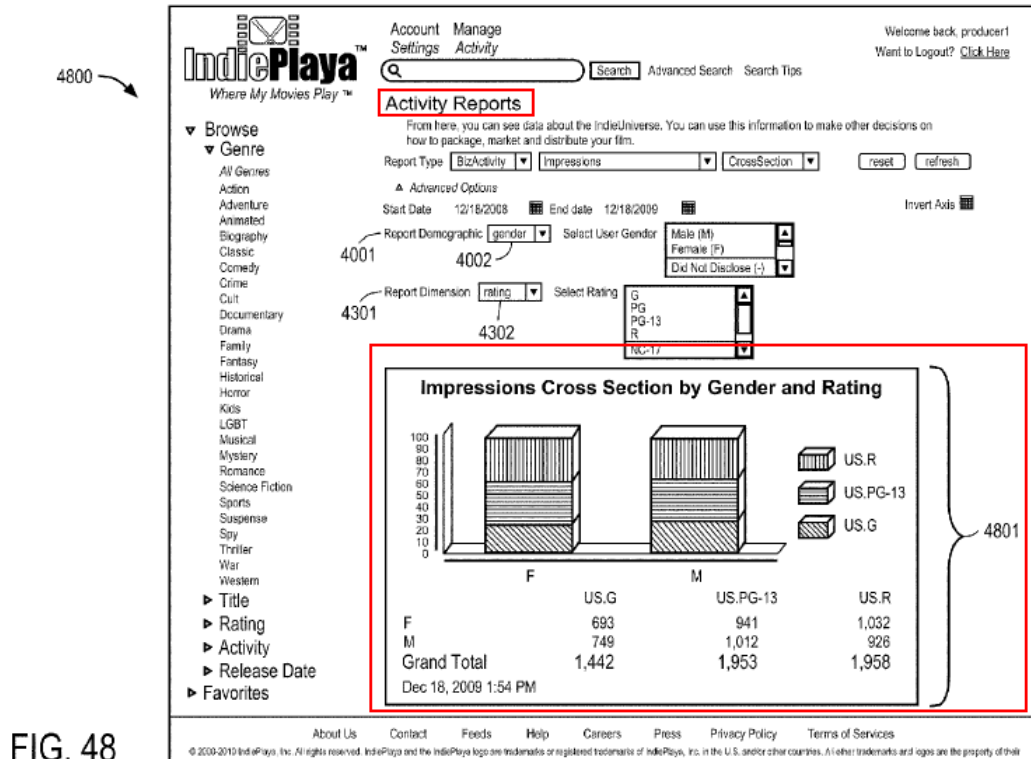
Brandstetter’s platform “collect[s] information about the users (e.g., their demographics) and user activity.” *Id.*, ¶¶65, 83, 130; EX1002, ¶348. This includes “ages, geographical locations, ethnicities, [and] genders.” EX1004, ¶71.

Brandstetter tracks “all activity up to and including a purchase. Thus, *even if a purchase is not made*, data related to audience interaction with content on the website can be indexed and used for later analysis.” *Id.*, ¶130. Brandstetter extracts user data for rental and purchase licenses. *Id.*, ¶¶75, 77, 87, 119, 120, 123, 124, 126, FIG. 16; EX1002, ¶¶349-51. Brandstetter also discloses the decline of a license when a user chooses one license over another and tracking corresponding user data in this case as well. EX1004, ¶¶130, 169, 173; EX1002, ¶¶352-54.

Brandstetter records and provides this user data to empower content creators (e.g., copyright owner) to market and distribute content. EX1004, ¶¶4-5, 67; EX1002, ¶¶351, 357.

Brandstetter's "report module 134" summarizes the user demographic data to generate "activity reports." EX1004, ¶96; EX1002, ¶¶355-62. These activity reports reflect any and all user activity on the platform. EX1004, ¶65.

Brandstetter's Figures 40-49 illustrate examples of such reports.



EX1004, FIG. 48 (annotated).

"FIGS. 40-49 show exemplary interfaces for interacting with content to generate and display reports." *Id.*, ¶174. The reports may provide "graphic interpretations (e.g., scatter plot, pie chart, bar chart, etc.) of the selected content." *Id.* For example, Figure 48 illustrates a "bar chart graphic interpretation 4801" of content reflective of "collect[ed] information about the users...compiled into

reports for use by content creators” (e.g., copyright owners). *Id.*, ¶¶65, 174; EX1002, ¶¶359-62.

5. [1D] “aggregating the user data into a statistics record...when the user acquires the license and when the user declines the license.”

Brandstetter discloses the claimed “aggregating” for the reasons explained for claim element [1C]. EX1004, ¶¶65, 74, 85, 86, 93, 130; Section IX.D.4. Brandstetter’s platform aggregates user demographic data. EX1003, ¶71; Section IX.D.2. Such data is used to generate “intelligence” and “*statistics*” for particular users. EX1004, ¶¶132-33, 172. The “intelligence” and/or “statistics” disclose the claimed “statistics records.” EX1002, ¶¶363-65. Brandstetter uses these “statistics” to generate activity reports. *Id.*; *see* Section IX.D.7. Brandstetter tracks user data when a user both accepts *and* declines to license content. *See* Section IX.D.4; EX1004, ¶130. Thus, Brandstetter aggregates data in both instances. EX1002, ¶365.

6. [1E] “storing in a license database the statistics record so that the user data is accessible to the copyright owner.”

Brandstetter stores user activity and demographic data to build statistics and reports for content providers. *See* Sections IX.D.4-5. Brandstetter stores these statistics for subsequent retrieval when generating activity reports. EX1004, ¶¶74, 85, 93, 172, FIG. 1C; EX1002, ¶366. As depicted in Figure 1C, “report module

134” within memory 114 collects user data, stores this data in report database 136, and then generates activity reports.” EX1004, ¶96.

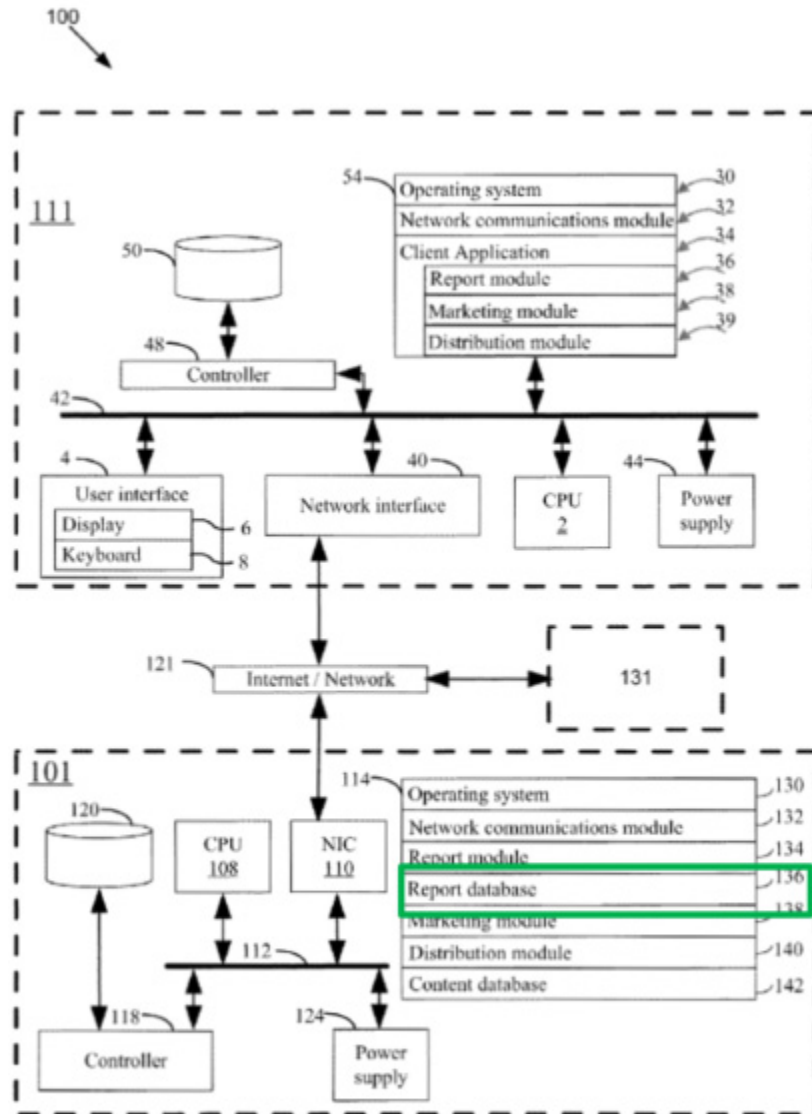


FIG. 1C

EX1004, FIG. 1C (annotated).

Brandstetter therefore uses the same memory 114 to store report information and to store license data. EX1004, ¶¶92-93, 96, 98; EX1002, ¶¶367-70. Thus, Brandstetter stores the statistics record in a “license database.”

Brandstetter already suggests the storage of user data using memory 114 that includes license information. EX1004, ¶¶92-93, 96, 98. Thus, when combining Levy with Brandstetter, a POSA would have found it obvious to store the user data with the licensing information described in Levy. EX1002, ¶371; Section IX.C.

7. [1F] “analyzing a plurality of statistics records...to provide the copyright owner with the aggregated user data.”

Brandstetter’s process leading to the generation of “activity reports” discloses the analysis of a plurality of statistics records. *See* Sections IX.D.4-6; EX1002, ¶372. Brandstetter’s “report module 134” analyzes the aggregated data to generate reports and to identify a user demographic for targeted marketing of media content. EX1004, ¶¶6, 77. Brandstetter analyzes the indexed site activity to generate statistics for particular users and to generate reports for copyright owners. *Id.*, ¶¶6, 8-10, 130, 132-33, 172; EX1002, ¶¶372-75. The reports contain “historical information regarding purchases...*by one or more demographic groups.*” EX1004, ¶6, FIG. 48.

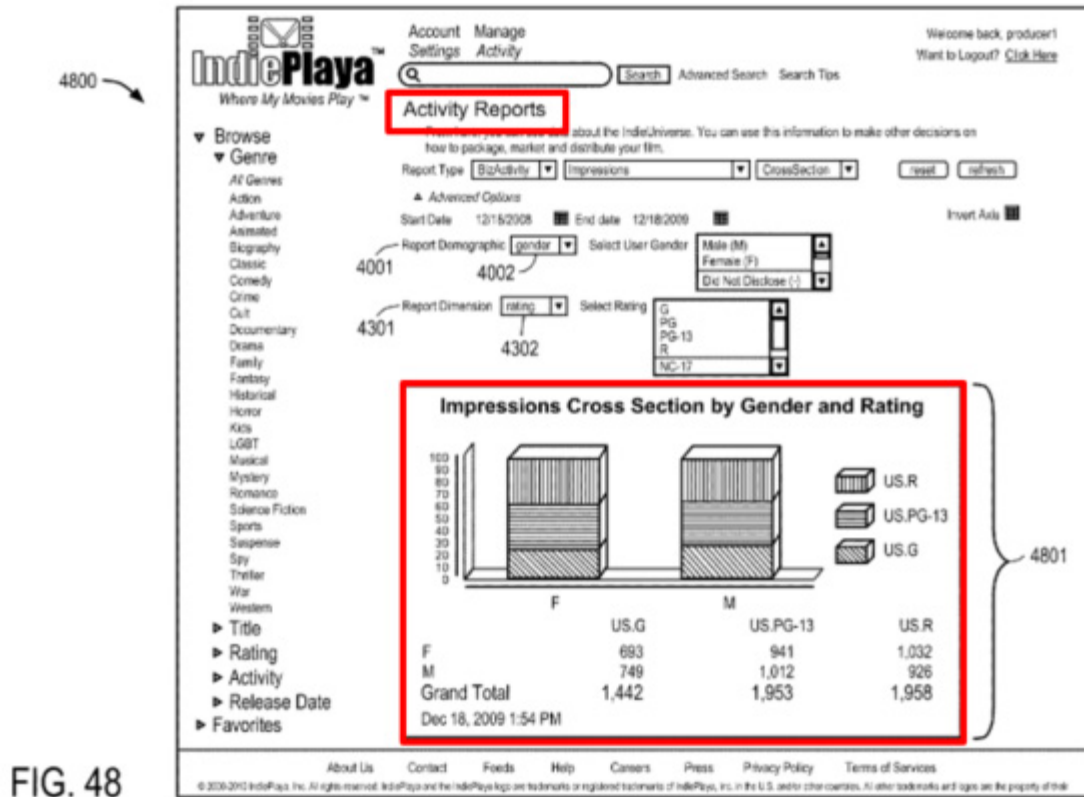


FIG. 48

EX1004, FIG. 48 (annotated).

Figure 48 shows an example report that provides gender information, but Brandstetter's reports can also categorize other user demographic and interaction data. *Id.*, ¶¶173-74, 179; EX1002, ¶¶376-379. Brandstetter describes a demographic of individuals who accept and who decline to stream content. EX1004, ¶130. A POSA would have understood that Brandstetter's reports therefore analyze user data for both categories of users. EX1002, ¶¶378-79.

E. Claim 7.

Claim 7 is materially similar to claim 1. Section VI.E Again, the claim steps need not occur at any particular device. Section IX.D.1. Thus, Brandstetter-Levy

renders claim 7 obvious for the reasons presented in claim 1 and as further explained below. EX1002, ¶¶380-397.

[7P]	Section IX.D.1 ([1P]).
[7A]	Section IX.D.2 ([1A]).
[7B]	Section IX.D.3 ([1B]).
[7C]	Section IX.D.4 ([1C]).
[7D]	Section IX.D.5 ([1D]).
[7E]	Section IX.D.6 ([1E]).
[7F]	Section IX.D.7 ([1F]).

Regarding the “media content licensing and verification system” in [7P], Brandstetter’s server 101 discloses this claimed system. EX1002, ¶381; EX1004, ¶¶67, 69, 90-101 118, 173, FIG. 1C.

Brandstetter-Levy also discloses accessing a “media catalog database” to identify a “media content record” to identify requested media content. Brandstetter-Levy’s identification of licensing rights for specific media discloses this same content identification as further explained below. Therefore, Brandstetter-Levy discloses a “media catalog database” containing a “media content record” based on the tracking of content and corresponding licenses. EX1002, ¶¶382-97. Likewise, Brandstetter-Levy disclose a “license database.” Section IX.D.6; EX1002, ¶369.

Levy discloses loading a media file at a user device (*i.e.*, “Media Server”) and also analyzing the media file to determine a “Content ID” or “fingerprint.” EX1006, ¶¶16-17, 85, 107, 140-42, 145-46; Section IX.D.2-3. Levy’s Media

Server detects the loading of raw content and determines a corresponding Content ID. EX1006, ¶¶35, 83-84, 89, 108-09. Levy then identifies corresponding Usage Rights if available. *Id.*, ¶¶109, 112-14, 117, FIG. 17d. Levy also describes an online content store receiving a media licensing request that includes digital media information. EX1002, ¶¶141, 328, 393-94. Levy's "online store uses the DWM Content ID to interrogate [the] DWM database" to determine purchase options. EX1006, ¶112, FIGs. 17c, 17d. Levy offers the purchase options to the user. The user's decision of whether to accept the terms of the licenses then causes the "granting" recited in the claim element or the "declining" recited in the claim element. EX1002, ¶¶395-96.

Additionally, Levy's description of a "Rights Registry" database or "Fingerprint Rights Registry" also discloses the claimed "media catalog database." EX1006, ¶¶17, 113, 140, FIG. 18. Levy accesses a Rights Registry to identify Usage Rights. *Id.*, ¶¶97, 114. This discloses [7A]. EX1002, ¶397. The storage of Usage Rights with a corresponding Content ID or fingerprint discloses the claimed "media content record" because the Content ID/fingerprint identifies media content and corresponding Usage Rights. EX1002, ¶¶59-61, 397. Levy further offers "Usage Rights" to a user to accept or decline, which also discloses claim element [7B]. EX1006, ¶¶17, 110, 120; EX1002, ¶¶410-11. Likewise, Brandstetter-Levy discloses a "license database." Section IX.D.6; EX1002, ¶¶366-371.

F. Claim 13.

Independent claim 13 claims a “system” that performs substantially the same method recited in claim 1. Brandstetter-Levy thus renders obvious claim 13 for the reasons presented in claim 1. EX1002, ¶¶398-99.

[13P]	Section IX.D.1 ([1P]).
[13A]	Section IX.D.2 ([1A]).
[13B]	Section IX.D.3 ([1B]).
[13C]	Section IX.D.4 ([1C]).
[13D]	Section IX.D.5 ([1D]).
[13E]	Section IX.D.6 ([1E]).
[13F]	Section IX.D.7 ([1F]).

Claim 13 additionally recites “a memory coupled to a processor” in [13P]. Brandstetter discloses “a memory.” In particular, Brandstetter states that the server contains “a memory 114” that stores the operating system and software required to carry out Brandstetter’s server-side tasks. EX1004, ¶¶92-99. Brandstetter and Levy both disclose processors configured to perform the method steps described in claim 1. *Id.*, ¶¶92, 180-83; EX1006, ¶¶9, 83-84, 114, 150; EX1002, ¶¶398-99.

G. Claim 19.

Brandstetter-Levy discloses claim 19 for the reasons presented in claim 7. Independent claim 19 claims a “system” that performs substantially the same method recited in claim 7. EX1002, ¶¶400-406.

[19P]	Sections IX.D.1, IX.E ([1P], [7P]).
[19A.1]	Sections IX.D.2, IX.E ([1A], [7A]).
[19A.2]	See below.

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[19B]	Sections IX.D.4-6, IX.E ([1D]-[1E], [7C]).
[19C]	Sections IX.D.3-4, IX.E ([1C], [7C]).
[19D]	Sections IX.D.5, IX.E ([1D], [7D]).
[19E]	Sections IX.D.6, IX.E ([1E], [7E]).
[19F]	Sections IX.D.7, IX.E ([1F], [7F]).

Claim 19 additionally recites a “transceiver” and “a memory coupled to a processor.” Regarding [19A.1], Brandstetter and Levy disclose transceivers that facilitate Internet communications. EX1002, ¶¶401-05. Brandstetter discloses bi-directional communication over a network such as the Internet as seen in Figure 1C—“network or other communications interface (NIC) 110” discloses the claimed “transceiver.” EX1004, ¶¶92-93; EX1002, ¶¶401-03.

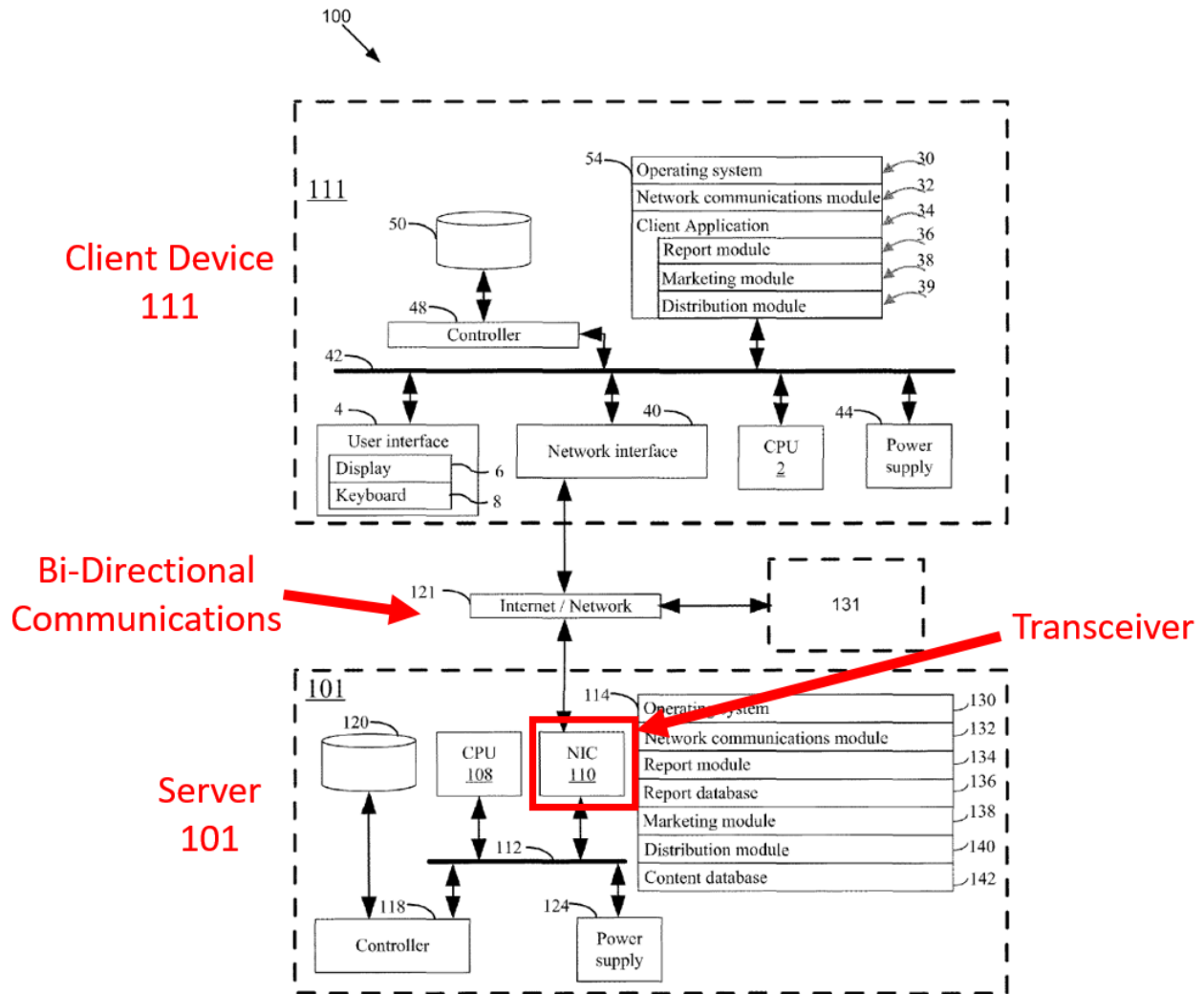


FIG. 1C

EX1004, FIG. 1C (annotated).

Levy also describes bi-directional communications between a media server and an online content store. For example, Levy describes the Media Server transmitting an identified Content ID to the online content store and receiving license offers. EX1006, ¶¶109, 112-14, 117, FIG. 17d. This demonstrates bi-

directional communications between the media server and the online content store. EX1002, ¶¶401-05; EX1006, ¶¶50-51, 64, 97, 121, FIG. 18. Thus, Brandstetter and Levy disclose the claimed “transceiver.”

Claim element [19A.2] recites “a memory coupled to a processor” implemented in the system of claim 16. Brandstetter discloses “a memory.” In particular, Brandstetter states that the server contains “a memory 114” that stores the operating system and software required to carry out Brandstetter’s server-side tasks. EX1004, ¶¶92-99. Both Brandstetter and Levy disclose processors configured to perform the method steps described in claim 7. *Id.*, ¶¶92, 180-83; EX1006, ¶¶9, 83-84, 114, 150; EX1002, ¶406.

H. Claims 2 and 14 (“receiv[ing] a license” and “prevent[ing] reproduction...when the licensing request is declined by the licensing system”).

Brandstetter-Levy discloses receiving a license when a licensing request is granted. EX1004, ¶¶87, 99, 166, FIGs. 26, 28. When a user purchases a license, the user account receives a license, which is tracked by Brandstetter’s platform. *Id.*; EX1002, ¶¶373, 382, 407-08. Brandstetter also prevents reproduction when the licensing request is declined. EX1002, ¶409; EX1004, ¶¶4-5.

Levy also discloses its “Media Server” receiving a license after a purchase has been made. EX1006, ¶¶98, 110, 112. Levy’s Media Server receives “DRM-packaged” content that is packaged with corresponding Usage Rights. *Id.*, ¶¶87,

98, 112. The Usage Rights are stored in a “DWM or re-linking Rights Registry,” which may be “stored locally on the Media Server.” *Id.*, ¶¶90, 97, 110. Therefore, Levy’s Media Server also receives a license. EX1002, ¶410. Levy also discloses preventing reproduction of media content when the licensing request is declined—the “Client Player Application preferably prohibits access.” EX1006, ¶110; Section IX.B. A POSA would have been motivated to use this feature of Levy’s system in Brandstetter’s platform to prevent contravention of Brandstetter’s licenses. EX1002, ¶¶411-12; EX1003, ¶¶2-5.

I. Claims 3 and 15 (“plurality of reproduction parameters”).

“Reproduction parameters” refer to the terms of a license. EX1002, ¶¶413-17. Brandstetter discloses reproduction parameters that would have been used in combination, such as tracking a “number of times” a content may be played as defined in a license. EX1004, ¶147. Brandstetter also varies licenses and their price based on video quality, bonus content, or downloadability. *Id.*, ¶¶75, 120, 125, 141. A POSA would have understood that Brandstetter would have used a plurality of reproduction parameters depending on the terms of the license obtained by the consumer. EX1002, ¶¶417.

Levy’s “copy control information (CCI)” bits also disclose reproduction parameters because they specify copy restrictions for streamed or copied media. EX1006, ¶¶37, 86, 122-23; EX1002, ¶¶418-19.

J. Claims 4, 10, 16, and 21 (storing user data such that it is “accessible to a third party online media retailer”).

Claims 4, 10, 16, and 21 are nearly identical and refer to allowing a “third party online media retailer” to access the stored user data. EX1002, ¶¶420-24. Brandstetter discloses “content providers” which disclose the claimed “third party online media retailer.” EX1004, ¶159; EX1002, ¶422. A “content provider is any third party granted the right to market or distribute...a content creator’s content.” EX1004, ¶¶159-60. Brandstetter also provides activity reports to the content providers. *Id.*, Abstract, ¶¶8-9. These reports include the user data that has been previously stored. *See* Section IX.D.6; EX1004, ¶¶6, 65, 71, 74, 85, 86, 93, 130, 174-79, FIGs. 40-49; EX1002, ¶¶422-24.

K. Claims 6 and 23 (“geographic location”).

Brandstetter discloses tracking geographic location information as part of the stored demographic user data. *See* Sections IX.D.4-7; EX1004, ¶¶71, 142-43, 174, FIG. 40. Figure 40 depicts an example of sorting the user data based on geographic location. EX1002, ¶¶425-27.

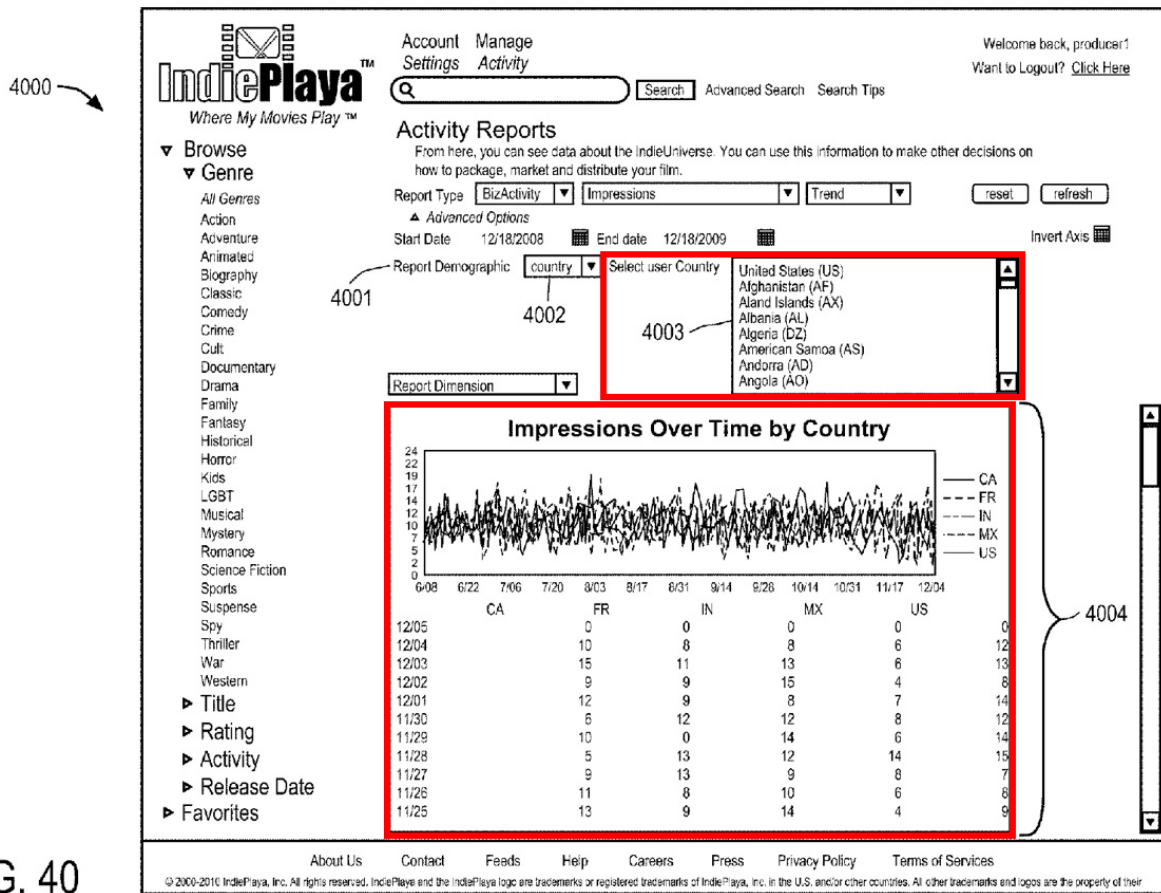


FIG. 40

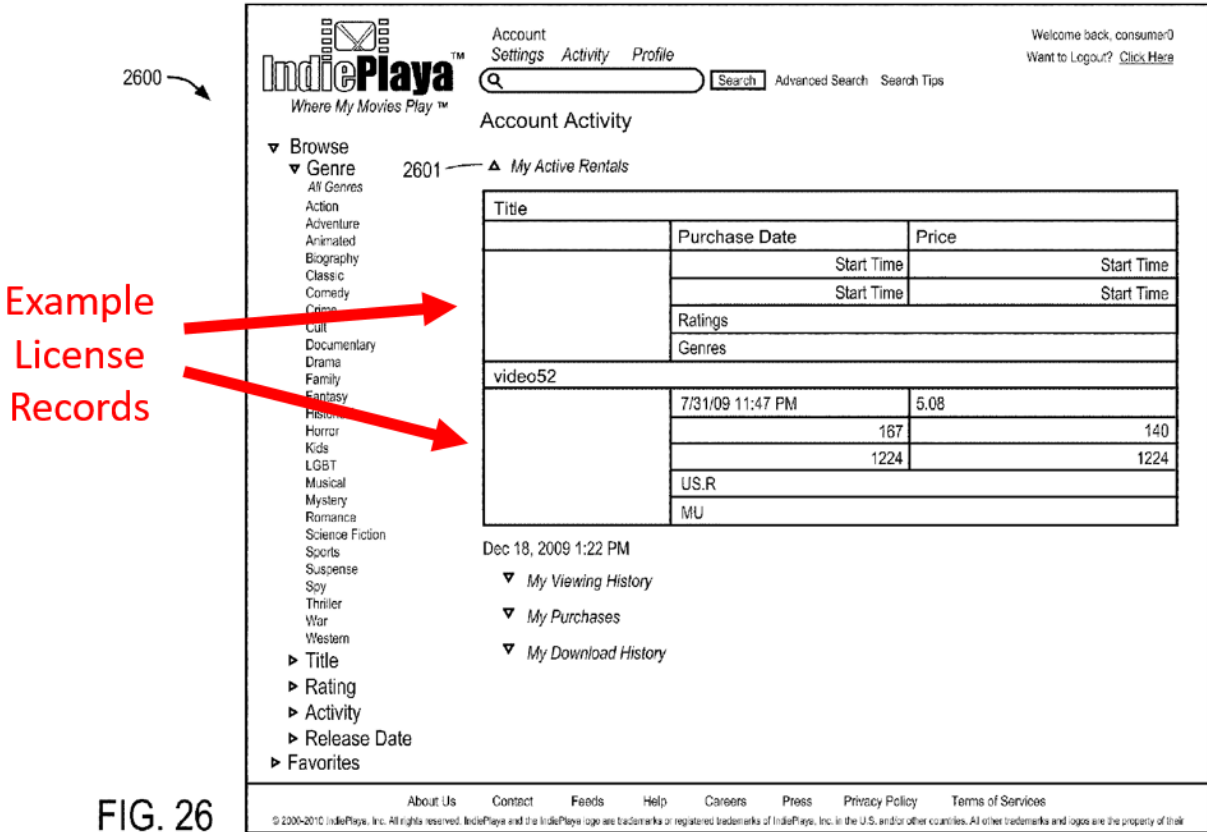
EX1004, FIG. 40 (annotated).

L. Claims 8 and 20 (generating and storing a “license record in a registered user database”).

Brandstetter-Levy discloses storing license information in a registered user database and granting licenses to user devices attempting to reproduce content. *See* Sections IX.D.3, IX.H; EX1002, ¶¶428-34.

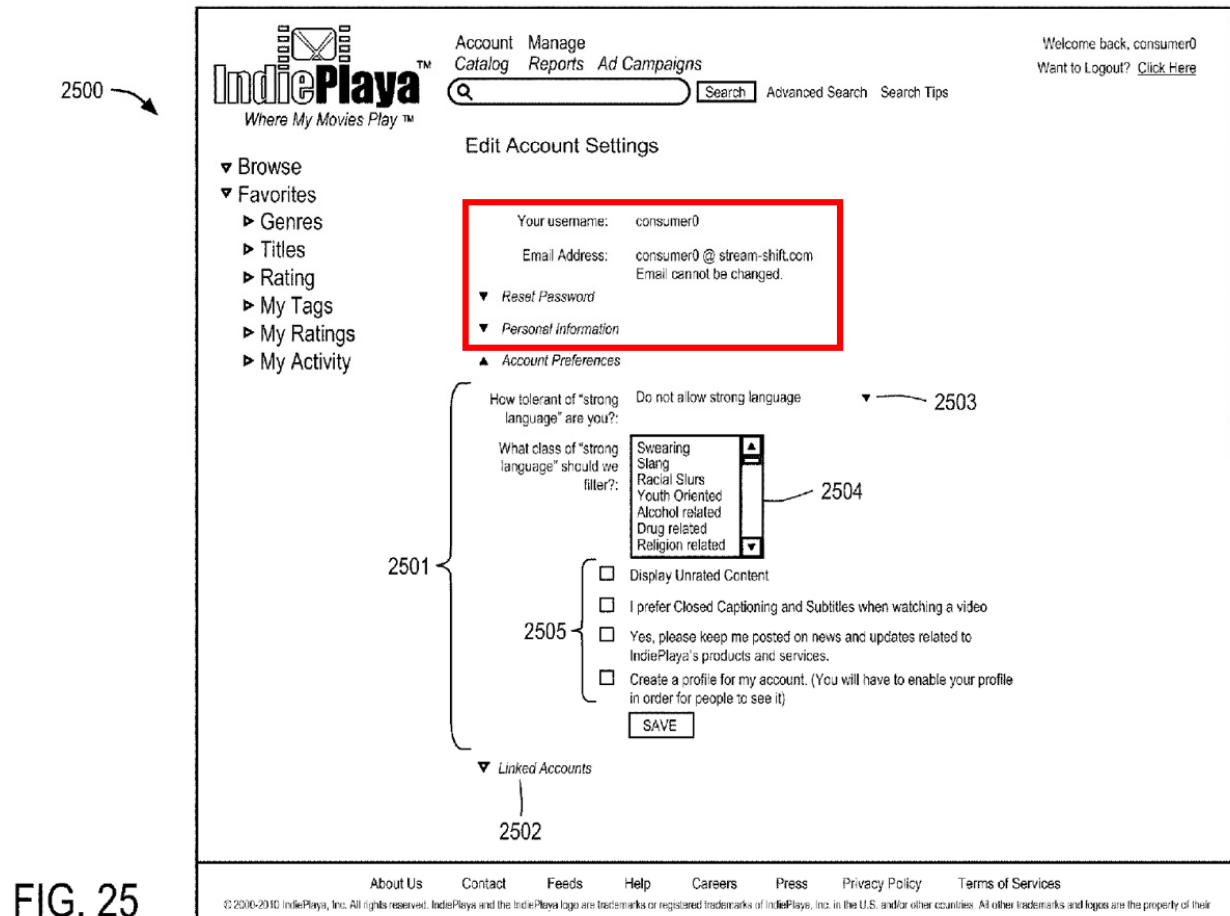
Brandstetter generates a license record and stores license records with user profiles in memory 114 and/or 120. EX1004, ¶¶92, 98-100, 166, FIG. 25; EX1002,

¶¶429-30. Users may then view their purchased licenses. EX1004, ¶166, FIGs. 26, 28.



EX1004, FIG. 26 (annotated).

Brandstetter also registers users as seen in Figure 25, which depicts an interface for creating/editing a profile with a user name and password. EX1004, ¶98; EX1002, ¶¶431-34.



EX1004, FIG. 25 (annotated).

Levy also updates a registered user database when a user purchases a license via an online content store. EX1006, ¶¶52, 101. “The Media Server/User will typically maintain an account with the online store.” *Id.*, ¶¶112, 114; EX1002, ¶433. Levy also stores purchased license information, by updating a “DRM Rights Registry.” EX1006, ¶101; EX1002, ¶¶433-34.

M. Claim 9 (“fingerprint”).

Levy discloses digital media information including a “fingerprint” associated with the media content item. *See* Sections IX.D.2-3, IX.E; EX1006, Abstract, ¶¶140-42; EX1002, ¶¶435-40.

N. Claims 12 and 18 (user data includes “quantity of times” and “additional media content items” previously accessed).

Brandstetter discloses identifying “additional media content items” that a user has previously accessed. EX1002, ¶¶441-43; EX1004, ¶¶71, 123. Brandstetter’s description of “cross-sell[ing]” and offering secondary content also discloses tracking additional media content that a user has previously accessed, “(e.g., if you like A, you can buy A and B together for \$10.00).” EX1004, ¶¶150-53.

Brandstetter also tracks a quantity of times that the user has previously accessed the media content item. *Id.*, ¶147. For example, this is tracked when enforcing a “play n-number of times licensing package.” *Id.*; EX1002, ¶444.

X. GROUND 5: CLAIMS 5, 11, 17, AND 22 ARE OBVIOUS OVER BRANDSTETTER, LEVY, AND VIJAY.

Claims 5, 11, 17, and 22 are nearly identical and describe storing user data such that it is “accessible to a hardware device manufacturer.” Vijay discloses hardware device manufacturers that provide DRM protection as explained in Section VIII. EX1002, ¶¶149-51, 445-49; EX1008, ¶¶2-3, 22-23, 25, 27, 45-46, FIG. 1. Brandstetter-Levy-Vijay discloses providing user data to a “hardware

device manufacturer.” A POSA would have found it obvious to allow a DRM device manufacturer to access Brandstetter’s reports to provide additional “secure, dynamic device profiling” prior to decrypting content for reproduction. EX1008, ¶¶29, 34, 39, 56, 60, 73-76. For example, Brandstetter-Levy-Vijay could use a consumer’s geographic location information to confirm an expected user device prior to decrypting content for reproduction. EX1002, ¶¶446-50. A POSA would have been motivated to combine Vijay with Brandstetter and Levy to provide this additional security. EX1002, ¶451.

XI. PETITIONER IS UNAWARE OF ANY SECONDARY CONSIDERATIONS OF NON-OBVIOUSNESS.

Petitioner is unaware of any alleged evidence of secondary considerations, or that PO has made any non-conclusory assertions of any secondary considerations of non-obviousness.

XII. THE BOARD SHOULD NOT EXERCISE ITS DISCRETION TO DENY THIS PETITION BASED ON EITHER 35 U.S.C. § 314(A) OR § 325(D).

The Board should not deny the Petition under §314(a) because the *Fintiv-NHK* factors weigh in favor of institution. The Board should also not deny the Petition under §325(d) because there are no previous pending cases involving the ’590 patent at the USPTO, and, with the exception of Pou, the prior art applied here has never been considered by the USPTO.

A. The Board Should Not Use its Discretion to Deny the Petition Under 35 U.S.C. § 314(a).

1. This case is at its very earliest stages.

The Board should understand the strong merits of this Petition. The *Apple v. Fintiv* factors weigh strongly against the Board's exercise of discretion to deny review.

On January 8, 2021, PO filed a lawsuit against Petitioner asserting the '590 patent in the Western District of Texas. EX1064. PO did not serve Petitioner with notice of the lawsuit until January 19, 2021. EX1069. Thus the triggering date for 35 U.S.C. § 315(b) is January 19, 2022. On December 7, 2021, the case was transferred to the Northern District of California. EX1065. This occurred before any significant investment in the proceeding and prior to the submission of any claim construction briefing. EX1066, 1. Following transfer, a case management conference has been scheduled for March 15, 2022, but no other deadlines have been set. EX1071. And, on average, patent cases in the Northern District of California take nearly three years to get to trial. EX1080. Thus, given the scheduling uncertainty, the *Fintiv* factors weigh in favor of institution.

(a) Factors 1 and 2 weigh in favor of institution.

The Board has recognized that even cases with schedules are unpredictable. *Sand Revolution II, LLC v. Continental Intermodal Group—Trucking LLC*,

IPR2019-01393, Paper 24 at 9 (P.T.A.B. June 16, 2020). Given the speculative nature of any schedule in this case, factor 2 weighs heavily in favor of institution.

Factor 1 is neutral. *VMware, Inc. v. Intellectual Ventures II LLC*, IPR2020-00859, Paper 13 at 12 (P.T.A.B. Nov. 5, 2020).

(b) Factors 3-5 weigh in favor of institution.

Given that no case schedule has yet been set, by the time of institution, the investment in the co-pending district court litigation will have been minimal, with *Markman* briefing unlikely to have been completed at that time. *Fintiv* factor 3 therefore weighs against denial.

It is unclear at this stage whether there will be any overlap with the issues raised in the Petition. However, Petitioner represents that, if instituted, it will not rely in district court on IPR prior art references asserted in any ground here. Thus, *Fintiv* factor 4 weighs against denial.

The IPR parties are the same as in the litigation. Weighing this factor against institution prejudices Petitioner merely for being sued. The Board should therefore consider *Fintiv* factor 5 neutral.

(c) Factor 6 weighs in favor of institution.

The strength of the merits weighs heavily in favor of institution as fully laid out above.

Thus, the *Fintiv* factors weigh in favor of institution.

2. The Board should not avoid the merits of the case under *General Plastics* because there is only one pending petition.

The Board should not exercise discretionary authority under § 314(a). There have been no previous or current IPRs, reexams, or reissues involving the patent. Therefore, *General Plastics* does not provide a basis to deny the Petition.

B. This Case Does Not Implicate § 325(d) as a Basis for Denial.

The Board analyzes discretionary denial under § 325(d) using the *Advanced Bionics* factors. These factors address whether the IPR seeks a “do-over” of examination of the patent. Here, the primary references (Peled and Brandstetter)—which disclose the alleged point of novelty—were never considered by the USPTO. While the Examiner identified Pou, Pou was never discussed in an Office Action or applied in any rejection. EX1009, 0157-183. Thus, the art combinations and arguments presented in this Petition are new and non-cumulative.

XIII. MANDATORY NOTICES (37 C.F.R. § 42.8(A)(1))

A. Real Party In Interest (37 C.F.R. § 42.8(b)(1))

The real party-in-interest is Petitioner Roku, Inc.

B. Related Matters (37 C.F.R. § 42.8(b)(2))

The '590 patent was at issue in a district court litigation proceeding captioned *Media Chain, LLC v. Roku, Inc.*, Case No. 1:21-cv-00027 (WDTX), filed January 8, 2021. On December 7, 2021, the case was transferred to the

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Northern District of California, Case No. 3-21-cv-09528 (NDCA), and is currently pending.

U.S. Patent Nos. 9,898,590, 10,657,226, 10,515,191, 10,860,691, 10,885,154, 10,650,120, and 10,489,560 claim the benefit of U.S. Patent No. 9,715,581 (the '581 patent). Pending U.S. Patent Application Nos. 16/877,349 and 16/877,360 also claim the benefit of the '581 patent.

Petitioner is concurrently filing petitions for *inter partes* review against the '581 patent (IPR2022-00389) and U.S. Patent Nos. 10,489,560 (IPR2022-00391), 10,515,191 (IPR2022-00392), 10,860,691 (IPR2022-00393), and 10,885,154 (IPR2022-00394), which were also asserted in the *Media Chain, LLC v. Roku, Inc.* district court litigation proceeding.

C. Lead and Back-up Counsel (37 C.F.R. § 42.8(b)(3))

Pursuant to 37 C.F.R. § 42.8(b)(3) and 42.10(a), Petitioner appoints **Lestin L. Kenton** (Reg. No. 72,314) as lead counsel. Additionally, Petitioner appoints **Jon E. Wright** (Reg. No. 50,720), **Nirav N. Desai** (Reg. No. 69,105), **Richard A. Crudo** (Reg. No. 65,245), and **Timothy L. Tang** (Reg. No. 75,187) as back-up counsel, at the address: Sterne, Kessler, Goldstein & Fox P.L.L.C., 1100 New York Avenue, N.W., Washington, D.C., 20005, phone number (202) 371-2600, and facsimile (202) 371-2540.

D. Service Information (37 C.F.R. § 42.8(b)(4))

Petitioner consents to electronic service by email at: **lkenton-PTAB@sternekessler.com, jwright-PTAB@sternekessler.com, ndesai-PTAB@sternekessler.com, rcrudo-PTAB@sternekessler.com, ttang-PTAB@sternekessler.com, and PTAB@sternekessler.com.**

XIV. STANDING (37 C.F.R. § 42.104(a))

Petitioner certifies that the '590 patent is available for IPR, and that Petitioner is not barred or estopped from requesting an IPR of the '590 patent. The assignee of the '590 patent, Media Chain, LLC, served a complaint against Petitioner in the Western District of Texas (case no. 1:21-cv-00027) on January 19, 2021, asserting the '590 patent. EX1069.

XV. CONCLUSION

The Board should institute this IPR and issue a final written decision finding claims 1-23 unpatentable.

Respectfully submitted,
STERNE, KESSLER, GOLDSTEIN & FOX
P.L.L.C.

/Lestin Kenton/

Lestin L. Kenton (Reg. No. 72,314)
Attorney for Petitioner Roku, Inc.

Date: January 10, 2022

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Washington, D.C. 20005-3934
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APPENDIX A: LISTING OF CHALLENGED CLAIMS

1. [1P] A computer implemented method for providing a multimedia hardware device to generate an authorized reproduction of a media content item included in a digital media file, comprising:

[1A] receiving a license request from a user requesting to engage in a license transaction to reproduce a media content item;

[1B] evaluating the license transaction to determine whether the user has acquired a license to reproduce the media content item;

[1C] after the evaluation of the license transaction, extracting from the license transaction user data that is specific to the user that is attempting to reproduce the media content item when the user acquires the license and when the user declines the license, wherein the user data includes demographic data associated with the user that enables a copyright owner of the media content item to gauge a demographic that acquired the license for the media content item of the copyright owner and a demographic that declined the license for the media content item of the copyright owner;

[1D] aggregating the user data into a statistics record for the license request when the user acquires the license and when the user declines the license, wherein the statistics record summarizes the user data associated with the license request;

[1E] storing in a license database the statistics record so that the user data is accessible to the copyright owner of the media content item; and

[1F] analyzing a plurality of statistics records aggregated from each license request for the media content item owned by the copyright owner to provide the copyright owner with the aggregated user data from each license request of the media content item.

2. The method of claim 1, further comprising:

receiving a license to reproduce the media content from the licensing system when the licensing request is granted by the licensing system; and

preventing reproduction of the media content item when the licensing request is declined by the licensing system.

3. The method of claim 2, further comprising:

reproducing the media content item based on a plurality of reproduction parameters in the license that is received from the licensing system.

4. The computer implemented method of claim 1, further comprising:

storing in the license database the user data that is associated with the user that is attempting to reproduce the media content item that is accessible to a third

party online media retailer that has been selected by the copyright owner to distribute the media content item.

5. The computer implemented method of claim 1, further comprising:
storing in the license database the user data that is associated with the user that is attempting to reproduce the media content item that is accessible to a hardware device manufacturer that manufactures hardware that is implemented by the multimedia hardware device.

6. The method of claim 1, wherein the user data includes a geographic location of the user who is accessing the media content item.

7. [7P] A computer implemented method for providing a media content licensing and verification system to license media content for reproduction, the method comprising:

[7A] receiving a media licensing request from an external device associated with a user, wherein the media licensing request includes digital media information associated with the media content item included in a digital media file;

[7B] determining whether the media licensing request is to be granted based on a media content record stored in a media catalog database that is associated with the media content item;

[7C] after the determination of the media licensing request, extracting from the media licensing request user data that is specific to the user that is attempting to reproduce the media content item when the user is granted the license and when the user declines the license, wherein the user data includes demographic data associated with the user that enables a copyright owner to gauge a demographic that acquired the license for the media content item of the copyright owner and a demographic that declined the license for the media content item of the copyright owner;

[7D] aggregating the user data into a statistics record for the media licensing request when the user acquires the license and when the user declines the license, wherein the statistics record summarizes the user data associated with the media licensing request;

[7E] storing in a license database the statistics record so that the user data is accessible to the copyright owner of the media content item; and

[7F] analyzing a plurality of statistics records aggregated from each media licensing request for the media content item owned by the copyright owner to provide the copyright owner with the aggregated user data from each media

licensing request of the media content item when the license is acquired by the user and when the license is declined by the user.

8. The method of claim 7, further comprising:

generating a license record that includes license granting information associated with the license granted to the external device; and
storing the license record in a registered user database that is associated with the user.

9. The method of claim 7, wherein the digital media information includes a fingerprint associated with the media content item.

10. The method of claim 7, further comprising:

storing in the license database the user data that is associated with the user that is attempting to reproduce the media content item that is accessible to a third party online media retailer that has been selected by the copyright owner to distribute the media content item.

11. The method of claim 7, further comprising:

storing in the license database the user data that is associated with the user that is attempting to reproduce the media content item that is accessible to a hardware device manufacturer that manufactures hardware that is implemented by the multimedia hardware device.

12. The method of claim 7, wherein the user data includes additional media content items that the user has previously accessed.

13. **[13P]** A system for providing a multimedia hardware device to generate an authorized reproduction of a media content item included in a digital media file, comprising:

a memory coupled to a processor configured to:

[13A] receive a license request from a user requesting to engage in a license transaction to reproduce the media content item;

[13B] evaluate the license transaction to determine whether the user has acquired a license to reproduce the media content item;

[13C] after the evaluation of the license transaction, extract from the license transaction user data that is specific to the user that is attempting to reproduce the media content item when the user acquires the license and when the user declines the license, wherein the user data includes demographic data associated with the

user that enables a copyright owner to gauge a demographic that acquired the license for the media content item of the copyright owner and a demographic that declined the license for the media content item of the copyright owner,

[13D] aggregate the user data into a statistics record for the license request when the user acquires the license and when the user declines the license, wherein the statistics record summarizes the user data associated with the license request,

[13E] store in the license database the statistics record so that the user data is accessible to the copyright owner of the media content item, and

[13F] analyze a plurality of statistics records aggregated from each license request for the media content item owned by the copyright owner to provide the copyright owner with the aggregated user data from each license request of the media content item when the license is acquired by the user and when the license is declined by the user.

14. The system of claim 13, wherein the processor is further configured to:

receive a license to reproduce the media content item from the licensing system when the licensing request is granted by the licensing system; and prevent reproduction of the media content item when the licensing request is declined by the licensing system.

15. The system of claim 13, wherein the processor is further configured to reproduce the media content item based on a plurality of reproduction parameters included in the license that is received from the licensing system.

16. The system of claim 13, wherein the processor is further configured to store in the license database the user data that is associated with the user that is attempting to reproduce the media content item that is accessible to a third party online media retailer that has been selected by the copyright owner to distribute the media content item.

17. The system of claim 13, wherein the processor is further configured to store in the license database the user data that is associated with the user that is attempting to reproduce the media content item that is accessible to a hardware device manufacturer that manufactures hardware that is implemented by the multimedia hardware device.

18. The system of claim 13, wherein the user data includes a quantity of times that the user has previously accessed the media content item and additional media content items.

19. [19P] A system for providing a media content licensing and verification system to license media content for reproduction, comprising:

[19A.1] a transceiver configured to receive a media licensing request from an external device associated with a user, wherein the media licensing request includes digital media information associated with the media content item included in a digital media file; and

[19A.2] a memory coupled to a processor configured to:

[19B] determine whether the media licensing request is to be granted based on the media content record stored in the media catalog database that is associated with the media content item,

[19C] after the determination of the media licensing request, extracting from the media licensing request user data that is specific to the user that is attempting to reproduce the media content item when the user acquires the license and when the user declines the license, wherein the user data includes demographic data associated with the user that enables a copyright owner to gauge a demographic that acquired the license for the media content item of the copyright owner and a demographic that declined the license for the media content item of the copyright owner,

[19D] aggregate the user data into a statistics record for the media licensing request when the user acquires the license and when the user declines the license,

wherein the statistics record summarizes the user data associated with the media licensing request, and

[19E] store in a license database the statistics record so that the user data is accessible to the copyright owner of the media content item, and

[19F] analyze a plurality of statistics records aggregated from each media licensing request for the media content item owned by the copyright owner to provide the copyright owner with the aggregated user data from each license request of the media content item when the license is acquired by the user and when the license is declined by the user.

20. The system of claim 19, wherein the processor is further configured to:

generate a license record that includes license granting information associated with the license granted to the external device; and

store the license record in a registered user database that is associated with the user.

21. The system of claim 19, wherein the processor is further configured to store in the license database the user data that is associated with the user that is attempting to reproduce the media content item that is accessible to a third party

online media retailer that has been selected by the copyright owner to distribute the media content item.

22. The system of claim 21, wherein the processor is further configured to store in the license database the user data that is associated with the user that is attempting to reproduce the media content item that is accessible to a hardware device manufacturer that manufactures hardware that is implemented by the multimedia hardware device.

23. The system of claim 19, wherein the user data includes a geographic location of the user who is accessing the media content item that enables the copyright owner to gauge geographic locations where the media content item is being accessed.

CERTIFICATION OF SERVICE (37 C.F.R. §§ 42.6(e), 42.105(a))

The undersigned hereby certifies that on January 10, 2022, true and correct copies of the foregoing **PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,898,590**, Petitioner's Power of Attorney, and all associated exhibits were served in their entireties on the following parties via FedEx Express® or Express Mail:

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*Additional Address Known to
Petitioner as Likely to Effect Service*

STERNE, KESSLER, GOLDSTEIN & FOX
P.L.L.C.

/Lestin Kenton/

Lestin L. Kenton (Reg. No. 72,314)
Attorney for Petitioner Roku, Inc.

Date: January 10, 2022

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**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATION,
TYPEFACE REQUIREMENTS, AND TYPE STYLE REQUIREMENTS**

1. This Petition complies with the type-volume limitation of 14,000 words, comprising 11,999 words, excluding the parts exempted by 37 C.F.R. § 42.24(a).

2. This Petition complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word 2016 in 14-point Times New Roman.

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