

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROKU, INC.
Petitioner

v.

MEDIA CHAIN, LLC,
Patent Owner

Case IPR2022-00394
U.S. Patent 10,885,154

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 10,885,154**

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Patent Trial and Appeal Board
U.S. Patent & Trademark Office
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PETITIONER’S EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 10,860,154 to Estes (“’154 patent”)
1002	Declaration of John Tinsman
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	<i>Intentionally Left Blank</i>
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. 10,860,154 (“’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”)
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”)

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Exhibit No.	Description
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 et al. (“Boccon-Gibod”)
1022	Urs Gasser et al., “Case Study: DRM-protected Music Interoperability and e-Innovation,” Harvard.edu (November 2007) (https://dash.harvard.edu/bitstream/handle/1/2794938/DRM-protected+Music+In eroperability+and+eInnovation.pdf;jsessionid=FEC1E2A0F87ABB7EB30E41EA93AC1CAC?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 et al. (“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, et al., “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 et al. (“Gharaat”)
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 et al. (“Handman”)
1033	U.S. Patent Publication No. 2006/0206478 to Glaser et al. (“Glaser”)

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Exhibit No.	Description
1034	U.S. Patent No. 7,081,579 to Alcade et al. (“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 et al. (“Ramaswamy”)
1039	U.S. Patent No. 5,223,924 to Strubbe et al. (“Strubbe924”)
1040	U.S. Patent Publication No. 2001/0056405 to Muyres et al. (“Muyres”)
1041	U.S. Patent No. 7,603,382 to Halt, Jr. (“Halt”)
1042	U.S. Patent No. 10,447,564 to Abraham et al. (“Abraham”)
1043	U.S. Patent No. 8,583,089 to Ramer et al. (“Ramer”)
1044	Laurie J. Flynn, “Like This? You’ll Hate That.” (Not All Web Recommendations Are Welcome.),” NYTIMES.com (January 23, 2006)
1045	U.S. Patent No. 8,375,131 To Rogers et al. (“Rogers”)
1046	U.S. Patent Publication No. 2012/0233701 to Kidron (“Kidron”)
1047	U.S. Patent No. 6,317,722 to Jacobi et al. (“Jacobi”)
1048	U.S. Patent No. 8,352,331 to Dunning et al. (“Dunning”)
1049	U.S. Patent Publication No. 2003/0086341 to Wells et al. (“Wells”)
1050	U.S. Patent No. 7,178,720 to Strubbe et al. (“Strubbe”)
1051	“Technological Protection Systems for Digitized Copyrighted Works: A Report to Congress,” United States Patent and Trademark Office, 2002

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Exhibit No.	Description
1052	Richard Leeming, “DRM – ‘digital rights’ or ‘digital restrictions’ management?”, EBU Technical Review, January 2007 (https://tech.ebu.ch/docs/techreview/trev_309-digital_rights.pdf)
1053	Jordi Ribas-Corbera, “Windows Media 9 Series – a platform to deliver compressed audio and video for Internet and broadcast applications,” EBU Technical Review, January 2003 (https://tech.ebu.ch/docs/techreview/trev_293-ribas.pdf)
1054	<i>Intentionally Left Blank</i>
1055	Adrian Slywotzky, et al., “The Future of Commerce,” Harvard Business Review, January-February 2000 (https://hbr.org/2000/01/the-future-of-commerce)
1056	Benno Stein, et al., “Near Similarity Search and Plagiarism Analysis,” 29th Annual Conference of the German Classification Society (GfKI), Magdeburg, Germany, 2006
1057	Chow Kok Kent, et al., “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	John Timmer, “Publishers cut book sharing deal with Scribd,” Ars Technica, March 18, 2009
1060	Eric A. Robinson, “Digital Rights Management, Fair Use, and Privacy: Problems for Copyright Enforcement through Technology,” University of St. Augustine, December 2009
1061	U.S. Patent Publication No. 2012/0020647 to Vogel (“Vogel”)
1062	<i>Intentionally Left Blank</i>
1063	U.S. Patent Application Publication No. 2003/0028796 to Roberts et al. (“Roberts”)
1064	Complaint, <i>Media Chain LLC v. Roku, Inc.</i> , WDTX-1-21-cv-00027

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Exhibit No.	Description
1065	Order on Motion to Transfer, <i>Media Chain LLC v. Roku, Inc.</i> , WDTX-1-21-cv-00027
1066	Scheduling Order, <i>Media Chain LLC v. Roku, Inc.</i> , WDTX-1-21-cv-00027
1067	<i>Intentionally Left Blank</i>
1068	U.S. Patent No. 7,577,703 to Boucher et al. (“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	U.S. Patent No. 9,898,590 to Estes (“’590 Patent”)
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	<i>Intentionally Left Blank</i>
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 petitions for IPR of claims 1-18 of U.S. Patent No. 10,885,154.

I. INTRODUCTION

The '154 patent claims are directed to a multimedia hardware device that identifies requested digital content using “fingerprints,” and provides, to third-party retailers, statistics summarizing collected demographic data for a user who accepts and declines to stream content. EX1001, 8:38-48, 11:63-12:15.

But tracking demographic data and content using fingerprints in response to users accepting and declining to stream was already disclosed by several prior art references, including U.S. Patent Publication Nos. 2011/0191246 (EX1004, “Brandstetter”), 2004/0010417 (EX1003, “Peled”), 2008/0140433 (EX1006, “Levy”), and 2005/0004873 (EX1005, “Pou”). This Petition thus demonstrates the unpatentability of all claims of the '154 patent.

II. IDENTIFICATION OF UNPATENTABILITY GROUNDS

Ground	Prior Art	Basis	Claims Challenged
1	Brandstetter-Levy	35 U.S.C. § 103	1-2, 4-18
2	Brandstetter-Levy-Rassool (EX1016)	35 U.S.C. § 103	3
3	Peled-Pou	35 U.S.C. § 103	1-2, 4-7, 9-18
4	Peled-Pou-Rassool	35 U.S.C. § 103	3
5	Peled-Pou-Brandstetter	35 U.S.C. § 103	8

The earliest alleged priority date of the '154 patent is November 4, 2011.¹

The references qualify as prior art:

- Brandstetter is prior art under pre-AIA 35 U.S.C. § 102(a) because it was published on August 4, 2011.
- Peled is prior art under § 102(b) because it was published on January 15, 2004.
- Levy is prior art under § 102(b) because it was published on June 12, 2008.
- Pou is prior art under § 102(b) because it was published on January 6, 2005.
- Rassool is prior art under § 102(b) because it issued on May 9, 2006.

III. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art (“POSA”) at the time the '154 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, ¶¶1-48.

¹ Petitioner reserves the right to challenge that priority date in other proceedings.

IV. OVERVIEW OF THE '154 PATENT

The claims of the '154 patent are generally directed to (1) licensing and distributing digital media content, and (2) targeted marketing. However, these concepts were well-known in the art. EX1002, ¶¶49-80, 104-52.

A. Disclosure

1. Distributing Digital Media Content Using Fingerprints

The '154 patent describes a platform for distributing, licensing, and marketing digital media content. EX1001, Abstract, 1:17-20, 1:61-63, 3:35-42, FIG. 2.

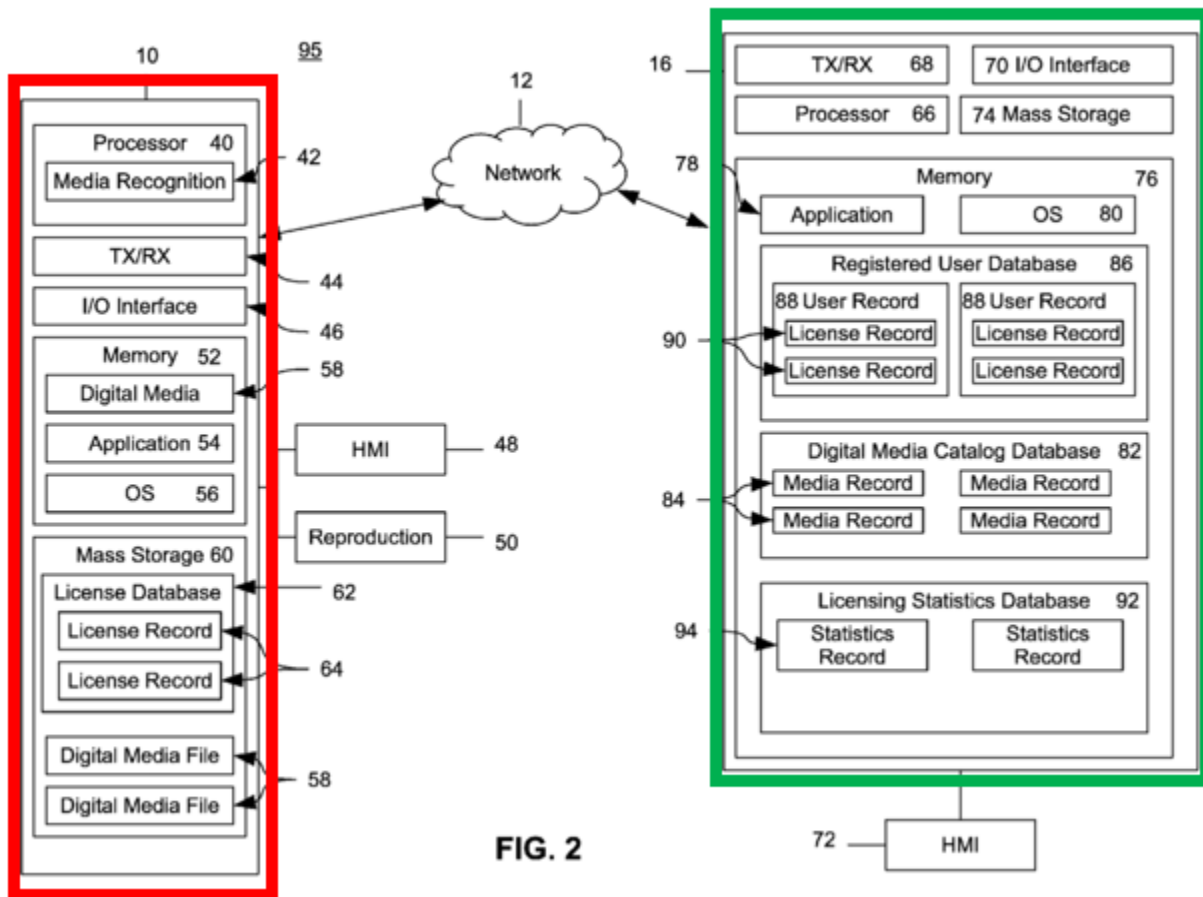
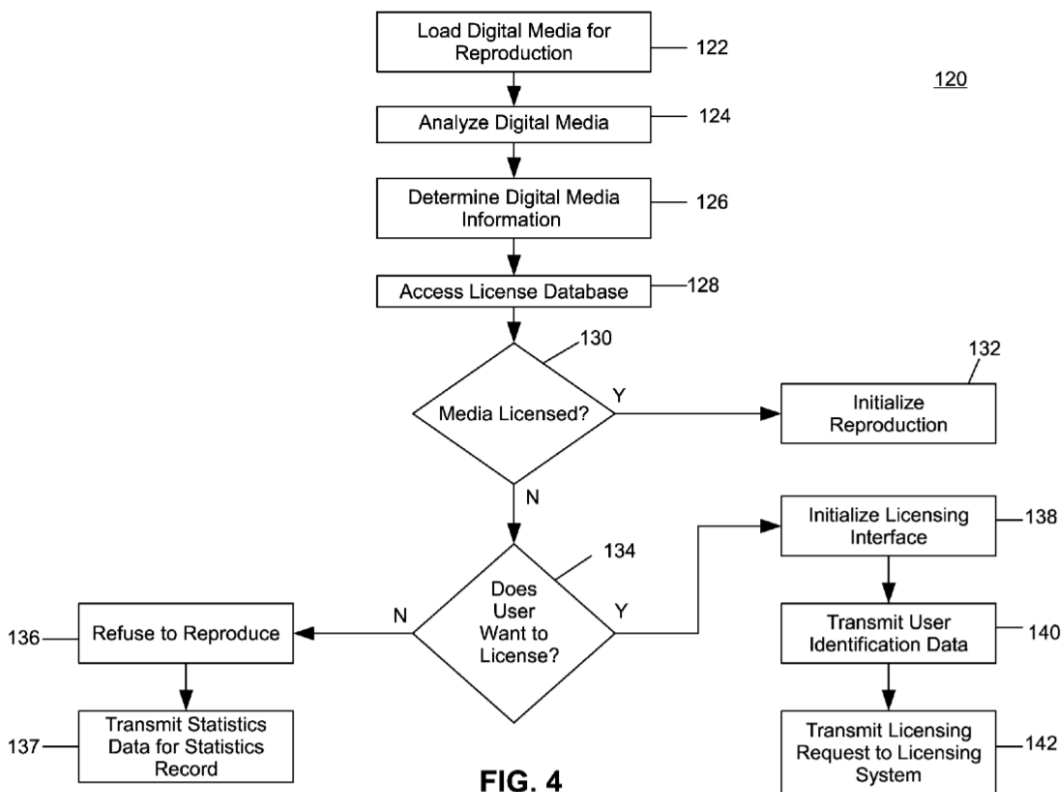
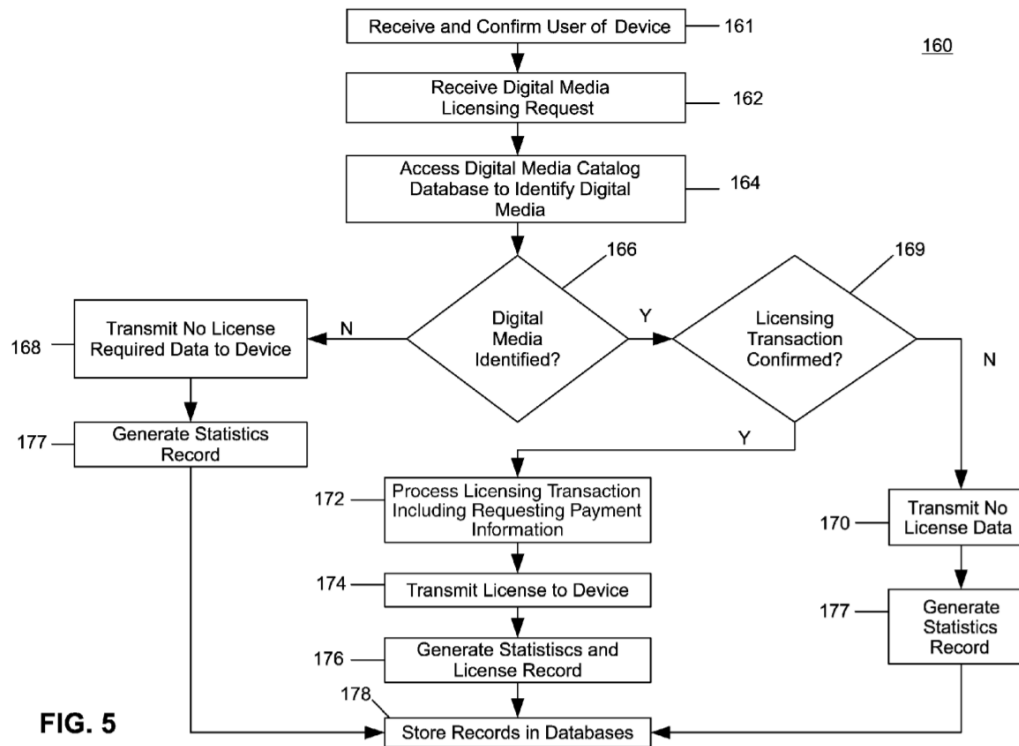


FIG. 2

EX1001, FIG. 2 (annotated).

The platform includes a “licensing system 16” (green) and user “device 10” (red). *Id.*, 3:26-34, 3:65-4:7. The patent broadly describes its functionality as capable of being implemented at either of these devices. *Id.*, 8:8-19, 10:17-21, 11:36-40; EX1002, ¶¶81-88. Figures 4-5 depict this functionality:





EX1001, FIGs. 4-5.

“Licensing system 16” is loaded with a “catalog of media content items.” EX1001, FIG. 3, 7:39-43, 8:21-56, 13:27-32. The content items are analyzed to determine “identifying characteristics” that are “inherently present.” *Id.*, 4:13-31, 6:57-67, 8:27-50, 8:59-9:2, 9:17-31. This may be a “fingerprint” or “digital watermarking.” *Id.*, 4:31-37, 13:26-32. A fingerprint embodies inherent properties of the media content so as to allow the system to distinguish between multiple versions of content and to ensure that the system can accurately identify content even if it has been remastered or modified. *Id.*, 4:31-37, 9:24-32.

A user may then request to evaluate streaming content, and if not licensed, acquire a license. *Id.*, 4:2-11, 4:31-52, 9:22-38, 9:64-11:1; EX1002, ¶¶89-91.

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. EX1001, 5:30-48, 7:61-8:7, 9:50-57, 11:12-36, 11:61-12:26; EX1002, ¶¶92-94. Figure 7 depicts this process:

200

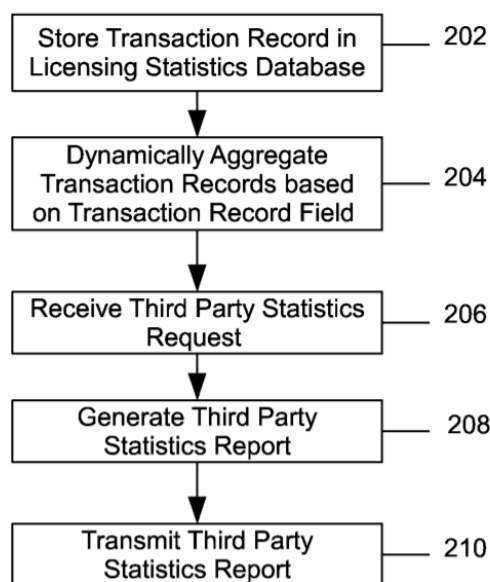


FIG. 7

EX1001, FIG. 7.

B. Prosecution History

During prosecution of the '154 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 that

user data be collected ***both*** when the user acquires “***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.”² *Id.*, 376. The ’154 patent, filed years later, quickly issued based on the Examiner’s similar determination. EX1014, 83-93. The Examiner was unaware, however, that this feature is disclosed in Brandstetter and Peled as further explained below. EX1002, ¶¶102-03.

C. Claims

The ’154 patent contains eighteen claims and just one independent claim (claim 1). A Claim Appendix has been included with this Petition.

Claim 1 recites a multimedia hardware device that identifies requested content based on fingerprints ([1A]-[1D], [1F]-[1G]) and collects user demographic data, for purposes of targeted marketing, when the user accepts to stream one content item and declines to stream another ([1E], [1H]-[1M]). EX1002, ¶¶95-98.

² All emphasis added unless otherwise noted.

D. Other 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 ¶¶99-101 of the Declaration of John Tinsman (EX1002).

Each of these patents recites identifying whether a user has accepted or declined an offer, recording user demographic data, and providing a summary of the user demographic data. EX1002, ¶¶99-101. The '154 patent likewise claims these concepts but refers specifically to streaming and “media fingerprints,” and involves a single user requesting two different media content items using a multimedia hardware device.

V. CLAIM CONSTRUCTION

In IPRs, 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. 35 U.S.C. § 282(b); 37 C.F.R. § 42.100(b); *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 that the “decline” limitation (e.g., [1H]) “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. 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, Sections IX.B.9, XI.B.9. 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. EX1002, ¶¶153-54.

VI. GROUND 1: CLAIMS 1-2 AND 4-18 ARE OBVIOUS OVER BRANDSTETTER-LEVY.

A. Overview of Brandstetter

Brandstetter discloses an online platform where content creators can market and distribute digital content. EX1004, Abstract, ¶¶69, 118. The platform includes a central server communicating with user client devices via the Internet. *Id.*, ¶¶91, 109. Brandstetter’s platform licenses and distributes digital media content to its users. *Id.*, ¶¶77, 98, 120, 126, 173; EX1002, ¶¶105-09.

Brandstetter also includes a report module that “collects information about user activity with respect to media content on the platform.” EX1004, ¶¶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 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, ¶¶110-17. The data is then used to generate activity reports that allow third parties to engage in targeted marketing of media content. EX1004, ¶¶8, 65, 71, 73, 75-76, 78, 80, 84-86, 96-97, 130, 133, 172.

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® and personal computer[]” that includes “Client Player Application” software for playing content. *Id.*, ¶¶83-84. When a “user selects raw content for playing,” the Media Server identifies a corresponding digital watermark (DWM) Content ID. *Id.*, ¶108. 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 define the conditions for playing the

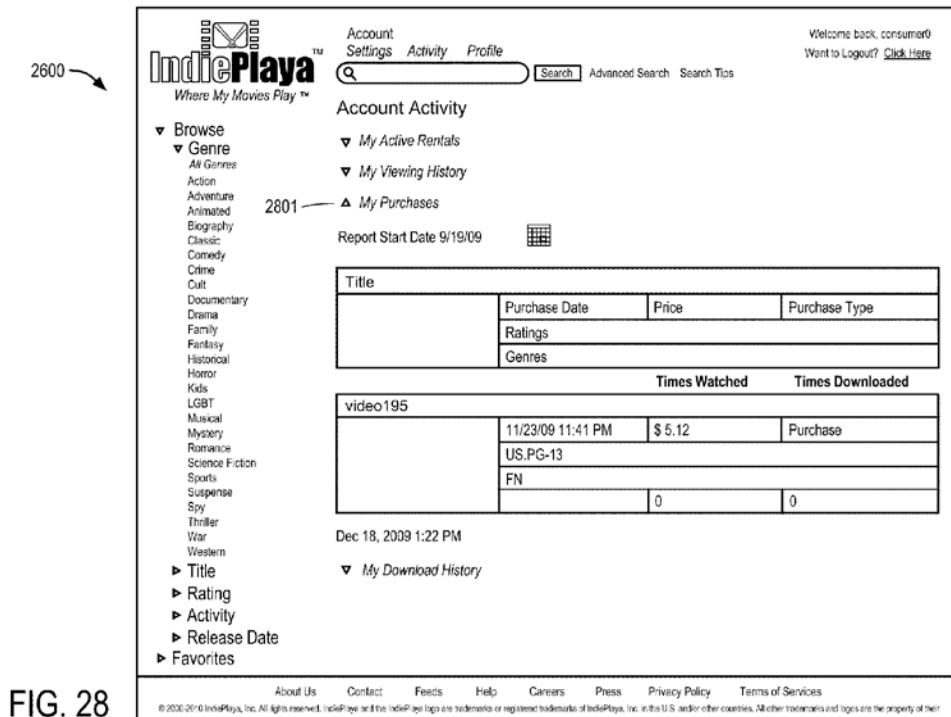
media content. *Id.*, ¶87. The content is then distributed in accordance with the Usage Rights. *Id.*, ¶¶90, 97-98, 110, 112, 115; EX1002, ¶¶131-42.

C. A POSA Would Have Combined Brandstetter and Levy.

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

A POSA would have been motivated to combine Brandstetter with Levy because the resultant system would (1) provide an efficient mechanism for tracking purchased licenses, and (2) confirm adherence to license terms for downloaded media files. EX1002, ¶¶155-67.

First, combining Brandstetter and Levy would have resulted in a system that efficiently tracks purchased licenses. Brandstetter tracks user purchase history and 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. *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, ¶¶159-60. A common way to uniquely track purchased media content would be using a unique content identifier. EX1002, ¶160. Levy 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, ¶¶161-63. A fingerprint is a compact, “reduce-bit representation of content” and therefore enables fast and computationally efficient

comparisons. EX1006, ¶142; EX1002, ¶163. 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, ¶163.

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. EX1006, ¶142; EX1004, ¶6. Thus, implementing Levy's unique Content ID or fingerprinting would provide an efficient mechanism for organizing purchased licenses. EX1002, ¶163.

Second, combining Levy with Brandstetter would aid in confirming adherence to license terms for downloaded media files. *Id.*, ¶164. 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. *Id.*; 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, ¶¶164-65; 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 allow content creators to secure revenue streams. EX1004, ¶¶4-5; EX1002, ¶¶166-67.

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, ¶¶168-70. A POSA would have implemented Levy's purchase and license tracking/fingerprinting 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. Section VI.C.1; EX1002, ¶168; EX1004, ¶¶77, 125, 145, 166, 169, 173.

Both Brandstetter and Levy describe conventional systems for managing digital media files. EX1004, ¶¶90-101; EX1006, ¶¶17, 49-57. A POSA would have easily combined the references using well-known computer programming techniques. EX1002, ¶169. Combining Brandstetter and Levy would have been predictable and would have simply amounted to updating Brandstetter's license management software algorithm to include Levy's Content ID or fingerprint management. *Id.*, ¶¶169-70.

D. Brandstetter-Levy Discloses Claim 1.

1. [1P].

Brandstetter describes a computer-based method for "marketing and distributing media content, including motion pictures, television programming, online games, music, and other media content," to users. EX1004, Abstract, ¶¶1, 6,

10, 69. Brandstetter’s content is distributed by its central server 101 to user “client devices” 111, each of which may comprise a “personal computer (e.g., desktop or laptop computer).” *Id.*, ¶¶69, 91, 101, 109. These client devices are the claimed “multimedia hardware devices.” EX1002, ¶¶171-72.

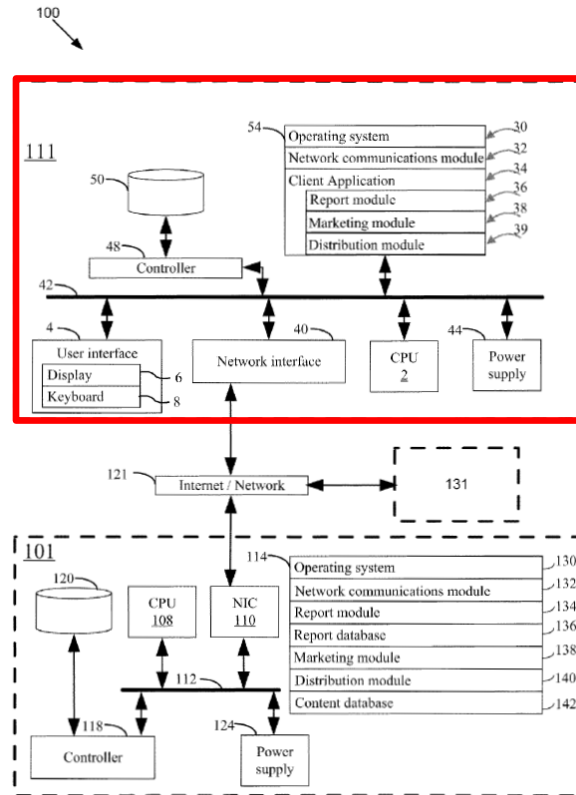


FIG. 1C

EX1004, FIG. 1C (annotated).

2. [1A]: “a processor.”

Brandstetter’s client device 111 contains “one or more processing units (CPUs).” EX1004, ¶102. The processors may be “general or special purpose

microprocessors, and any one or more processors of any kind of digital computer.”

Id., ¶183; EX1002, ¶173.

3. [1B]: “a memory.”

Likewise, Brandstetter’s client device contains “a memory 54” that stores an operating system and the software required to carry out Brandstetter’s client-side tasks. EX1004, ¶¶104, 183; EX1002, ¶174.

4. [1C]: “generate a first request ...”

Brandstetter’s platform distributes to its users “any type of media content, including media content in digital form.” EX1004, ¶7. Each item corresponding to such content is a “media content item.” *Id.*, ¶69. Users make “requests” for content using their client devices. *Id.*, ¶¶10, 69, 77, 98. Requests can be made by “click[ing] on an advertisement” or using a “search” bar in one of Brandstetter’s interfaces. *Id.*, ¶¶71, 87, 120-27; FIGs. 4, 25-36. The user requests are generated by the processors within the users’ client devices. EX1002, ¶¶175-76.

Brandstetter’s distribution of content includes “streaming” a media content item contained in a digital media file in response to user requests. EX1002, ¶177; EX1004, ¶¶7, 67, 69, 71, 75, 77, 118, 125, 145, 166-69, 173, FIGs. 2, 16, 19, 30, 34-35A, 36-39. Users’ requests to stream are in fact requests to “evaluate streaming” because users can “click[] on an advertisement for ... media content,”

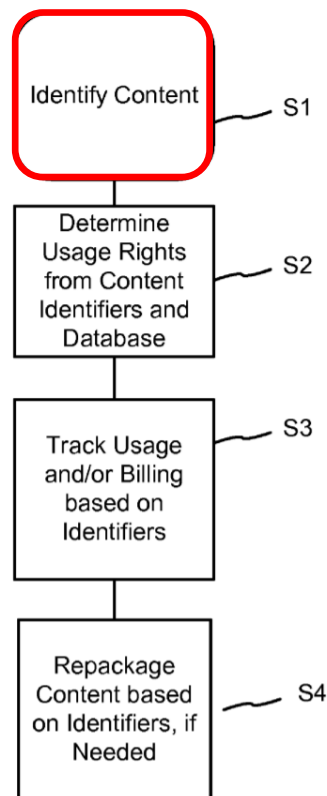
and *thereafter* “purchase[] a license to the media content.” EX1004, ¶71; EX1002, ¶178.

5. [1D]: “identify the first media content item by determining a first media fingerprint ...”

Brandstetter identifies requested media content items in response to user requests. EX1002, ¶¶179-80. Indeed, Brandstetter states that its system obtains “the characteristics of the media content with which each of the users interact, such as the type of media content (e.g., video, audio, graphic, or literary work).” EX1004, ¶¶ 71, 83, FIGs. 1A-1B; *see also id.*, ¶118 (referring to “static elements corresponding to aspects of the multimedia content that remain constant (e.g., or unchanging) in the platform,” including title, plot, genre, ratings, credit). This “static information” uniquely identifies content and includes a “globally constant description” that individually identifies content. *Id.*, ¶118.

And, while Brandstetter may not expressly disclose using fingerprints to identify media content, Levy does. Levy describes an algorithm by which multimedia files such as songs and videos are “identified” before being rendered, EX1006, ¶¶4, 42, 69, 93 108-09, FIG. 17a-18:

Fig. 1



EX1004, FIG. 6 (annotated).

This identification can be performed using “fingerprints,” which was the most common way to identify digital media content in the prior art. EX1006, Abstract, ¶¶7, 12, 13, 42, 47-48, 54-58, 77, 80, 89, 108-109, 140-42, claims 19, 23, 26, 33, 39; EX1002, ¶¶181-82. The fingerprints comprise “*a hash, derived signature or reduce-bit representation of content*” that allows Levy’s system to “*uniquely identify*” media content. EX1006, ¶¶140, 142. Each fingerprint “*is generated during content creation.*” *Id.*, ¶140. Thus, Levy’s fingerprints identify a unique

characteristic inherently present in the media content item captured during recorded creation of the media content item, and excluding information introduced to the media content item extraneous to the recorded creation. EX1002, ¶183.

Indeed, Levy uses the same language to describe its fingerprinting algorithm as the '154 patent itself. *Compare* EX1001, 4:23-31, 9:17-24 ('154 patent describing fingerprints that embody characteristics “***inherently present*** in the media content item” and that distinguish between different versions of a song), with EX1006, ¶¶47, 85, 142, claim 23 (fingerprints “***derive[] from the content itself***” and “***uniquely identify versions of songs***”); EX1002, ¶¶184-85.

Levy states that media content “is identified before rendering,” without specifying where that step takes place. EX1006, ¶¶42, 152 (stating that embodiments can be “interchang[ed] and substitut[ed]”). But Levy provides examples in which a user’s device (i.e., Levy’s “Media Server” with “Client Player Application” software) can perform the identification step by extracting a fingerprint from the content and looking up the fingerprint in a database, which Levy states can be a “local” database residing on the user’s device. *Id.*, ¶¶10, 43, 51, 54-55, 76, 83-84, 98. Further, the “Media Server includes a fingerprint reader” that “calculates or derives a fingerprint of content.” *Id.*, ¶140; EX1002, ¶186.

A POSA would have been motivated to implement Levy’s fingerprinting identification algorithm at Brandstetter’s client devices and had a reasonable

expectation of success for all the reasons discussed above. Section VI.C; EX1002, ¶¶187-88.

6. [1E]: “extract first user data specific to the user when the user accepts to stream the first media content item.”

Brandstetter’s platform “collect[s] information about the users (e.g., their demographics) and user activity.” EX1004, ¶¶65, 83, 130; EX1002, ¶¶189-90. Such data includes “ages, geographical locations, ethnicities, [and] genders.” EX1004, ¶71. Significantly, Brandstetter tracks “all activity up to and ***including a purchase,***” *id.*, ¶130, and thus extracts data for rental and purchase licenses to stream, *id.*, ¶¶75, 77, 83, 87, 93, 119, 120, 123, 124, 126, FIGs. 16, 19, 35A; EX1002, ¶191.

Because the data is collected when the user makes a purchase, the processor within the client device transmits a request to Brandstetter’s platform to purchase the requested media content item and to extract data associated with the user. EX1002, ¶192. Thus, the execution of the extraction step originates with the client device’s processor. Further, it would have been obvious that the extraction itself be performed at the user’s client device. *Id.*, ¶193.

Indeed, Brandstetter itself 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 and all such implementations are within the scope of the present

disclosure.” EX1004, ¶72. Additionally, performing the extraction step on the client’s device—where the user data already resides—would ensure that the user’s personally identifying information is not sent to Brandstetter’s server, thus protecting such data. EX1002, ¶¶193-95. It would also ensure that user data can be collected and used to recommend content for multiple users using the same device, and even when the device is offline. *Id.*, ¶¶196-98. Thus, a POSA would have modified Brandstetter’s system to perform the extraction step at the client device and had a reasonable expectation of success.

7. [1F]: “generate a second request ...”

As explained above, Brandstetter’s client devices generate requests to evaluate streaming media content items. Section VI.D.4. Further, Brandstetter’s platform can be used by a user to stream multiple media content items rather than just a single item. EX1004, ¶¶87, 98; Section VI.D.4; EX1002, ¶¶199-201.

8. [1G]: “identify the second media content item by determining a second media fingerprint ...”

As explained above, Levy identifies a media content item by determining a media fingerprint that identifies a unique characteristic inherently present in the item. Section VI.D.5. Levy’s identification algorithm could be used to identify multiple media content items—based on their respective fingerprints—rather than just a single item. EX1006, ¶142; Section VI.D.5; EX1002, ¶¶202-04.

9. [1H]: “extract second user data specific to the user when the user declines to stream the second media content item.”

Brandstetter also extracts user data when a user *declines* to stream media content. As explained above, Brandstetter’s platform collects user-specific data “*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*” (i.e., in Brandstetter’s activity reports). EX1004, ¶130.

A user may *implicitly* decline to stream content by viewing the content and then navigating away. EX1002, ¶¶205-06. Alternatively, a user may *explicitly* decline to stream by declining a particular offer provided by Brandstetter’s platform. *Id.*, ¶206. For example, a user may select a “rental” license rather than a “purchase” license, in which case the user affirmatively declines the “purchase” license. EX1004, FIG. 16, ¶¶75, 77, 87, 119, 120, 123-26, 130, 147. Likewise, a user may choose a licensing package over another, which will have the effect of affirmatively declining the other package. *Id.*, ¶169. In either case, user data is tracked and extracted to ascertain the demographics of users who are not interested in certain media content. *Id.*, ¶¶77, 130, 173; EX1002, ¶¶206-08.

Further, as explained above, the execution of the extraction step originates with the client devices, and, in any event, a POSA would have found it obvious for Brandstetter’s client devices to perform the extraction step and had a reasonable

expectation of success for the reasons stated above. Sections VI.C, VI.D.6;
EX1002, ¶¶209-10.

10. [1I]: “aggregate the extracted ... data into a first[/second] statistics record ...”

Brandstetter describes aggregating data that its platform gathers, including the demographic data described above. EX1004, ¶71; Sections VI.D.6, VI.D.9. 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,” and Brandstetter uses them to generate activity reports. *Id.*; Section VI.D.13; EX1002, ¶211.

And, as explained above, Brandstetter collects for analysis—and thus aggregates into statistics records—user data both when a user accepts *and* declines to stream content. EX1004, ¶130. Further, Brandstetter’s platform can aggregate data on a per-user or per-content item basis such that each user’s data or data corresponding to a particular content item is aggregated into a different record. EX1004, ¶¶128, 133; EX1002, ¶212.

Importantly, the ’154 patent does not describe the aggregating step occurring on a user’s multimedia hardware device. Instead, it describes the step occurring on the licensing system. *See, e.g.*, EX1001, 11:63-65 (referring to the licensing system “dynamically aggregat[ing] the transaction records in relation to one or more fields of information included in each transaction record”), FIG. 7. Regardless, a POSA

would have found it obvious to perform the aggregation on Brandstetter's client devices and had a reasonable expectation of success for all the reasons stated above. Specifically, doing so would ensure that the user's personally identifying information—which already resides on the client devices—is not sent to Brandstetter's server, thus protecting the data, and would ensure that statistics data can be generated for multiple users of a single device, even when the device is offline. Section VI.D.6; EX1002, ¶¶213-14.

11. [1J]: “transmit to a database the first[/second] statistics record ... so that the summarized first and second user data is accessible to a third party online retailer ...”

Brandstetter stores its intelligence and/or user statistics for subsequent retrieval when generating activity reports. EX1004, ¶¶74, 85, 93, 172, FIG. 1C; EX1002, ¶¶215-16. 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, ¶¶65, 93, 96, 100, 131.

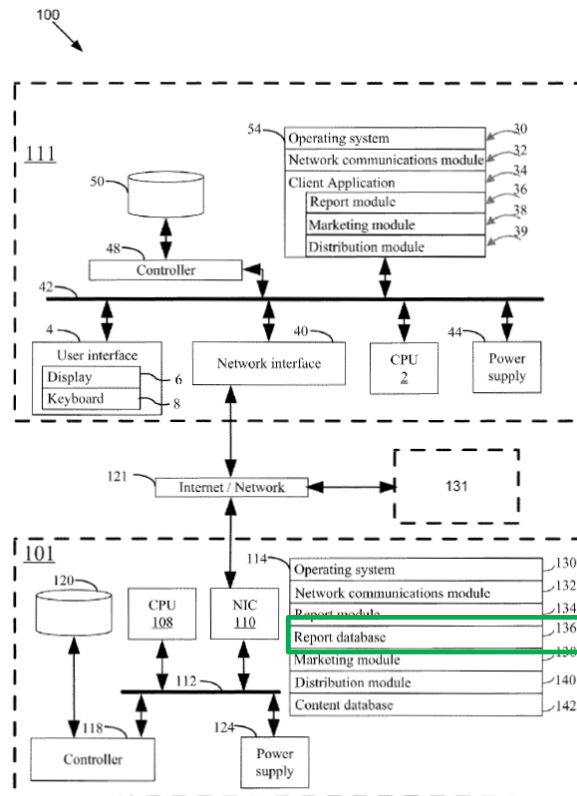


FIG. 1C

EX1004, FIG. 1C (annotated).

Brandstetter does not limit the storage of the statistics in a database associated with server 101. Brandstetter recognizes that other storage may also be possible, including storage on client devices. *Id.*, ¶85 (describing storage of reports containing statistics records in client devices). A POSA would have understood and found it obvious that, in order to store the statistics records in a database, the records are “transmit[ted]” to the database. EX1002, ¶¶217-21.

Brandstetter states that its reports—and thus the summarized user data therein—“may be provided to ... content provider[s]” and makes clear that “[a]

content provider is *any third party granted the right to market or distribute* (including, without limitation, subdistribution, syndication, and licensing of) a content creator’s content or content-related data.” EX1004, ¶¶8-9, 93, 159. The third party can even be a “*sales agent*.” *Id.*, ¶159. A POSA would have understood from this disclosure that Brandstetter’s statistics records are accessible to third-party online retailers—i.e., third parties who have authorization to sell media content online. *Id.*, ¶¶10, 91-92, FIG. 1C; EX1002, ¶¶223-25.

A POSA would have found it obvious to transmit not only the statistics records themselves, but also “the identities of the first and second media content items determined by the first and second media fingerprints.” Indeed, the purpose for aggregating and storing such data is to use the data to generate activity reports that summarize demographic information related to users who express a preference for particular media content items. Section VI.D.13; EX1002, ¶222. Thus, the data is associated with the media content items the data purports to describe. EX1002, ¶222.

12. [1K]: “retrieving the ... statistics record with the identities of the first and second media content items ...”

In contrast to the previously recited steps, this claim element does not require the retrieving step to be performed by the user’s multimedia hardware device. Rather, the retrieving step describes the intended use of the statistics records transmitted to a database in the previous step. EX1002, ¶226. To the extent

the claim element requires **actual** retrieval of data, the element does not specify who or what does the retrieving. *Id.*

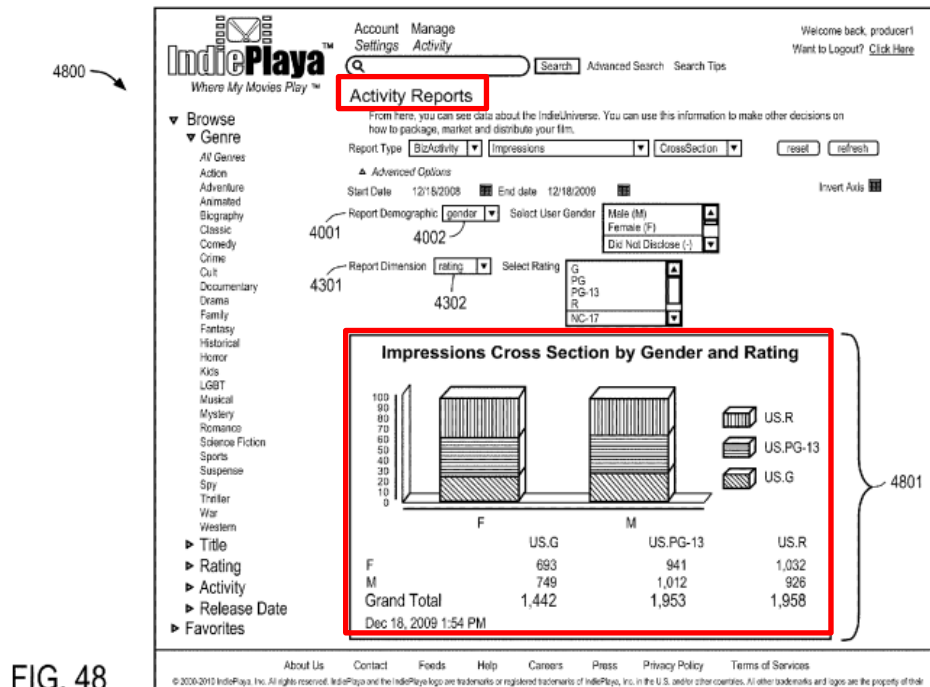
Regardless, Brandstetter discloses this element. As explained above, Brandstetter's user intelligence/statistics (i.e., the claimed "statistics records") are stored in a database. Section VI.D.11. Brandstetter makes clear that its reports containing the intelligence/statistics can be "**retrieved** from persistent storage and provided to" the requesting party. EX1004, ¶74; EX1002, ¶227.

Further, as explained above, Levy discloses identifying a requested media content item based on the item's fingerprint. Section VI.D.5. Given that Levy's fingerprint corresponds to a unique identifier for a content item, a POSA would have been motivated to use such a fingerprint to identify a media content item and to retrieve Brandstetter's reports from the database based on that identity and had a reasonable expectation of success for the reasons explained above. Sections VI.C, VI.D.5; EX1002, ¶¶228-29.

13. [1L]: "analyzing the retrieved ... statistics record to determine a target demographic ..."

Again, the claim element does not require the analyzing step to be performed by the user's multimedia hardware device, but rather, describes an intended use. EX1002, ¶230. To the extent the claim element requires **actual** analysis of data, the element again does not specify who or what does the analyzing. *Id.*

Regardless, Brandstetter's process leading to the generation of "activity reports" discloses the analysis of a plurality of statistics records. 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, 8-10, 66, 73-79, 83, 86, 97, 115, 130-33, 172. The reports contain "historical information regarding purchases... *by one or more demographic groups.*" *Id.*, ¶6, FIG. 48.



EX1004, FIG. 48 (annotated).

Brandstetter describes a demographic of individuals who accept and decline to stream content. *Id.*, ¶130. A POSA would have understood that Brandstetter's

reports therefore analyze user data for both categories of users. *Id.*, ¶81; EX1002, ¶¶231-38.

Brandstetter explains that the reports enable multiple demographics to be targeted, and that those demographics may (or may not) overlap. EX1004, ¶78-79, 81. Likewise, Brandstetter states that the activity reports can convey data corresponding to “media content having a particular characteristic,” rather than for just a single media content item. *Id.*, ¶78; EX1002, ¶¶239-40.

14. [1M]: “providing the third party online retail[er] the target demographic to market the media content item ...”

Again, the claim element does not require the providing step to be performed by the user’s multimedia hardware device, but rather, describes an intended use. EX1002, ¶241. To the extent the claim element requires *actual* provision of a target demographic, the element again does not specify who or what does the providing. *Id.*

Regardless, Brandstetter’s activity reports—which convey a target demographic—can be “retrieved from persistent storage and *provided to the*” requesting party. EX1004, ¶74. Reports can be provided, for example, by displaying them “via an appropriate interface device, such as a display screen connected to the client computer.” *Id.*, ¶85. As another example, Brandstetter states that its server “transmits ... activity reports to client device 111 via network 121” to a requesting party. *Id.*, ¶¶93, 96. In either scenario, the report is provided to the

requesting party, including a third-party online retailer. Section VI.D.11; EX1002, ¶242.

The reports contain target demographic information and may be used by the requesting party to “***efficiently market and distribute their content to a target audience.***” EX1004, ¶6; *see also id.*, ¶¶4-9, 65-66 (explaining that reports allow content creators to “develop and execut[e] one or more strategies for marketing and distributing their content” to particular demographics), 75 (further explaining that reports allow a creator “to market his particular item of media content (e.g., to users of a particular demographic (15) or known interest”), 79, 81, 89, FIG. 1A (steps 16-19); EX1002, ¶¶243-48.

E. Claim 2 (audiovisual works).

Brandstetter’s platform allows users to request and stream different types of digital media content, including “***audiovisual work[s]***” such as movies and videos. EX1004, ¶¶7, 69, 71, 118, 120, 123, 141, 152, 164, 173, 176-77; Section VI.D.4.

Brandstetter refers to multiple versions of movies, stating that its system can distribute “a standard definition version of a film” as well as “a high definition version of the film,” for example. EX1004, ¶126; EX1002, ¶¶249-52.

F. Claim 4 (“live version” and “studio version”).

Brandstetter notes that various versions of requested content may be subject to different licensing terms. EX1004, ¶126; EX1002, ¶¶253-54. A POSA would

have understood that Brandstetter’s disclosure applies equally to any versions of an audiovisual work that would require different licenses, including live and studio versions of works, which were well known at the time. EX1002, ¶255. Indeed, the prior art explains that fingerprints and unique IDs can be used to distinguish between “live and studio versions of the same song,” EX1063, ¶46, which shows that live/studio versions were known and could be requested by users of digital content distribution systems such as Brandstetter’s. The ’154 patent itself includes similar disclosure. EX1001, 9:21-26 (“For example, multiple versions of a song are recorded at various times and may be stored as digital music files, such as a live version and a studio version.”); EX1002, ¶¶255-56.

G. Claim 5 (first version “authorized for streaming” and second version “unauthorized for streaming”).

As explained above, Brandstetter’s platform provides digital content to users who are authorized to stream them. EX1004, ¶69; Section VI.D.4; EX1002, ¶257-58. Brandstetter likewise discloses facilitating a payment transaction to allow a consumer to “purchase[] a license to the media content,” and therefore discloses that a requested version of an audiovisual work be one that is “authorized for streaming.” EX1004, ¶¶93-99. The authorization derives from the copyright owner of the requested content, which is the person or entity that has the ability to provide such authorization. *Id.*, ¶¶6, 67 (referring to copyright owners of requested digital work); EX1002, ¶258.

Brandstetter also contemplates that users may not be authorized to stream certain requested content. In those cases, Brandstetter discloses facilitating a payment transaction to allow a consumer to “purchase[] a license to the media content.” EX1004, ¶¶93-99. Elsewhere, Brandstetter describes users who may be authorized to play the requested media content item only a limited number of times. *Id.*, ¶147. If the user has already played the content “n” number of times, the user’s request to stream the content again is necessarily unauthorized. EX1002, ¶259; EX1004, ¶¶71, 125-26 (examples where user is authorized to stream certain versions of content but not others). Again, a POSA would understand that the lack of authorization derives from the copyright owner of the requested content. EX1002, ¶260.

H. Claim 6 (“book in digital format”).

Brandstetter’s platform can be used to distribute “literary works (e.g., ‘*digital books*’)” and “*e-books*.” EX1004, ¶¶69, 118, claims 3, 46. A POSA would have understood that users could request different versions of such books. Section VI.G; EX1002, ¶¶261-64.

I. Claim 7 (“geographic location”).

Brandstetter discloses tracking user “geographical locations” as part of the stored demographic data. Section VI.D.6; EX1004, ¶¶71, 142-43, 174, FIG. 40; EX1002, ¶¶265-68.

J. Claim 8 (user data includes “number of times the user requested to evaluate streaming” content).

Brandstetter discloses identifying additional media content items that a user has previously accessed. EX1002, ¶269; EX1004, ¶¶71, 123. Brandstetter’s description of “cross-selling” 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, 173. For example, this is tracked when enforcing a “play n-number of times licensing package.” *Id.*; EX1002, ¶¶270-72.

K. Claim 9 (“receive a license” and “prevent streaming ... when the request is declined by the licensing system”).

Brandstetter-Levy discloses receiving a license when a user request is granted. EX1004, ¶¶87, 99, 166, FIG. 26, FIG. 28. When a user purchases a license, the user account receives the license, which is tracked by Brandstetter’s platform. *Id.*; EX1002, ¶¶273-74. Brandstetter also prevents reproduction when the request is declined. EX1002, ¶275; EX1004, ¶¶4-5.

Levy likewise 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, ¶276. Levy also discloses preventing streaming of media content when a request is declined—the “Client Player Application preferably prohibits access.” EX1006, ¶110; EX1002, ¶277-78. 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 and had a reasonable expectation of success. Section VI.C; EX1002, ¶¶277-81; EX1004, ¶¶2-5.

L. Claim 10 (“plurality of streaming parameters”).

“Streaming parameters” refer to the terms of a license. EX1002, ¶¶282-83. Brandstetter discloses 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 streaming parameters depending on the terms of the license obtained by the consumer. EX1002, ¶¶284-88.

M. Claim 11 (“digital watermark”).

Not only does Levy identify media content by determining digital fingerprints, it also does so by using “digital watermarks.” The watermarks can be

“embedded within” content items, and can “include[] a unique content identifier.”

EX1006, ¶¶7, 12, 13, 42, 47-48, 54-58, 77, 80, 89, 108-09. Levy explains that “[d]igital watermarking is the science of encoding physical and electronic objects with plural-bit digital data, in such a manner that the data is essentially hidden from human perception, yet can be recovered by computer analysis.” *Id.*, ¶¶7, 54-55 (user’s device can request media content and “check[] the content item ... for an identifier” by, for example, performing a “watermark detection process”). The watermark allows the system to “uniquely” identify the content. *Id.*, ¶69 (“The content is preferably uniquely identified. Content can be identified, e.g., by a digital watermark.”); EX1002, ¶¶289-92.

Levy’s watermarking algorithm can be performed at Levy’s client device, and it would have been obvious to use that algorithm in Brandstetter’s client devices for all the reasons described above. Sections VI.C, VI.D.5. Using watermarks, in particular, to identify content is beneficial because, as Levy explains, “the watermark will typically survive end-user recording of the content onto new media or into a new format.” EX1006, ¶47; EX1002, ¶¶293-94.

N. Claim 12 (“digital watermark is metadata”).

Levy explains that watermarks can be embedded in the content within the files *or* reflected as metadata within the files. For example, Levy states that a content identifier can be embedded within content “as metadata.” EX1006, ¶¶59,

80 (“One example of DRM-packaged content includes encrypted content and ***metadata***. The ***metadata typically includes a DRM Content Identifier***, related content information [e.g., title and artist] and Usage Rights.”). Using content identifiers and watermarks in metadata was a well-known way to identify digital media content. EX1051, 7 (noting that digital signatures may take the form of “metadata” (i.e., “encoded identifying information about the content”)); EX1002, ¶¶295-98.

O. Claim 13 (“load a first digital media file for reproduction”).

Brandstetter-Levy discloses “loading” a digital media file for reproduction at a client device. When accessing Brandstetter’s platform, the user interacts with the catalog to view available media content. EX1004, ¶169, FIGs. 34-35; EX1002, ¶¶299-300. Figure 34 illustrates media files that are loaded for reproduction on a user computer. EX1004, ¶¶93, 118, FIGs. 2, 34; *see also id.*, ¶¶78, 89-93, 166 FIGs. 28-29; EX1002, ¶¶300-04.

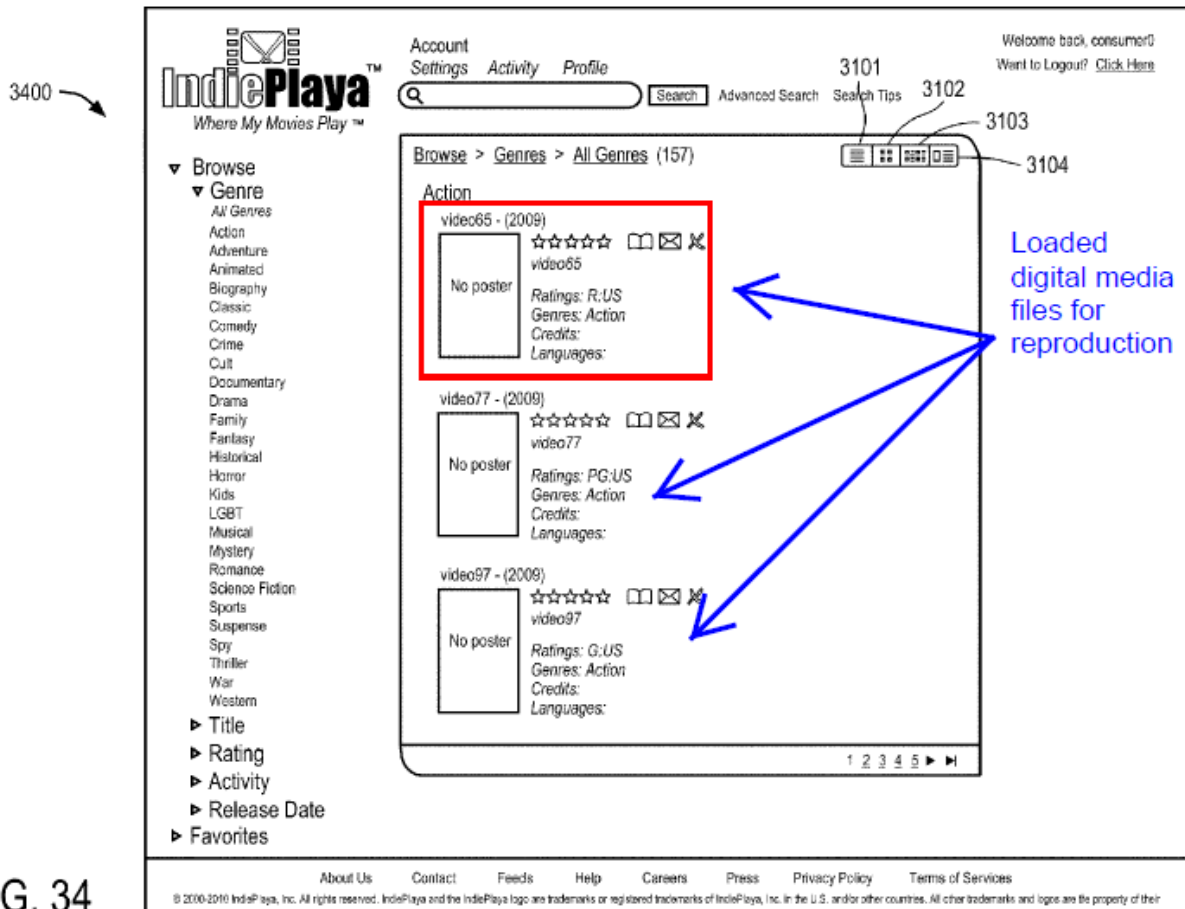


FIG. 34

EX1004, FIG. 34 (annotated)

Levy also discloses loading “raw content” (i.e., the claimed “digital media file”) at a client device (i.e., Levy’s “Media Server” including a Client Player Application). EX1006, ¶¶83-84, 106-07, FIG. 17d. Levy discloses “loading” when the raw content is accessed for consumption (step 1 of FIG. 17d). EX1006, ¶¶106-07; EX1002, ¶¶305-08. The raw content may have been previously downloaded or stored on the Media Server. EX1004, ¶106.

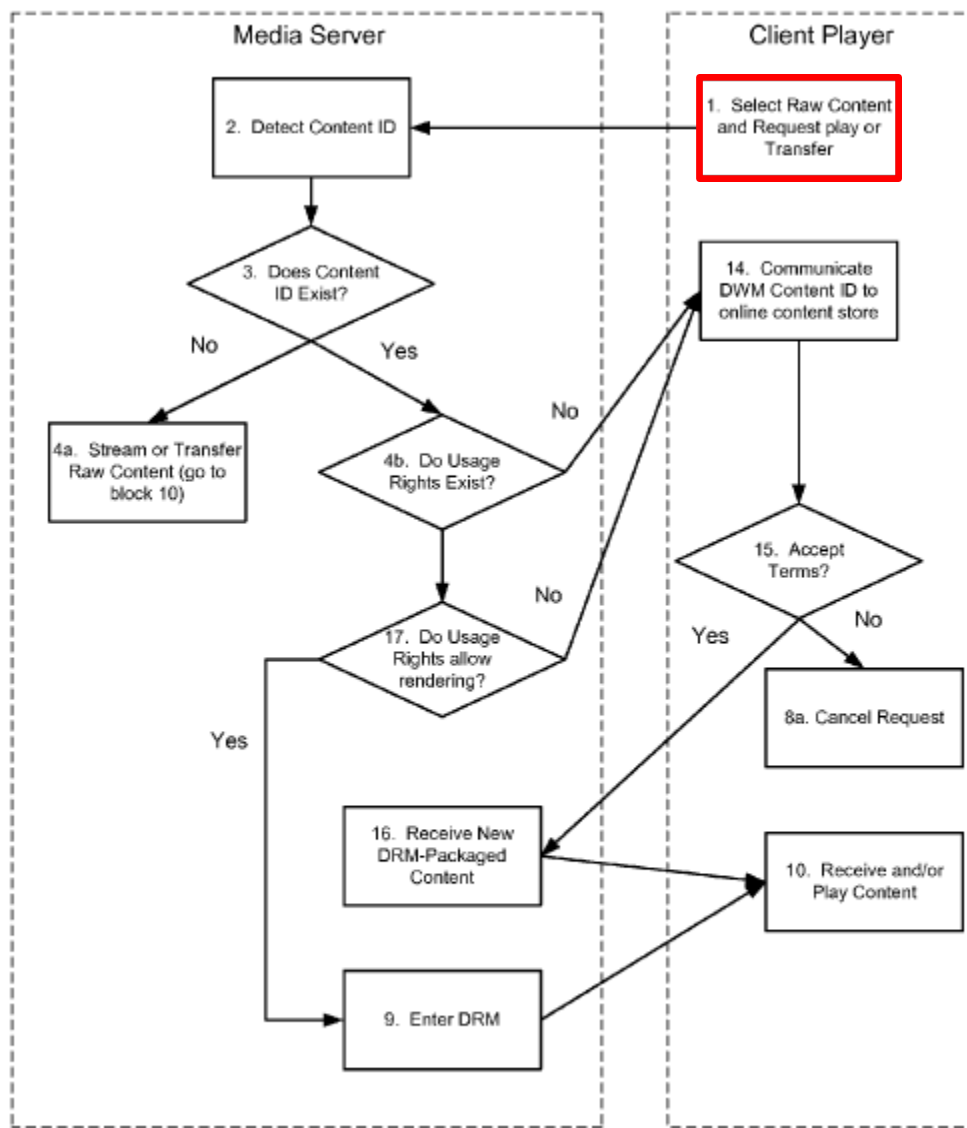


Fig. 17d

EX1006, FIG. 17d (annotated).

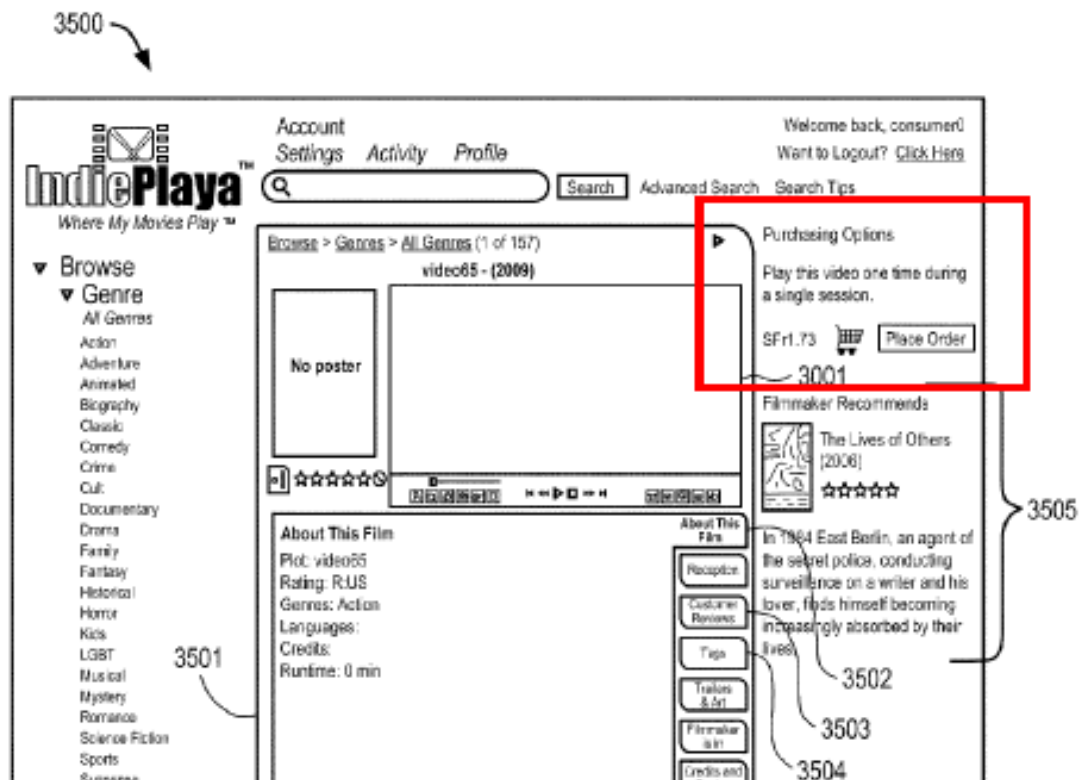
A POSA would have combined Levy and Brandstetter as explained above.

Section VI.C; EX1002, ¶¶309-10.

P. Claim 14 (“display query on the display asking the user whether the user would like to stream”).

Brandstetter allows a user to stream content in response to a display query.

EX1004, ¶¶130, 137, FIGs. 18, 35, 36. For example Figure 35 provides an example interface presenting the user with “one or more licensing packages” for the user to acquire. *Id.*, ¶¶130, 137, 169.



EX1004, FIG. 35 (excerpt, annotated)

Alternatively, Brandstetter describes offering an up-sell query to upgrade a license as illustrated in Figure 35A. *Id.*, ¶¶119-26. A POSA would have understood that such display queries would apply to content the user has already requested but has not obtained a license for. EX1002, ¶¶311-14.

Similarly, Levy discloses providing a query when the user is not licensed to stream media content to prompt the user to acquire or decline a license. In particular, when Levy determines that a user has not previously obtained Usage Rights or that Usage Rights do not allow rendering, Levy's Media Server "receives the usage rights from the rights registry; presents the usage rights for user acceptance; and upon acceptance of the usage rights, provides the usage rights and raw content to a resident digital rights management (DRM) system to control access of the content." EX1006, ¶17, FIG. 17d. As part of presenting the usage rights, the Media Server displays the Usage Rights information on the Client Player Application. *Id.*, ¶110, FIG. 17d; EX1002, ¶¶315-20. Again, a POSA would have understood that such display queries likewise would apply to content the user has already requested but has not obtained a license for. EX1002, ¶¶314, 317.

Q. Claim 15 ("collect and transmit user identification data").

Brandstetter's user interfaces "include[] one or more areas for entering user account information such as a unique challenge (e.g., ***user name and a password***) and any other personal information requested or required by the system." EX1004, ¶165, FIG. 25. When a user inputs his or her username and password, the processor within the user's client device thereby "collects" such information and transmits it to Brandstetter's server to confirm the user's identity. EX1002, ¶¶321-23. Further, users may pay to acquire a license to particular content. Section VI.S.

Brandstetter’s users enter payment information (e.g., billing information) that is verified by Brandstetter’s platform to confirm the user’s identity. EX1002, ¶¶324-26.

R. Claim 16 (“transmit ... fingerprints for confirmation ...”).

Levy uses digital fingerprints to identify particular media content items. Section VI.D.5. Further, Levy states that its “Media Server” (i.e., user device) may communicate a derived “Fingerprint Content ID” to a “Fingerprint Rights Registry to obtain corresponding Usage Rights.” EX1006, ¶140. The Usage Rights convey the license terms for the content item corresponding to the particular fingerprint. EX1002, ¶¶327-28.

Levy’s Fingerprint Rights Registry is the claimed “digital media catalog database.” By transmitting a Fingerprint Content ID to the Registry, Levy’s client device confirms the media content items corresponding to the fingerprints. *Id.*, ¶¶329-32; *compare* EX1001, 7:25-34, 10:41-49 (stating that “the system matches the fingerprint of the media content item included in the license request to a fingerprint in the digital media catalog database to identify the media content item associated with the licensing request.”).

S. Claim 17 (“collect payment”).

Brandstetter-Levy discloses collecting payment from the user to stream content. Brandstetter facilitates the payment of a license for purchase or rental of a media content item as seen in Figure 14. EX1004, ¶¶146-47.

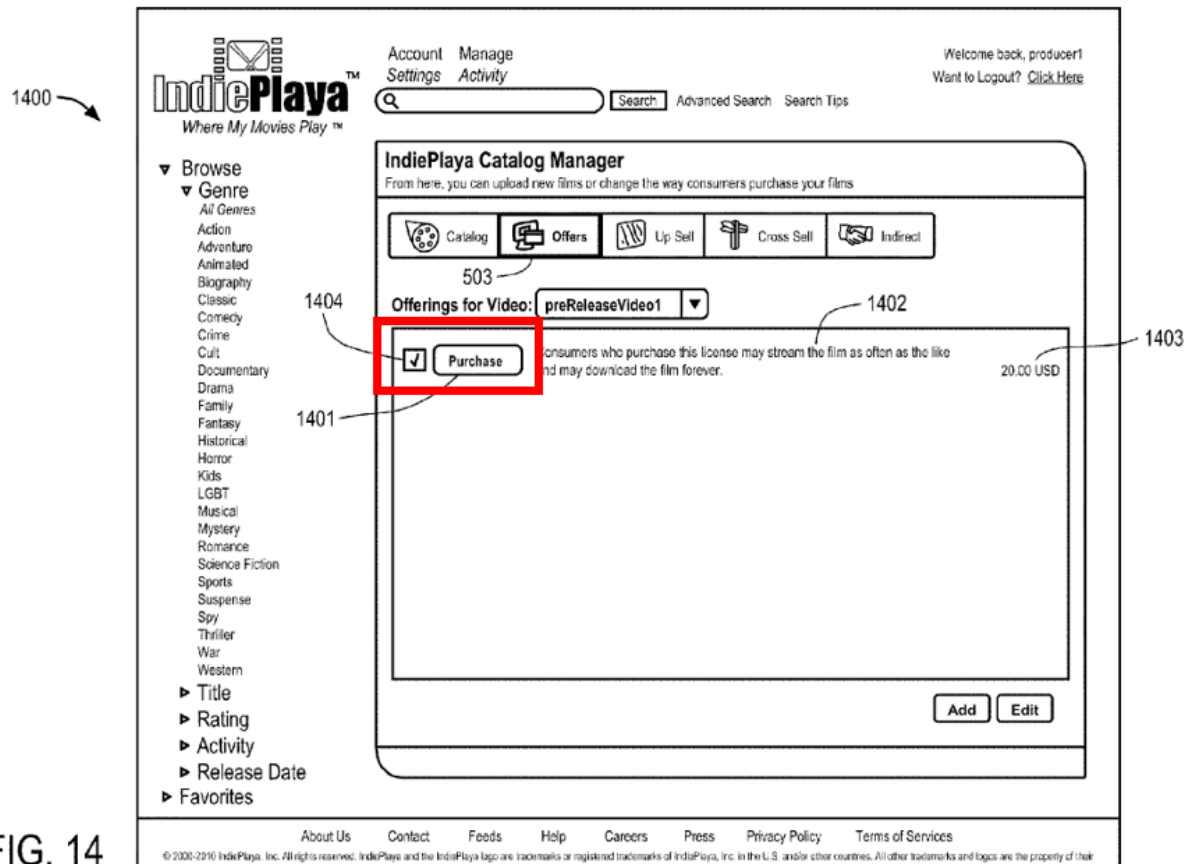


FIG. 14

EX1004, FIG. 14 (annotated).

Users can “pay money” to obtain a license. *Id.*, ¶¶77, 82, 87. Distribution module 140 “receives payment from users in exchange for such distribution via network 121.” *Id.*, ¶98; EX1002, ¶¶333-35.

Levy also facilitates license payments. EX1006, ¶¶44, 110. Acceptance of a license may require payment via an on-line media store. *Id.*, ¶110. Thus, Levy facilitates payments when users “purchase content.” *Id.*, ¶¶11, 112, 117; EX1002, ¶336. A POSA would have understood that when a user inputs payment information into Brandstetter’s or Levy’s interfaces, the processor within the user’s device “collects” the payment from the user to stream the requested content. EX1002, ¶337.

A POSA would have been motivated to implement Levy’s system in Brandstetter’s and had a reasonable expectation of success for the reasons explained above. Section VI.C. Specifically, a POSA would have understood that Levy’s disclosure of payment information from a user would allow Brandstetter’s consumers to purchase digital content from Brandstetter’s system. EX1002, ¶¶338-39.

T. Claim 18 (“transmit ... statistics record in real time”).

Brandstetter states that its activity reports “can be dynamically constructed” and that “***statistics can be automatically generated (e.g., in real-time)*** based upon website activity (e.g., audience 306 interaction).” EX1004, ¶¶74, 133, 172.

Likewise, Brandstetter explains that its platform facilitates “the dynamic (e.g., ‘on-the-fly’) creation and distribution of licensing packages (e.g., ***in real-time***).” *Id.*, ¶134; *see also id.*, ¶¶120-25, 145, 148, 150-53. A POSA would have understood

and it would have been obvious that, in order to target particular users in real time, Brandstetter's user devices transmit statistics records to Brandstetter's database and/or server in real time. EX1002, ¶¶340-43.

VII. GROUND 2: CLAIM 3 IS OBVIOUS OVER BRANDSTETTER-LEVY-RASSOOL.

Dependent claim 3 depends from claim 1 (through claim 2) and requires the unique characteristics of the media files to be “the occurrence of various audio frequencies at particular points in time in the audiovisual work.” EX1001, 15:59-62. As explained above, Levy discloses an algorithm for identifying digital media content, including audiovisual works, using digital fingerprints. Section VI.D.5. Levy does not restrict the type of fingerprinting that can be used to identify digital content and refers specifically to watermarks/fingerprints that can be used to identify “audio” content. EX1006, ¶¶4, 7, 55.

Like Levy, Rassool describes techniques “for identifying a media file transmitted over a network” using fingerprints. EX1016, Abstract, 2:27-45. Rassool explains that its fingerprinting algorithm can be used to uniquely identify an unknown media content item by matching its fingerprint to that of a known item. *Id.*, 5:9-46; *see also id.*, 4:50-52, 6:8, 22:61. With regard to music files, Rassool describes an algorithm in which a fingerprint is generated based on the occurrence of “dominant *frequencies*” at certain times “to represent the melody note that is being played *at that point in the music.*” *Id.*, 23:33-62. Accordingly,

Rassool's algorithm uses as a fingerprint unique characteristics within a song comprising the occurrence of various audio frequencies at particular points in time. EX1002, ¶¶150-52, 344-47, 350.

Rassool's algorithm could be used for audiovisual works containing audio content. EX1016, 6:13-15. Likewise, the algorithm could be used to identify multiple audiovisual works. *Id.*, 23:6-9; *see also id.*, 2:26-45, 4:33-39, 5:9-54; EX1002, ¶¶348-49.

A POSA would have been motivated to use Rassool's fingerprints in Brandstetter's platform to more efficiently identify Brandstetter's audiovisual works and to determine whether a particular consumer is licensed to stream a requested work. Section VI.D.5; EX1002, ¶351. Rassool itself states that its algorithm allows copyright holders to more efficiently manage and track the distribution of their work so as to "police copyright violations of media files." EX1016, 2:19-23, 4:33-47. Rassool expressly states that its algorithm is useful for "determin[ing] whether or not a copyrighted or otherwise protected music file is being offered without permission for distribution or play on the Internet." *Id.*, 23:2-5. A POSA would have understood that Rassool's fingerprinting algorithm would facilitate Brandstetter's goal of monetizing digital media content and had a reasonable expectation of success. EX1002, ¶¶351-52.

VIII. GROUND 3: CLAIMS 1-2, 4-7, AND 9-18 ARE OBVIOUS OVER PELED-POU.

A. Overview of Peled

Peled discloses a system for marketing and distributing digital content over the Internet. EX1003, Abstract, ¶¶1-2, 3, 7, 155. Peled also “provides the ability to study online requests for content”—and most importantly, “**online requests that do not result in a sale.**” *Id.*, ¶¶155, 168-69, 175-78, 186, 196-97. Peled provides user data and “statistical information” to third parties such as content providers 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; EX1002, ¶¶118-30.

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. Pou’s system includes a “central server” 240, as well as a plurality of “user devices” 205, which communicate via the Internet 245. *Id.*, ¶¶31, 43, 57. Pou, like the ’154 patent, uses “watermarking and fingerprinting techniques” to identify the content, which Pou notes were “known in the field of digital rights management.” *Id.*, ¶¶13, 51, 53-54; EX1002, ¶¶143-49.

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 and fingerprinting 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, ¶¶353-54. For example, a POSA would have recognized that Pou’s content licensing, tracking of previously obtained media licenses, and offering of new media licenses to consumers would improve Peled’s management of content purchases and gathering of user data related to media transactions. *Id.*, ¶¶353-57. 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). *Id.*, ¶¶358-62.

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, ¶¶359-63. 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, ¶¶363-64. Pou's checking of whether a user has already obtained a license 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, ¶¶360-61. For example, a fingerprint is a compact, "reduce-bit representation of content" and therefore provides fast and computationally efficient comparisons. EX1006, ¶¶140, 142; EX1002, ¶¶359-64.

The combination of Peled-Pou would also help combat and prevent "illegal content distribution." EX1003, ¶184; EX1005, ¶3; EX1001, 1:26-47. 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, 196-98, 200; EX1002, ¶¶364-65.

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, ¶¶366-68. 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

license and potentially identify reasons for refusal. Section VIII.C.1; EX1002, ¶366.

Both Peled and Pou describe conventional server systems for managing digital media files. EX1003, ¶¶164-66; EX1005, ¶¶55, 59. A POSA would have 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, ¶¶367-68; EX1003, ¶¶168-69.

D. Peled-Pou Discloses Claim 1.

1. [1P].

Peled describes a computer-based method “for supporting the distribution of products, services and especially electronic content over a network,” and refers specifically to digital media content such as movies. EX1003 ¶¶1, 7, 10, 158, 166, 175-77. Peled’s server-based apparatus 20 is able to instruct sites holding requested media content items to supply the content to various “content [] consumers” 14 over a network 22. *Id.*, FIG. 6, ¶173.

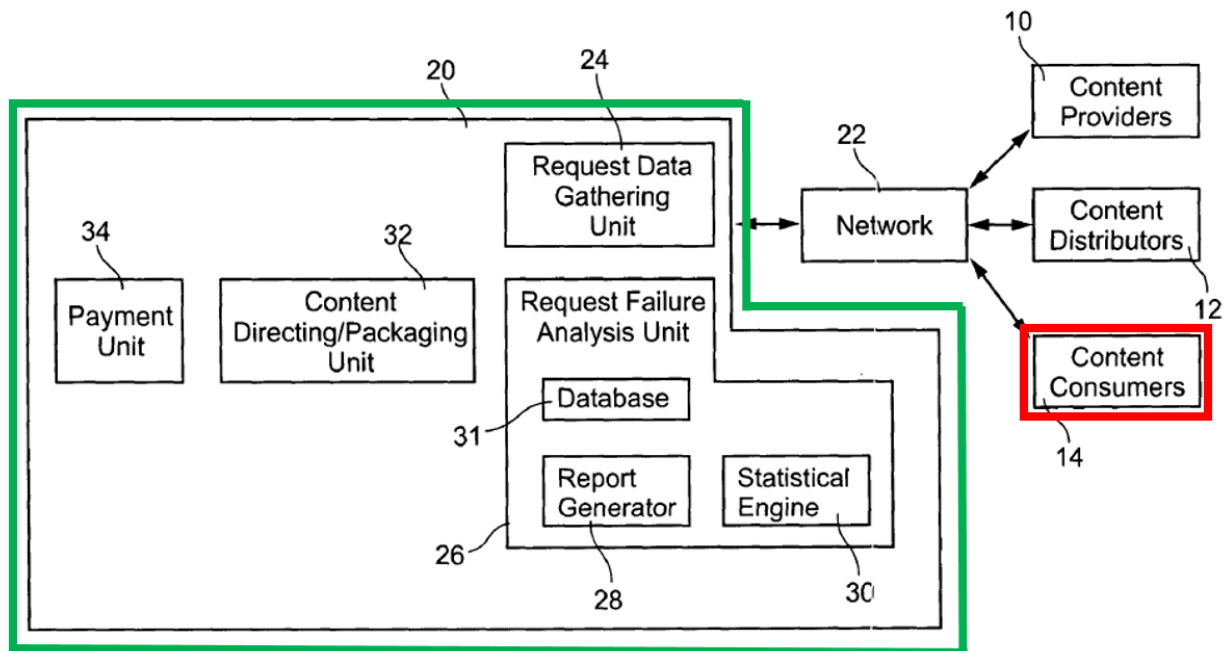


Fig. 6

EX1003, FIG. 6 (annotated).

Consumers use a general-purpose computer (i.e., the claimed “multimedia hardware device”) to consume the content. *Id.*, ¶¶121, 159; EX1002, ¶¶369-70.

Pou also describes streaming media files to a “user device.” EX1005, ¶¶50, 55, 64, 108-10. A POSA would have combined Pou and Peled and had a reasonable expectation of success for all the reasons described above. Section VIII.C; EX1002, ¶371.

2. [1A]: “a processor.”

Conventional computing devices such as Peled’s consumer devices contain processors. In any event, Pou’s “user device 205 includes **a processor 210.**” EX1005, ¶¶57, 113; EX1002, ¶¶372-73.

3. [1B]: “a memory.”

Conventional computing devices such as Peled’s consumer devices contain memory. Likewise, Pou’s “user device 205 includes a processor 210, *which may execute instructions stored in a memory 215.*” EX1005, ¶¶57, 113; EX1002, ¶¶374-75.

4. [1C]: “generate a first request ...”

Peled’s system distributes digital media content, such as movies, to its consumers over a network. EX1003 ¶¶1, 7, 10, 158, 166, 175-77. Each item corresponding to such content is a “media content item.” *See, e.g., id.*, ¶¶14-15 (referring to “*content items*” corresponding to requested media content).

Consumers can make “online *requests for content*” using their computing devices by interacting with a website to browse and “order content.” *Id.*, ¶¶61, 155, 158-59, 161, 164, 175-78, 180. A POSA would have understood that Peled’s consumer requests are generated by the processors within the consumers’ client devices. EX1002, ¶¶376-77.

Peled’s distribution of content includes “streaming” a media content item contained in a digital media file in response to consumer requests. EX1003, ¶¶178, 197. Likewise, Peled describes scenarios in which a consumer “requests content via *streaming video.*” *Id.*, ¶178. Requests to stream are in fact requests to “evaluate streaming” because consumers may *ultimately* “decline[] to complete the

transaction” even after having requested a particular media content item. *Id.*,

¶¶176-77; EX1002, ¶¶378-79.

5. [1D]: “identify the first media content item by determining a first media fingerprint ...”

Peled’s system identifies requested media content items in response to consumer requests. EX1002, ¶380. Indeed, Peled’s system “independently analyz[es] content requests” for that purpose. EX1003, ¶158. Peled explains that, to fulfill a consumer’s request for media content, Peled’s server “knows where content is located around the Internet and is able to instruct such locations to supply content to consumers in accordance with its directions.” *Id.*, ¶173; *see also id.*, ¶¶80, 94, 111, 158-60, 182; EX1002, ¶¶380-81.

And, while Peled may not expressly disclose using fingerprints to identify media content, Pou does. Pou describes an algorithm by which multimedia files are “examined using file identification software in an attempt to *identify* the file” (step 110). EX1005, FIG. 1, ¶¶13, 51, 42, 64, 82.

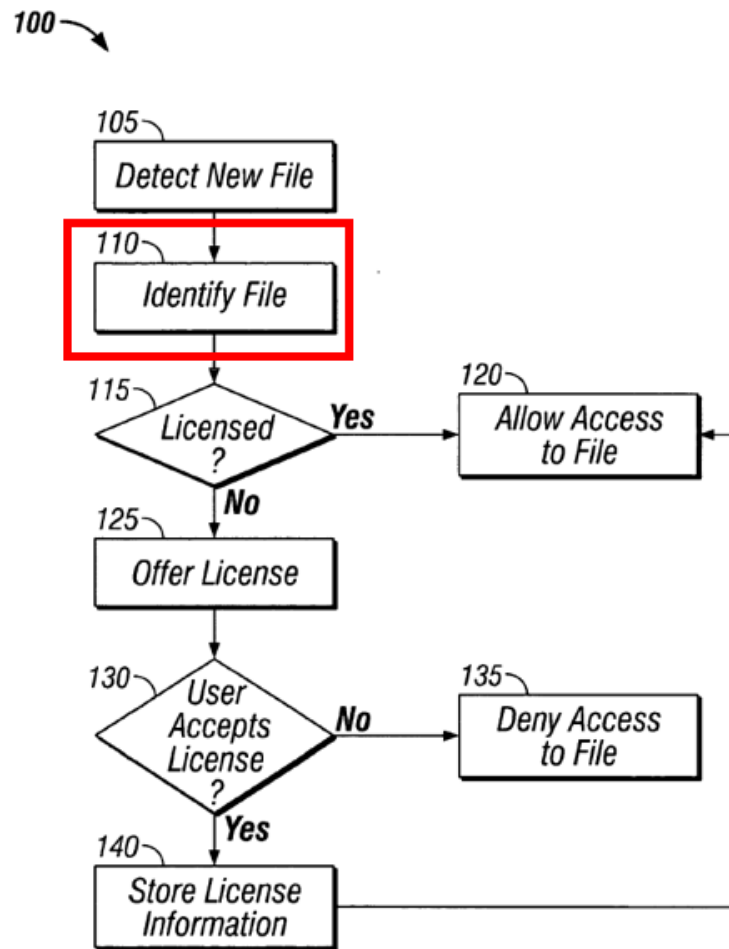


FIG. 1

EX1005, FIG. 1 (annotated).

This identification can be performed using “***fingerprinting*** techniques,” which Pou emphasizes were “known in the field of digital rights management.” *Id.*, ¶54. Pou’s software can extract from a file “a digital fingerprint” that embodies the “internal attributes” of the file and “compare[] the extracted fingerprint to a database of known works.” *Id.*, ¶¶13, 51, 54, 82. Thus, Pou’s fingerprints identify a unique characteristic inherently present in the media content item captured during

recorded creation of the media content item, and excluding information introduced to the media content item extraneous to the recorded creation. EX1002, ¶¶382-84.

Indeed, Pou uses the same language to describe its fingerprinting algorithm as the '154 patent itself. EX1005, ¶¶53-54 (stating that fingerprints are based on “***implicit characteristics***” of a media content item and “allow for accurate identification of the file ***even if someone has attempted to disguise the file***”). Pou also incorporates by reference Wells, which explains that fingerprints are derived from “***intrinsic properties of***” digital content and are advantageous because “***nothing is added***” after the content has been recorded. EX1005, ¶51; EX1049, ¶19. Further, Pou incorporates by reference Roberts, which states that fingerprints can be used with other information to “differentiat[e] ***between live and studio version of the same song.***” EX1005, ¶51; EX1063, ¶46; EX1002, ¶¶385-86.

Pou describes its identification algorithm occurring on a user device. EX1005, ¶¶51 (at steps 105 and 110 of FIG. 1, Pou describes detecting a loaded file and then identifying the file), 57 (user device 205 “may monitor files and other data that pass through the I/O port 225 for purposes of identifying protected (e.g., copyrighted) music, video, software, or other files.”); EX1002, ¶387.

A POSA would have been motivated to implement Pou’s fingerprinting identification algorithm at Peled’s user devices and had a reasonable expectation of

success for all the reasons previously discussed. Section VIII.C; EX1002, ¶¶388-89.

6. [1E]: “extract first user data specific to the user when the user accepts to stream the first media content item.”

Peled extracts user demographic data when users accept to stream content. EX1003, ¶¶1-2, 169, 172, 175-77, 186. Indeed, Peled analyzes personal data for “approved purchase requests” and content “actually sold.” *Id.*, ¶¶2, 177, 199. The user data “may include profiles of *individual* consumers or groups of consumers,” including “geographical factors” or “personal data.” *Id.*, ¶169; *see also id.*, ¶¶56-57, 74, 169-77, claims 31-32, 45-46, 128-29, 142-43. Peled then generates “reports” for content providers, which summarize the user data. *Id.*, ¶168; *see also id.*, ¶¶54, 69-70, 155, 168-69, 172, 175, 180, 183; EX1002, ¶¶390-91.

Because the user data is collected when the user makes a purchase, the processor within the client device transmits a request to Peled’s system to purchase the requested media content item and to extract data associated with the user. EX1002, ¶392. Thus, the execution of the extraction step originates with the client device’s processor. Further, a POSA would have found it obvious to perform the extraction itself on the user’s client device. *Id.*, ¶393; EX1003, ¶¶156, 201 (stating that Peled’s 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).

Performing the extraction step on the client's device—where the data already resides—would ensure that the consumer's personally identifying information is not sent to Peled's server, thus protecting such data. Indeed, Peled itself states that protecting consumer data is an important objective. EX1003, ¶¶161 (stating that Peled's activity reports are preferably generated “in such a way as not to interfere with privacy of individual consumers”), 187, 191. It would also ensure that user data can be collected and used to recommend content for multiple users using the same device, and even when the device is offline. Section VI.D.6; EX1002, ¶¶393-98.

7. [1F]: “generate a second request ...”

As explained above, Peled's client devices generate requests to evaluate streaming a media content items. Section VIII.D.4. Further, Peled states that its system can “provide *different content items* from different data holding sites to fulfill a single request.” EX1003, ¶¶14, 23, 28, 80, 94, 111, 159, 167-68. Thus, a single user could request to evaluate streaming multiple media content items, and each of those requests is generated by a processor with the user's client device. Section VIII.D.4; EX1002, ¶¶399-401.

8. [1G]: “identify the second media content item by determining a second media fingerprint ...”

As explained above, Pou identifies a media content item by determining a media fingerprint that identifies a unique characteristic inherently present in the

item. Section VIII.D.5. Pou describes its fingerprinting algorithm in the context of media content distribution, generally, and states that the algorithm “can be used to recognize” multiple media “files.” EX1005, Abstract; Section VIII.D.5; EX1002, ¶¶402-04.

9. [1H]: “extract second user data specific to the user when the user declines to stream the second media content item.”

Peled also extracts user data when a consumer *declines* to stream media content. EX1003, ¶¶155, 169, 175-77, 186. Peled explains that its “system further provides the ability to study online requests for content or for products and services in general, *in particular for online requests that do not result in a sale*, for the purpose of providing content providers with information about potential new markets that are currently being excluded and also to provide consumers with acceptable alternatives.” *Id.*, ¶155.

A user may *implicitly* decline to stream content—e.g., “where a consumer simply looks at a content item but then chooses not to buy it.” *Id.*, ¶185; EX1002, ¶¶405-06. Alternatively, a user may *explicitly* decline to stream content—e.g., where a user “made a purchase attempt” but then aborted the attempt. EX1003, ¶185. Indeed, Peled describes several examples of extracting user data based on a user declining to stream content. In one example, an Italian-speaking consumer requests a movie from an American-based company only to discover that the movie is in English and does not have subtitles. The consumer thus “declines to

complete the transaction.” *Id.*, ¶176. Peled’s system notes the refusal and extracts from the consumer’s profile his or her “location in Italy.” *Id.*, ¶¶176-77; EX1002, ¶¶406-07. By tracking this information, Peled’s system can determine the reason why the requested media content item was declined. EX1003, ¶186; EX1002, ¶408.

Further, as explained above, the execution of the extraction step originates with the client devices, and, in any event, a POSA would have found it obvious for Peled’s client devices to perform the extraction step and had a reasonable expectation of success. Sections VIII.C, VIII.D.6; EX1002, ¶¶409-10.

10. [1I]: “aggregate the extracted ... data into a first[/second] statistics record ...”

Peled aggregates gathered user demographic information, such as “personal data,” geographic location, and age. EX1003, ¶¶1-2, 169, 172, 175-77, 186, 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, ¶¶411-12.

And, as explained above, Peled collects for analysis—and thus aggregates into statistics records—user data both when a user accepts *and* declines to stream content. Section VIII.D.9. Further, Peled’s system can aggregate data on a per-user basis or per-content item basis such that each user’s data or data corresponding to a

particular content item is aggregated into a different record. EX1003, ¶¶169, 172, 180, ¶183 (noting that collected data can be provided into reports “on a per content item basis”); EX1002, ¶413.

A POSA would have found it obvious to perform the aggregation on Peled’s client devices and had a reasonable expectation of success for all the reasons stated above. Sections VIII.C; EX1002, ¶¶414-15.

11. [1J]: “transmit to a database the first[/second] statistics record ... so that the summarized first and second user data is accessible to a third party online retailer ...”

Peled stores user demographic data within a user profile in “database 31.”

EX1003, ¶¶169-70, FIG. 6; Section VIII.D.10.

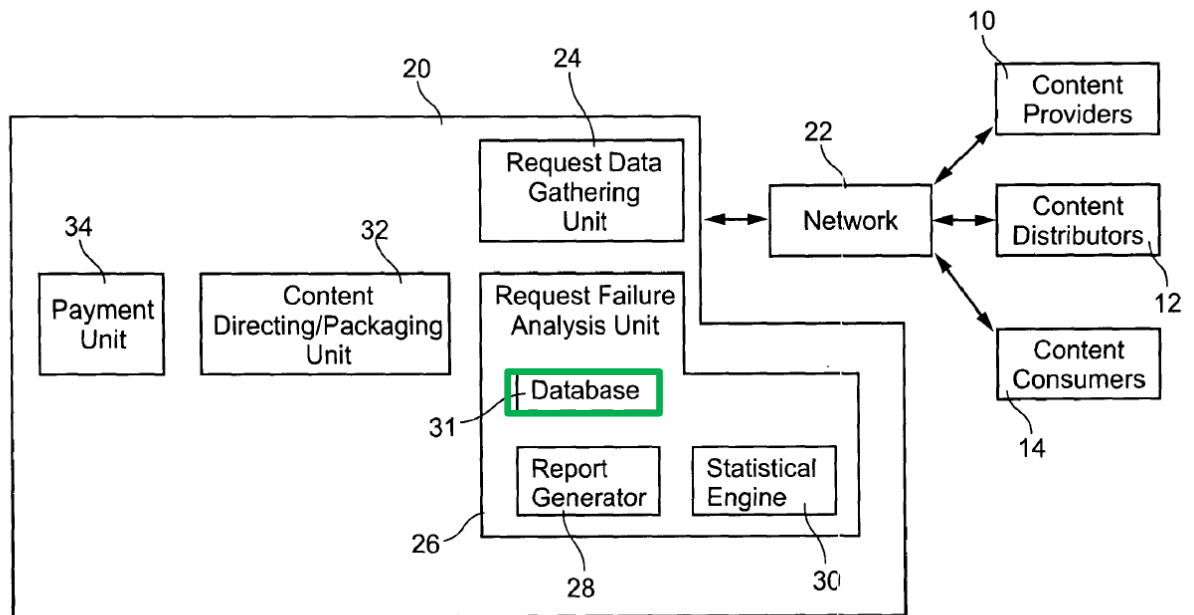


Fig. 6

EX1003, FIG. 6 (annotated).

A POSA would have understood and found it obvious that such data could be stored in a database on the client device as well. EX1002, ¶¶416-20. A POSA likewise would have understood that the statistics records are “transmit[ted]” to the database to be stored there. *Id.*, ¶421.

Peled describes storing a statistics record in a database to generate reports for content providers. Section VIII.D.13. “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. The reports, in turn, are “provided ... to individual content providers” or any “party requesting the report.” *Id.*, ¶¶168, 183; Section VIII.D.14. Specifically, Peled explains that reports may be provided “on a content provider basis, or on a per distributor basis.” EX1003, ¶183. Peled uses the term “distributor” or “content distributors 12” to refer to third-party online retailers. *Id.*, ¶¶157-58, 166, FIGs. 1-2, 6. And, in fact, Peled refers specifically to “**content retailers**” who make content available to consumers “via the Internet.” *Id.*, ¶157; EX1002, ¶¶423-29.

A POSA would have found it obvious to transmit not only the statistics records themselves, but also “the identities of the first and second media content items determined by the first and second media fingerprints” for all the reasons stated above. Sections VIII.C, VIII.D.5; EX1002, ¶422.

12. [1K]: “retrieving the ... statistics record with the identities of the first and second media content items ...”

Again, the claim element does not require the retrieving step to be performed by the user’s multimedia hardware device, but rather, describes an intended use. EX1002, ¶430. To the extent the claim element requires *actual* retrieval of data, the element does not specify who or what does the retrieving. *Id.*

Regardless, Peled discloses this element. As explained above, Peled’s user “profiles” (i.e., the claimed “statistics records”) are stored in a database. Section VIII.D.11. Peled makes clear that its profiles are provided to content providers and other interested third parties in the form of reports. Section VIII.D.14. The user profiles are “retrieved” from the database in which they are stored before being provided to requesting parties. EX1002, ¶431.

Further, as explained above, Pou discloses identifying a requested content item based on the item’s fingerprint. Section VIII.D.5. Given that Pou’s fingerprint corresponds to a unique identifier for a media content item, a POSA would have been motivated to use such a fingerprint to identify a media content item and to retrieve Peled’s reports from the database based on that identity, and had a reasonable expectation of success for all the reasons explained above. Sections VIII.C, VIII.D.5; EX1002, ¶¶432-33.

**13. [1L]: “analyzing the retrieved ... statistics record to
determine a target demographic ...”**

Again, the claim element does not require the analyzing step to be performed by the user’s multimedia hardware device, but rather, describes an intended use. EX1002, ¶434. To the extent the claim element requires *actual* analysis of data, the element again does not specify who or what does the analyzing. *Id.*

Regardless, Peled analyzes a plurality of statistics records and provides aggregated user data to content providers in the form of reports. EX1003, ¶169. Peled describes building a “personal profile” for individual users and a profile for “groups of consumers.” *Id.*, ¶¶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. The analyzed data pertains to users who have both accepted and declined content, and thus “reveal an otherwise hidden demand for products and/or services in segments that a company is not selling to or serving at a given time.” *Id.*, ¶196.

A single report for each media content item may be generated, or a single report for multiple content items may be generated. *Id.*, ¶183 (explaining that aggregated data is provided into reports “either on a per content item basis, or on a content provider basis, or on a per distributor basis”); EX1002, ¶¶435-41.

14. [1M]: “providing the third party online retail[er] the target demographic to market the media content item ...”

Again, the claim element does not require the providing step to be performed by the user’s multimedia hardware device, but rather, describes an intended use. EX1002, ¶442. To the extent the claim element requires **actual** provision of a target demographic, the element again does not specify who or what does the providing. *Id.*

Regardless, Peled describes “providing” reports—which convey a target demographic—to content providers and third parties, such as content distributors over the Internet. EX1003, ¶¶93, 110, 127, 177, 183. As explained above, Peled’s third-party content distributors disclose third-party online retailers. Section VIII.D.11; EX1002, ¶443.

The reports contain target demographic information and may be used by the requesting party to engage in targeted marketing of that demographic. Section VIII.D.13. In particular, Peled explains that its reports are analyzed to enable requesting parties “to **focus marketing efforts on potential market segments (both for the relevant content and for similar content items).**” EX1003, ¶200. Peled makes clear that such segments includes the “**type of buyers and their characteristics, and more.**” *Id.*, ¶196; EX1002, ¶¶444-47.

E. Claim 2 (audiovisual works).

Peled's system allows consumers to request and stream different types of digital media content, including movies, which are types of audiovisual works.

Section VIII.D.4; EX1003, ¶¶7, 158, 175-77; EX1002, ¶¶448-49.

A POSA would have understood that a consumer could request different versions of audiovisual works, as Peled refers to multiple versions of movies. EX1003, ¶¶159, 175-76 (describing “an edited version of [a] movie which is suitable for all ages” and foreign-language versions); EX1002, ¶¶450-51.

F. Claim 4 (“live version” and “studio version”).

Peled refers to streaming multiple versions of movies, including “lower resolution or edited versions of the movie,” as well as English and foreign-language versions. *Id.*, ¶¶158-59, 175-76. Each of these versions may be subject to different licensing terms. EX1002, ¶¶452-53. Peled's disclosure applies equally to any versions of an audiovisual work that would require different licenses, which would include live and studio versions of works, both of which were well known. *Id.*, ¶¶454-55; EX1005, ¶51; EX1063, ¶46; Section VI.F.

G. Claim 5 (first version “authorized for streaming” and second version “unauthorized for streaming”).

As explained above, Peled's system distributes digital media content items to users who are authorized to stream them. Section VIII.D.4. For example, Peled describes the ability for consumers to “order content” and thus successfully

consume the content. EX1003, ¶159. The authorization derives from the copyright owner of the requested content, which is the person or entity that has the ability to provide such authorization. EX1002, ¶¶456-57.

Peled also contemplates that users may not be authorized to stream certain requested content. Indeed, Peled states that its system can be used to analyze “unauthorized content distribution.” EX1003, ¶¶89, 103, 120, claims 58, 70, 82, 155, 167, 179. Peled also describes different “business rules” and “distribution restrictions” that “are associated with individual content items,” as well as the ability to offer content to users in a manner that “coincides with” those restrictions. *Id.*, ¶¶9, 15-17, 24-25, 32, 81-83, 95-97, 112-14, 140-41, 162, claims 15, 32, 46, 49, 51, 57, 61-63, 73-75, 98-99, 129, 143, 146-48, 158-60, 170-72, 196. These rules and restrictions control the manner in which a user may stream or reproduce content. A POSA would understand that the lack of authorization derives from the copyright owner of the requested content. EX1002, ¶¶458-59.

H. Claim 6 (“book in digital format”).

Peled refers generally to electronic media “content,” and does not limit the type of content that can be used with its system. EX1002, ¶¶460-61. Further, Peled specifically refers to “books” in describing the problems inherent in online targeted marketing that its system ties to solve. EX1003, ¶7. A POSA would have

understood that Peled’s system likewise distributes books in digital format, or “e-books.” EX1002, ¶461.

Similarly, Pou states that its fingerprinting and licensing algorithms can be used for “any type of proprietary **digital files** including music and other recordings, movies and other video, **books** and other written works, and other files[.]”

EX1005, ¶42. Pou’s digital books—like any other type of digital media content—could be requested by Peled’s system. EX1002, ¶462. A POSA would have understood that users could request different versions of such books. Section VIII.G; EX1002, ¶¶463-64.

I. Claim 7 (“geographic location”).

Peled discloses tracking “geographical location” information as part of the stored demographic data. Section VIII.D.6; EX1003, ¶¶56, 74, 169, 176, 186, 196; EX1002, ¶¶465-67.

J. Claim 9 (“receive a license” and “prevent streaming ... when the request is declined by the licensing system”).

Pou updates its 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.” *Id.*, ¶¶25-27, 56, 101; EX1002, ¶¶468-71.

Pou prevents reproduction when the licensing request is declined, for example, when “no payment method offered is validated.” EX1005, ¶¶56, 80;

EX1002, ¶¶472-73. A POSA would have been motivated to use this feature of Pou's system in Peled's system to prevent contravention of licenses and had a reasonable expectation of success. Section VIII.C; EX1002, ¶474. Further, Peled also describes declining a request to obtain a license based on business rules as well as to prevent fraud. EX1003, ¶¶175, 187; EX1002, ¶475.

K. Claim 10 (“plurality of streaming 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, 175-76 (“Italian subtitles” and age restrictions). These examples show Peled streaming content based on different parameters. EX1002, ¶¶476-79.

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, 103-11. Pou's duration and use license terms also disclose the claimed parameters. EX1002, ¶¶479-82.

L. Claim 11 (“digital watermark”).

Pou discloses identifying media content using “watermarking” techniques. EX1005, ¶54. In particular, media content files “can be *identified using* implicit

characteristics *of the file* (e.g., a fingerprint or *watermark*).” *Id.*; EX1002, ¶¶483-84.

Pou’s watermarking algorithm can be performed at Pou’s client device, and it would have been obvious to use that algorithm in Peled’s client devices for all the reasons described above. Sections VI.M, VIII.C, VIII.D.5; EX1002, ¶¶485-86.

M. Claim 12 (“digital watermark is metadata”).

A POSA would have understood that Pou’s watermarks could comprise metadata within media files. As explained above, using content identifiers and watermarks in metadata was a well-known way to identify digital media content. Section VI.N; EX1002, ¶¶487-88. Indeed, Pou itself states that media files can be identified using characteristics such as a “file identifier stored in a file header.” EX1005, ¶54; EX1002, ¶¶488-91.

N. Claim 13 (“load a first digital media file for reproduction”).

Pou discloses “loading” digital media files for reproduction at the user device (step 105 of Figure 1). EX1005, ¶¶50-51, 65, 107, 111; EX1001, 4:13-22, 6:57-67; EX1002, ¶¶491-95.

A POSA would have combined Pou and Peled to manage media purchases or licenses already obtained by a user and had a reasonable expectation of success. Section VIII.C; EX1002, ¶¶496-97. Pou’s scanning of a media file loaded onto a user device would also help identify potential illegal content distribution and

further Peled's goal of providing accurate statistical reports. EX1003, ¶¶168, 183-84, 199; EX1002, ¶¶496-97.

O. Claim 14 (“display query on the display asking the user whether the user would like to stream”).

Peled describes its “content distribution site 2 [] offering a range of content items to consumers and receiving requests from consumers for the content, essentially a typical website for browsing and through which consumers are able to order content.” EX1003, ¶159; *see also id.*, ¶¶28, 176-77 (describing alternative offers of content that overcome distribution restrictions). The offering of content items to consumers discloses a display query asking the user whether the user would like to stream the content. A POSA would have understood that such display queries likewise would apply to content the user has already requested but has not obtained a license for. EX1002, ¶¶498-500.

Similarly, Pou discloses offering a license to the user (e.g., step 125 of Figure 1). EX1005, ¶56. In particular, “a pop-up window may appear on a display screen for the user device asking whether the user wishes to purchase a license to the file or otherwise accept certain license terms and/or the user may be directed to a website where a purchase can be completed.” *Id.* This “pop-up” window is a display query asking whether the user would like to stream content. *Id.*, ¶¶56, 77-79; EX1002, ¶¶501-03. And, again, a POSA would have understood that such a display query would apply to content the user has already requested but has not

obtained a license for. EX1002, ¶¶504-06.

P. Claim 15 (“collect and transmit user identification data”).

Peled states that one of its user interfaces “may use an identification detection mechanism for detecting details that *identify a consumer*.” EX1003, ¶¶135-39, 191-93. A “temporary ID”—e.g., a “transaction ID or a session ID”—may be used for such purposes. *Id.*, ¶193. A POSA would have understood from this disclosure that when the consumer’s client device detects such details, it “collects” such information and transmits it to Peled’s server to confirm the consumer’s identity. EX1002, ¶¶507-08.

Likewise, Pou describes a user entering into an interface on his or her user device a “unique user name or ‘handle,’ a password, an email address, and other user input information.” EX1005, ¶88. When the user does so, he or she is able to “access the user’s license and other information stored in the central database and/or to access a local database specific to the user on a user device 505 that may be shared by multiple users.” *Id.*; *see also id.*, ¶¶11, 17, 44, 94-95; EX1002, ¶¶509-12.

Q. Claim 16 (“transmit ... fingerprints for confirmation ...”).

Pou explains that in its “digital fingerprinting detection” algorithm, “information relating to an authorization to access the data file can be conducted in a license database associated with a remote server.” EX1005, ¶13. In particular,

software installed on the user's device "extracts a digital fingerprint from a digital file and compares the extracted fingerprint to a database of known works" that resides on the server. *Id.*, ¶¶51-52 (explaining that "[f]ingerprinting data that allows the specific media file to be identified may be stored at a central server and accessed using an Internet connection."). APOSA would have understood that Pou's database of fingerprints and known works is the claimed "digital media catalog database." EX1002, ¶¶513-14. Pou's user device transmits extracted fingerprints to the server so that the system can compare the fingerprints to those corresponding to known works—i.e., to confirm the media content items with which the fingerprints are associated. *Id.*, ¶¶515-18.

R. Claim 17 ("collect payment").

Peled-Pou discloses collecting payment from the user to stream content. EX1002, ¶¶519-20. Peled's content distribution system includes a "payment unit 34" that facilitates content payment. EX1003, ¶179. Pou also describes tracking and facilitating payments and storing license information for purchased licenses. EX1005, ¶¶48, 79-80, 85, 101; EX1002, ¶521. "If the user decides to purchase a license, ***payment information is obtained from the user and sent to the central server*** (step 445)." EX1005, ¶¶85, 101. When a user inputs payment information into Peled's or Pou's interfaces, the processor within the user's device "collects" the payment from the user to stream the requested content. EX1002, ¶¶521-22.

A POSA would have been motivated to implement Pou’s system in Peled’s and had a reasonable expectation of success for the reasons explained above.

Section VIII.C; EX1002, ¶¶523-25.

S. Claim 18 (“transmit ... statistics record in real time”).

Peled describes the “real time distribution of online content” and states that its statistics are “analyzed in real time” in order to dynamically up-sell content to the user. EX1003, ¶¶155, 168, 198. A POSA would have understood and it would have been obvious that, to target particular users in real time, Peled’s consumer devices transmit statistics records to Peled’s database and/or server in real time. EX1002, ¶¶526-28.

IX. GROUND 4: CLAIM 3 IS OBVIOUS OVER PELED-POU-RASSOOL.

As explained above, Pou discloses an algorithm for identifying digital media content, including audiovisual works, using digital fingerprints and does not restrict the type of fingerprinting that can be used. Section VIII.D.5. Rassool describes an algorithm in which a fingerprint is generated based on the occurrence of “dominant frequencies” at certain times “to represent the melody note that is being played at that point in the music.” EX1016, 23:33-62; Section VII; EX1002, ¶¶150-52, 529-35.

A POSA would have been motivated to use Rassool's fingerprints in Peled's system and had a reasonable expectation of success for all the reasons discussed above. Section VII; EX1002, ¶¶150-52, 536-37.

X. GROUND 5: CLAIM 8 IS OBVIOUS OVER PELED-POU-BRANDSTETTER.

Claim 8 depends from claim 1 and requires the user data to include "the number of times the user requested to evaluate streaming" the media content items. EX1001, 16:16-20. Peled discloses tracking user data including additional media content items and is also tracked as user data. Section VIII.D.6; EX1003, ¶¶162, 169, 177, 181, 150-53, 200. Brandstetter also tracks a quantity of times that the user has previously accessed the media content item. EX1004, ¶¶147, 173; EX1002, ¶¶538-41; Section VI.J.

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, ¶542. 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, ¶542; 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. EX1003, ¶177; EX1002, ¶542; 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, ¶¶542-43.

XI. SECONDARY CONSIDERATIONS OF NON-OBVIOUSNESS.

Petitioner is unaware of any evidence of secondary considerations, or that PO has made any non-conclusory assertions of any secondary considerations of non-obviousness. EX1002, ¶¶544-45.

XII. THE BOARD SHOULD NOT EXERCISE ITS DISCRETION TO DENY THIS PETITION.

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 '154 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 § 314(a).

1. This case is at its very earliest stages.

The Board should reach the strong merits of this Petition. The *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 '154 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 § 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 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. *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. Therefore, *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).

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 (Brandstetter and Peled)—

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, 157-83. 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 '154 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 Northern District of California, Case No. 3-21-cv-09528 (NDCA), and is currently pending.

The '154 patent and U.S. Patent Nos. 9,898,590, 10,657,226, 10,515,191, 10,860,691, 10,650,120, and 10,489,560 claim the benefit of U.S. Patent No. 9,715,581. 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 U.S. Patent Nos. 9,715,581 (IPR2022-00389), 9,898,590 (IPR2022-00390), 10,489,560 (IPR2022-00391), 10,515,191 (IPR2022-00392), and 10,860,691 (IPR2022-

00393), 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 '154 patent is available for IPR, and that Petitioner is not barred or estopped from requesting an IPR of the '154 patent. The assignee of the '154 patent, Media Chain, LLC, served a complaint against

***Petition for Inter Partes Review of
U.S. Patent No. 10,885,154***

Petitioner in the Western District of Texas (case no. 1:21-cv-00027) on January 19, 2021, asserting the '154 patent. EX1069.

XV. CONCLUSION

The Board should institute IPR and find all claims 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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APPENDIX A: LISTING OF CHALLENGED CLAIMS

1. **[1P]** A multimedia hardware device comprising:

[1A] a processor; and

[1B] a memory coupled with the processor, the memory including instructions that, when executed by the processor cause the processor to:

[1C] generate a first request from a user to evaluate streaming a first media content item to the device;

[1D] identify the first media content item by determining a first media fingerprint that identifies a first unique characteristic inherently present in the first media content item captured during the recorded creation of the first media content item, and excluding information introduced to the first media content item extraneous to the recorded creation;

[1E] extract first user data specific to the user when the user accepts to stream the first media content item;

[1F] generate a second request from the user to evaluate streaming a second media content item to the device;

[1G] identify the second media content item by determining a second media fingerprint that identifies a second unique characteristic inherently present in the second media content item captured during the recorded creation of the second media content item, and excluding information

introduced to the second media content item extraneous to the recorded creation;

[1H] extract second user data specific to the user when the user declines to stream the second media content item;

[1I] aggregate the extracted first user data into a first statistics record and the extracted second user data into a second statistics record, wherein the first statistics record summarizes the first user data and the second statistics record summarizes the second user data; and

[1J] transmit to a database the first and second statistics record with the identities of the first and second media content items determined by the first and second media fingerprints so that the summarized first and second user data is accessible to a third party online retailer for

[1K] retrieving the first and second statistics record with the identities of the first and second media content items determined by the first and second media fingerprints,

[1L] analyzing the retrieved first and second statistics record to determine a target demographic of the first and second media content items based on a demographic corresponding to the first and second user data, and

[1M] providing the third party online retainer the target demographic to market the media content item to a plurality of other users corresponding to the target demographic of the media content item.

2. The device of claim 1, wherein the first media content item is a first version of an audiovisual work and the second media content item is a second version of the audiovisual work.
3. The device of claim 2, wherein the first and second unique characteristics are the occurrence of various audio frequencies at particular points in time in the audiovisual work.
4. The device of claim 2, wherein the first version is a live version of the audiovisual work and the second version is a studio version of the audiovisual work.
5. The device of claim 2, wherein the first version is authorized for streaming to the user by a copyright owner of the audiovisual work and the second version is unauthorized for streaming to the user by the copyright owner of the audiovisual work.

6. The device of claim 1, wherein the first media content item is a first version of a book in digital format and the second media content item is a second version of the book in digital format.
7. The device of claim 1, wherein the first and second user data includes a geographic location of the user.
8. The device of claim 1, wherein the first user data includes the number of times the user requested to evaluate streaming the first media content item, and the second user data includes the number of times the user requested to evaluate streaming the second media content item.
9. The device of claim 1, wherein the processor is further configured to:
receive a license to stream the first media content item from a licensing system when the request is granted by the licensing system; and
prevent streaming of the first media content item when the request is declined by the licensing system.

10. The device of claim 1, wherein the processor is further configured to stream the first media content item based on a plurality of streaming parameters included in the license that is received from the licensing system.

11. The device of claim 1, wherein the processor is further configured to identify a first digital watermark included in a first media file of the first media content item, and identify a second digital watermark included in a second media file of the second media content item.

12. The device of claim 11, wherein the first digital watermark is metadata in the first media file, and the second digital watermark is metadata in the second media file.

13. The device of claim 1, wherein the processor is further configured to load a first digital media file for reproduction, wherein the digital media file include the first media content item.

14. The device of claim 1 further comprising a display, and the processor is further configured to generate a display query on the display asking the user whether the user would like to stream the first media content item.

15. The device of claim 1, wherein the processor is further configured to collect and transmit user identification data that confirms the user's identity.

16. The device of claim 1, wherein the processor is further configured to transmit the first and second media fingerprints for confirmation of the first and second media content items with a digital media catalog database.

17. The device of claim 1, wherein the processor is further configured to collect payment from the user to stream the first media content item.

18. The device of claim 1, wherein the processor is further configured to transmit the first and second statistics record in real time.

**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 13,989 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.

Respectfully submitted,

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

/Lestin Kenton/

Lestin L. Kenton (Reg. No. 72,314)
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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. 10,885,154** and all associated exhibits were served in their entirety on the following parties via FedEx Express® or Express Mail:

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Respectfully submitted,

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