

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROKU, INC.
Petitioner

v.

MEDIA CHAIN, LLC,
Patent Owner

Case IPR2022-00393
U.S. Patent 10,860,691

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 10,860,691**

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Alexandria, VA 22313-1450

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PETITIONER’S EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 10,860,691 to Estes (“’691 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	U.S. Patent Publication No. 2013/0166921 to Vijay <i>et al.</i> (“Vijay”)
1009	Prosecution History of U.S. Patent No. 9,715,581 (“’581 Prosecution History”)
1010	Prosecution History of U.S. Patent No. 9,898,590 (“’590 Prosecution History”)
1011	Prosecution History of U.S. Patent No. 10,489,560 (“’560 Prosecution History”)
1012	Prosecution History of U.S. Patent No. 10,515,191 (“’191 Prosecution History”)
1013	Prosecution History of U.S. Patent No. 10,860,691 (“’691 Prosecution History”)
1014	Prosecution History of U.S. Patent No. 10,885,154 (“’154 Prosecution History”)
1015	<i>Curriculum Vitae</i> of John Tinsman
1016	U.S. Patent No. 7,043,473 to Rassool <i>et al.</i> (“Rassool”)

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

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Exhibit No.	Description
1030	U.S. Patent No. 9,554,176 to Gharaat <i>et al.</i> (“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 <i>et al.</i> (“Handman”)
1033	U.S. Patent Publication No. 2006/0206478 to Glaser <i>et al.</i> (“Glaser”)
1034	U.S. Patent No. 7,081,579 to Alcade <i>et al.</i> (“Alcade”)
1035	Avery Li-Chun Wang, “An Industrial-Strength Audio Search Algorithm,” 4th International Conference on Music Information Retrieval, Baltimore, Maryland, USA, October 27-30, 2003.
1036	Bryan Jacobs, “How Shazam Works To Identify (Nearly) Every Song You Throw At It,” Gizmodo.com (September 24, 2010) https://gizmodo.com/how-shazam-works-to-identify-nearly-every-song-you-th-5647458
1037	European Patent Application Publication No. 1,558,032 to Widevine Technologies, Inc.
1038	U.S. Patent Publication No. 2013/0051772 to Ramaswamy <i>et al.</i> (“Ramaswamy”)
1039	U.S. Patent No. 5,223,924 to Strubbe <i>et al.</i> (“Strubbe924”)
1040	U.S. Patent Publication No. 2001/0056405 to Muyres <i>et al.</i> (“Muyres”)
1041	U.S. Patent No. 7,603,382 to Halt, Jr. (“Halt”)
1042	U.S. Patent No. 10,447,564 to Abraham <i>et al.</i> (“Abraham”)
1043	U.S. Patent No. 8,583,089 to Ramer <i>et al.</i> (“Ramer”)

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Exhibit No.	Description
1044	Laurie J. Flynn, “Like This? You’ll Hate That. (Not All Web Recommendations Are Welcome.),” NYTIMES.com (January 23, 2006) (https://www.nytimes.com/2006/01/23/technology/like-this-youll-hate-that-not-all-web-recommendations-are.html)
1045	U.S. Patent No. 8,375,131 To Rogers <i>et al.</i> (“Rogers”)
1046	U.S. Patent Publication No. 2012/0233701 to Kidron (“Kidron”)
1047	U.S. Patent No. 6,317,722 to Jacobi <i>et al.</i> (“Jacobi”)
1048	U.S. Patent No. 8,352,331 to Dunning <i>et al.</i> (“Dunning”)
1049	U.S. Patent Publication No. 2003/0086341 to Wells <i>et al.</i> (“Wells”)
1050	U.S. Patent No. 7,178,720 to Strubbe <i>et al.</i> (“Strubbe”)
1051	“Technological Protection Systems for Digitized Copyrighted Works: A Report to Congress,” United States Patent and Trademark Office, 2002
1052	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, <i>et al.</i> , “The Future of Commerce,” Harvard Business Review, January-February 2000 (https://hbr.org/2000/01/the-future-of-commerce)
1056	Benno Stein, <i>et al.</i> , “Near Similarity Search and Plagiarism Analysis,” 29 th Annual Conference of the German Classification Society (GfKI), Magdeburg, Germany, 2006

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Exhibit No.	Description
1057	Chow Kok Kent, <i>et al.</i> , “Features Based Text Similarity Detection,” Journal of Computing, Vol. 2, Issue 1, January 2010
1058	Benjamin Cohen, “How can publishers limit e-book piracy?”, Channel 4 News, October 18, 2009 (https://www.channel4.com/news/articles/arts_entertainment/books/how%2Bcan%2Bpublishers%2Blimit%2Bebook%2Bpiracy/3391502.html)
1059	John Timmer, “Publishers cut book sharing deal with Scribd,” Ars Technica, March 18, 2009 (https://arstechnica.com/information-technology/2009/03/publishers-cut-book-sharing-deal-with-scribd/)
1060	Eric A. Robinson, “Digital Rights Management, Fair Use, and Privacy: Problems for Copyright Enforcement through Technology,” University of St. Augustine, December 2009 (https://orcid.org/0000-0001-9554-8754)
1061	U.S. Patent Publication No. 2012/0020647 to Vogel (“Vogel”)
1062	Daniel A Keim, et al. “Literature Fingerprinting: A New Method for Visual Literary Analysis,” IEEE, 2007
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 (“Complaint”)
1065	Order on Motion to Transfer, <i>Media Chain LLC v. Roku, Inc.</i> , WDTX-1-21-cv-00027 (“Motion to Transfer Order”)
1066	Scheduling Order, <i>Media Chain LLC v. Roku, Inc.</i> , WDTX-1-21-cv-00027 (“Scheduling Order”)
1067	<i>Intentionally Left Blank</i>
1068	U.S. Patent No. 7,577,703 to Boucher 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

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Exhibit No.	Description
1070	Plaintiff's Response, <i>Media Chain LLC v. Roku, Inc.</i> , WDTX-1-21-cv-00027 ("Plaintiff's Response")
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	<i>Intentionally Left Blank</i>
1077	U.S. Patent No. 10,885,154 to Estes ("154 Patent")
1078	U.S. Patent Publication No. 2007/0150299 A1 to Flory <i>et al.</i> ("Flory")
1079	U.S. Patent No. 7,555,489 to Bell ("Bell")
1080	California Northern District Time to Milestones, Docket Navigator, accessed January 4, 2022

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Roku petitions for IPR of claims 1-23 of U.S. Patent No. 10,860,691.

I. INTRODUCTION

The '691 patent claims are directed to a system that identifies requested digital media content using “fingerprints,” and provides, to third-party retailers, statistics summarizing collected demographic data for users who accept and decline to stream content. EX1001, 8:27-37, 11:52-12:14.

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 '691 patent.

II. IDENTIFICATION OF UNPATENTABILITY GROUNDS

Ground	Prior Art	Basis	Claims
1	Brandstetter-Levy	35 U.S.C. § 103	1-4, 6-12, 14-17
2	Brandstetter-Levy-Vijay (EX1008)	§ 103	5, 13
3	Brandstetter-Levy-Rassool (EX1016)	§ 103	18-20
4	Brandstetter-Levy-Flory (EX1078)	§ 103	21-23
5	Peled-Pou	§ 103	1-4, 6-12, 15-17
6	Peled-Pou-Vijay	§ 103	5, 13
7	Peled-Pou-Brandstetter	§ 103	14
8	Peled-Pou-Rassool	§ 103	18-20
9	Peled-Pou-Flory	§ 103	21-23

The earliest alleged priority date of the '691 patent is November 4, 2011.¹

The references qualify as prior art as follows:

- 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.
- Vijay is prior art under § 102(e) because it was filed on May 31, 2011.
- Rassool is prior art under § 102(b) because it issued on May 9, 2006.
- Flory is prior art under § 102(b) because it was published on June 28, 2007.

III. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art (“POSA”) at the time the '691 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

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

media content protection, and statistical analysis of digital media consumption.

EX1002, ¶¶1-48.

IV. OVERVIEW OF THE '691 PATENT

The '691 is generally directed to (1) licensing and distributing digital media content, and (2) targeted marketing. However, these concepts were well-known.

EX1002, ¶¶49-77, 103-57.

A. Disclosure

1. Distributing Media Content Using Fingerprints

The '691 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.

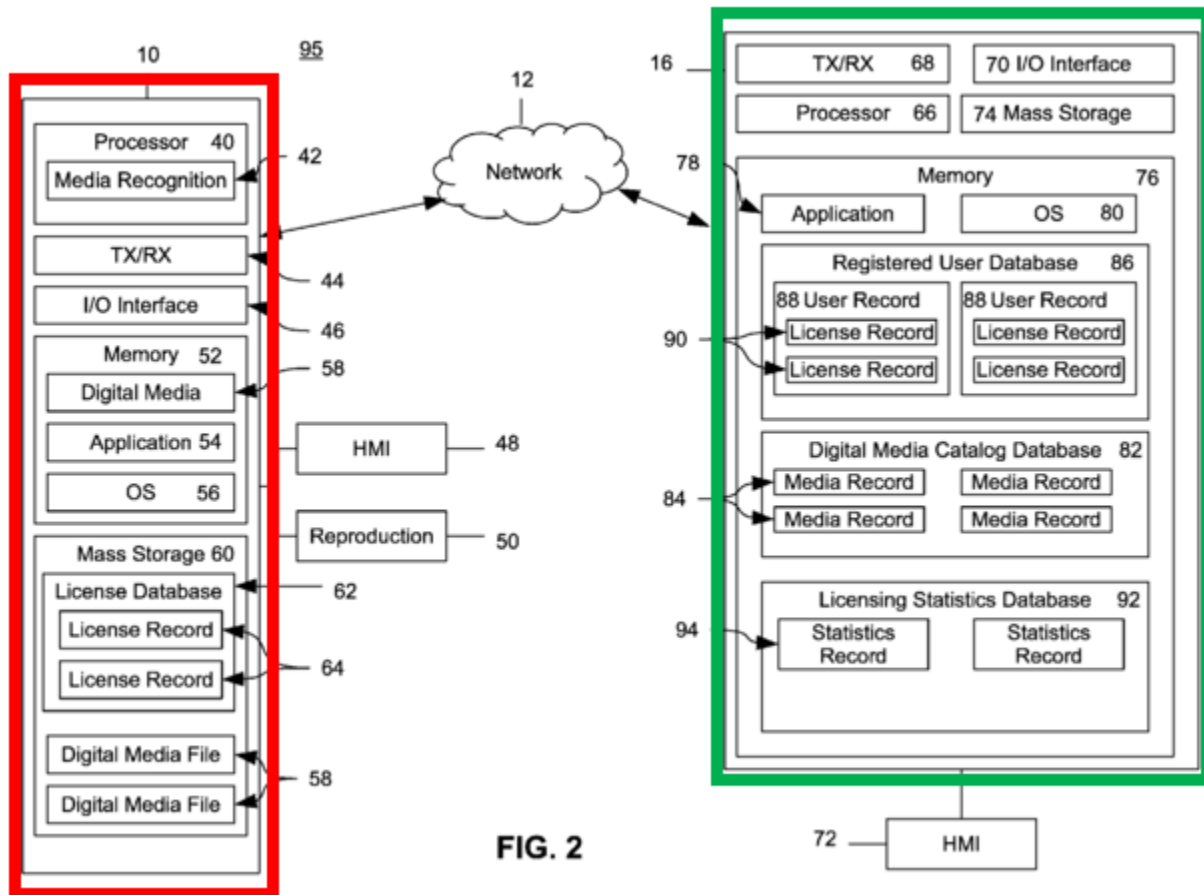
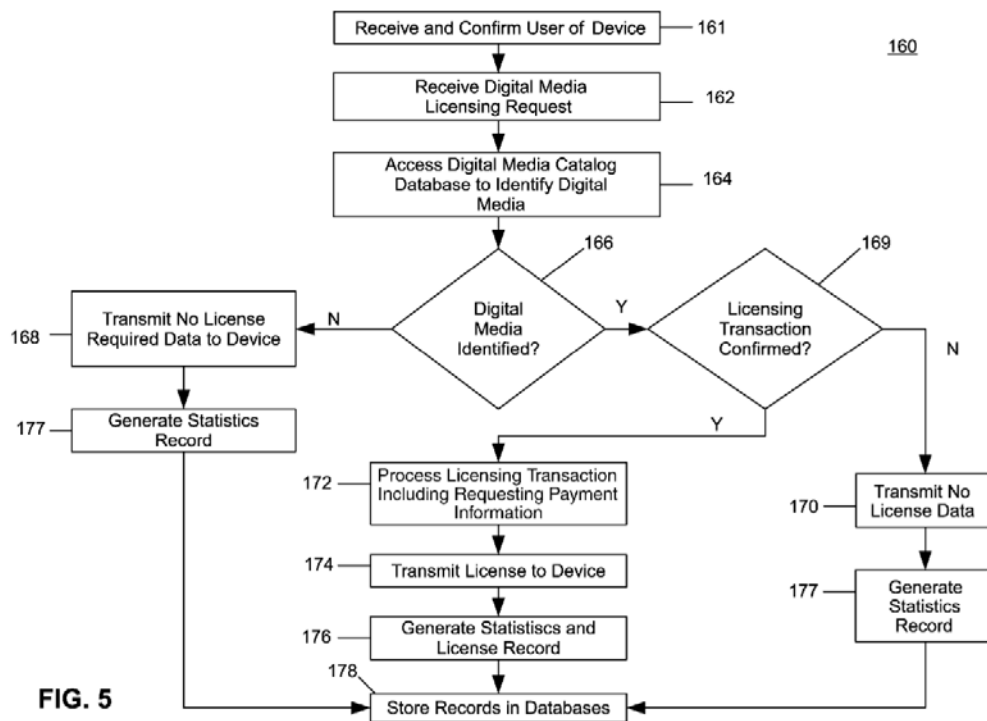
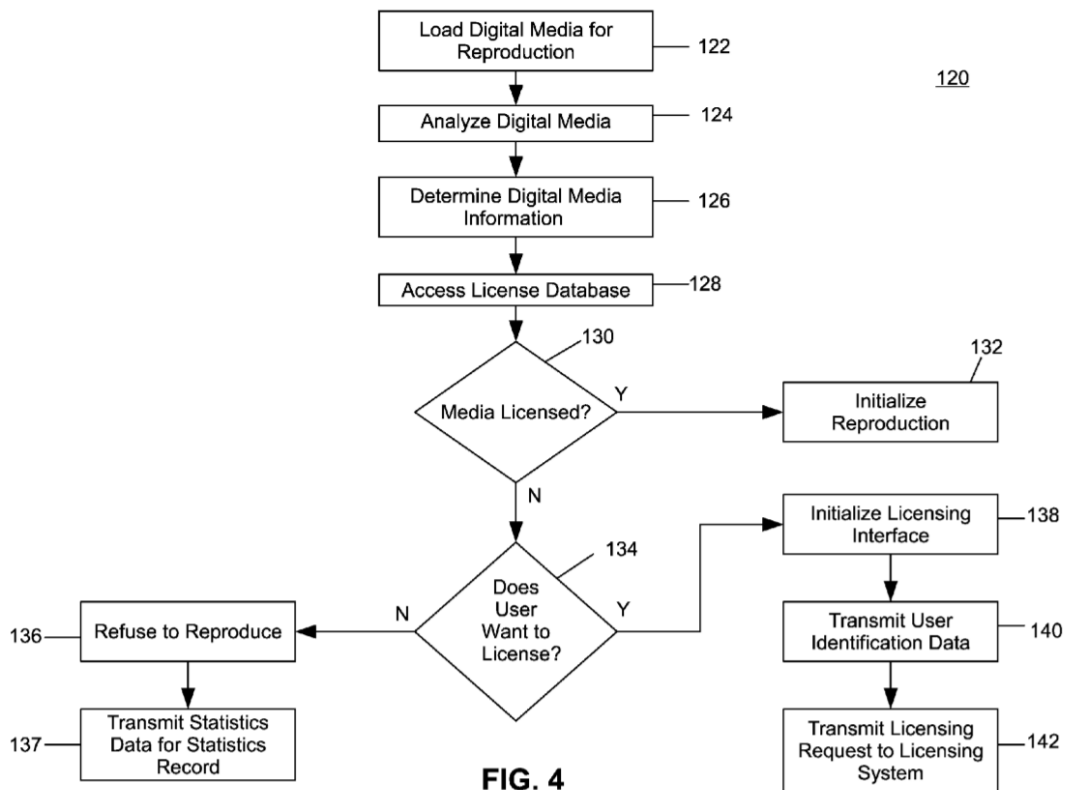


FIG. 2

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, 11:37-41; EX1002, ¶¶78-85. 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, 13:25-28. The content items are analyzed to determine “identifying characteristics” that are “inherently present.” *Id.*, 4:13-31, 6:57-67, 8:27-50, 9:3-10, 9:17-21. This may be a “fingerprint” or “digital watermarking.” *Id.*, 4:31-37, 13:25-28. 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.*, 4:26-31, 9:18-24; EX1002, ¶¶85-87.

A user may then request to evaluate streaming content, and if not licensed to do so, acquire a license. EX1001, 4:2-11, 4:31-52, 9:22-38, 9:64-11:1; EX1002, ¶88.

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, 5:30-38, 7:61-8:7, 9:49-57, 11:12-36, 11:61-12:25; EX1002, ¶¶89-91. Figure 7 depicts this process:

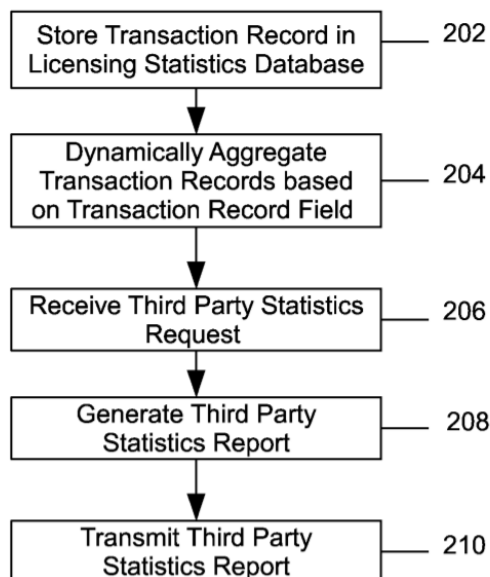


FIG. 7

EX1001, FIG. 7.

B. Prosecution History

During prosecution of the '691 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 ’691 patent issued based on the Examiner’s similar determination. EX1013, 131. The Examiner was unaware, however, that this feature is disclosed in Brandstetter and Peled as further explained below. EX1002, ¶¶101-02.

C. Claims

The ’691 patent contains twenty-three claims, four of which (claims 1, 7, 9, and 15) are independent. A Claim Appendix has been included with this Petition.

Claim 1 recites a computer-implemented method in which requested media content is identified based on fingerprints ([1A]-[1B]) and user demographic data is collected, for purposes of targeted marketing, when one user accepts to stream content and another declines to stream the same content ([1C]-[1I]). EX1002, ¶¶92-97.

Claim 1 does not explicitly require a single device or system to perform all of its steps. *Id.*, ¶93. Indeed, when Patent Owner (“PO”) intended to claim a single device, it did so expressly. EX1077, claim 1 (reciting a “multimedia hardware device” performing certain functions). Rather, the context of claim 1 suggests that at least some of its limitations would be practiced by the licensing system on a server, such as “receiving a ... request ... to evaluate streaming the media content item,” “aggregating ... user data into a ... statistics record,” “storing” the record in

² All emphasis added unless otherwise noted.

a database, and “analyzing” the records. EX1001, FIG. 5, 7:61-8:7, 10:54-11:2, 11:20-36; EX1002, ¶¶93.

Under any interpretation, however, the grounds of unpatentability presented below render claim 1 obvious when occurring at either a user device or a licensing system. EX1002, ¶¶94.

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 ¶¶98-100 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, ¶¶98-100. The ’691 patent likewise claims these concepts but refers specifically to streaming, a “media fingerprint,” and two users requesting the same media content item.

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., [1D]) “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. Further, PO’s interpretation is inconsistent with narrowing amendments made during prosecution. To obtain allowance, the applicant narrowed the claims to require extracting user data when the user declines a license, which the Examiner found was not disclosed in the prior art. 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.5, XIII.B.5. 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. *Id.*, ¶¶158-59.

VI. GROUND 1: CLAIMS 1-4, 6-12, AND 14-17 ARE OBVIOUS OVER BRANDSTETTER-LEVY.

A. Overview of Brandstetter

Brandstetter discloses a 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. *Id.*, ¶¶91, 109.

Brandstetter's platform licenses and distributes digital media content to its users.

Id., ¶¶77, 98, 120, 126, 173; EX1002, ¶¶104-08.

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, ¶¶109-16. 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, 142. 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, ¶¶130-41.

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 to:

- (1) provide an efficient mechanism for tracking purchased licenses, and
- (2) confirm adherence to license terms for downloaded media files. EX1002, ¶¶160-72.

First, the Brandstetter-Levy combination results 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. EX1004, FIGs. 26-29, ¶166.

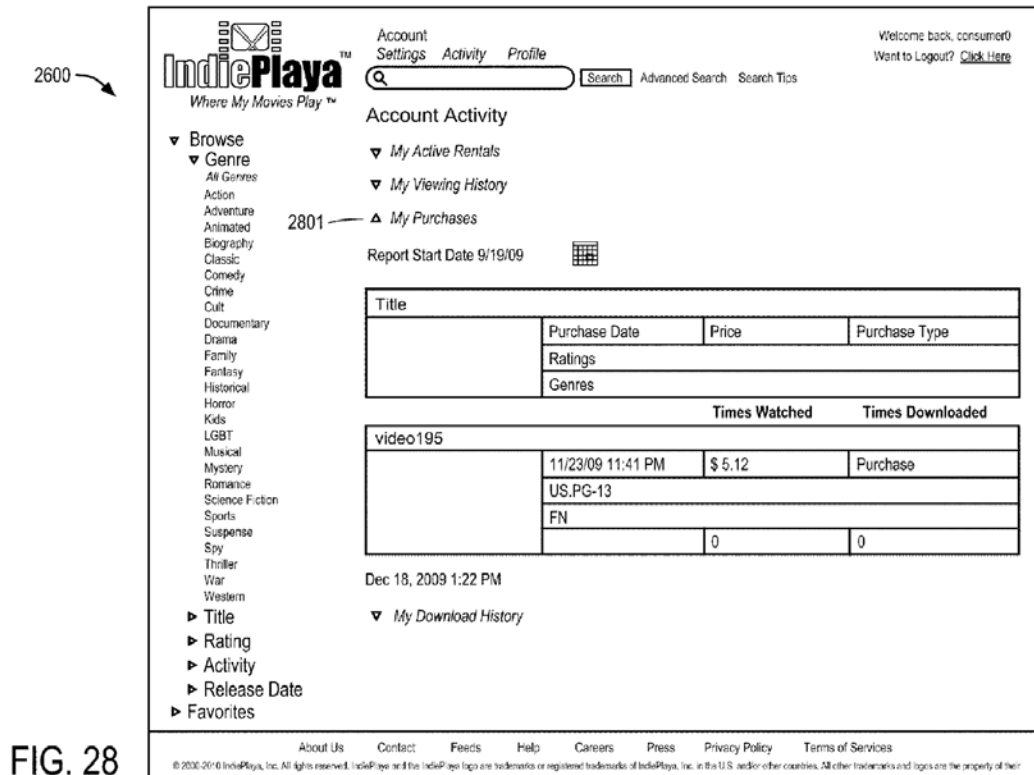


FIG. 28

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, ¶¶164-68. A common way to uniquely track purchased media content would be using a unique content identifier. EX1002, ¶168. 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, ¶168. A fingerprint is a compact, “reduce-bit representation

of content” and therefore enables fast and computationally efficient comparisons.

EX1006, ¶142; EX1002, ¶168. 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, ¶168.

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, ¶168.

Second, the Brandstetter-Levy combination aids in confirming adherence to license terms for downloaded media files. *Id.*, ¶¶169-70. 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.*, ¶169; 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, ¶¶169-70; 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, ¶¶170-72.

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, ¶173. A POSA would have implemented Levy's purchase and license tracking/fingerprinting techniques with Brandstetter to distribute licensed content. EX1005, ¶¶56-73, 76-79. The combined system would manage different rentals and/or purchases and control downloaded content. Section VI.C.1; EX1002, ¶173; 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, ¶174. 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.*, ¶¶174-75.

D. Brandstetter-Levy Discloses Claim 1.

1. [1P].

To the extent the preamble is limiting, Brandstetter provides a "platform ... by which a plurality of content providers can market and distribute media content

to users.” EX1004, ¶¶6-10. Brandstetter’s “client device 111” discloses the claimed “multimedia hardware device.” *Id.*, ¶¶91-92, 102-10, FIG. 1C; EX1002, ¶¶176-78.

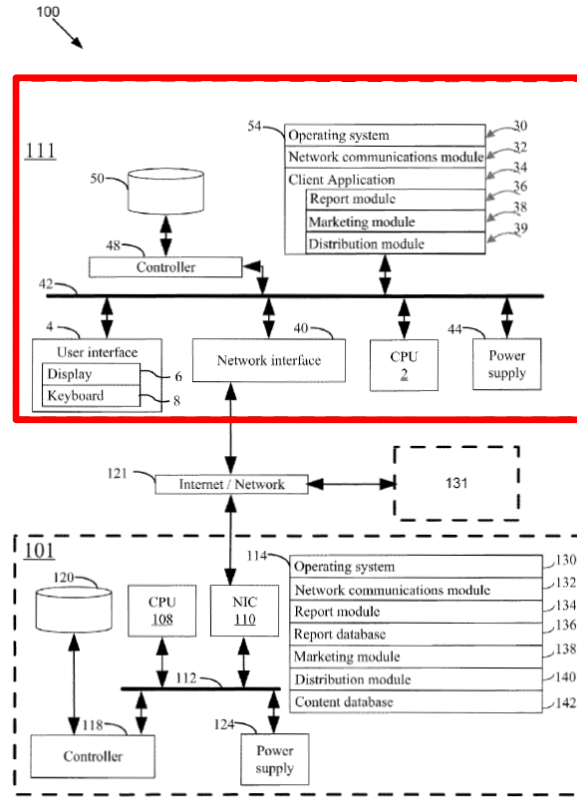


FIG. 1C

EX1004, FIG. 1C (annotated).

Server 101 distributes media content to the “user’s computer,” client device 111. EX1004, ¶¶69, 90-109. This distribution includes “streaming” a media content “item” included in a digital media file. EX1002, ¶¶179-81; EX1004, ¶¶7, 67, 69, 118, 167, 173, FIGs. 2, 16, 19, 30, 35-39. Brandstetter thus discloses the preamble.

Although the preamble recites a “multimedia hardware device,” it is directed more generally to a “computer implemented method for configuring” the device “to stream a media content item.” Thus, even to the extent the preamble is limiting, it merely requires that the performance of the steps recited in the body of the claim result in a device that is configured “to stream a media content item.” The preamble does not require all claim steps to be performed only on the multimedia hardware device. Section IV.C. Indeed, the context of claim 1 suggests that at least some of its limitations would be performed by the licensing system on a server. *Id.*; EX1002, ¶181.

Regardless, a POSA would have found it obvious that each of the claim steps could be performed either on Brandstetter’s server or its client devices. Brandstetter explains that “there may be little or no difference between the architecture of the serving devices and the client devices,” and that “other embodiments that do not make use of a client-server architecture are possible.” EX1004, ¶72; EX1002, ¶¶182-86.

2. [1A] “receiving a first request from a first user to evaluate streaming the media content item and a second request from a second user to evaluate streaming the media content item.”

Brandstetter’s platform receives requests from a “plurality” of users—i.e., at least two users—to evaluate streaming content when the users browse for content. EX1004, Abstract, ¶¶6, 10, 66, 69, 71, 75-81, 91, 98, 141-47, FIG. 48; EX1002,

¶¶187-88. Such requests may be made, for example, by “click[ing] on an advertisement” or using a “search” bar in one of Brandstetter’s interfaces. EX1004, ¶¶71, 87, 120-27; FIGs. 4, 25-36. Those requests are received by a “distribution module” 140 at Brandstetter’s server. *Id.*, ¶98; EX1002, ¶187.

A POSA would have understood that multiple users can request the same media content item, and that 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, ¶¶188-91. The act of clicking on an advertisement for particular content (i.e., requesting to stream that content) enables the user to evaluate streaming that content rather than actually streaming it. EX1002, ¶188.

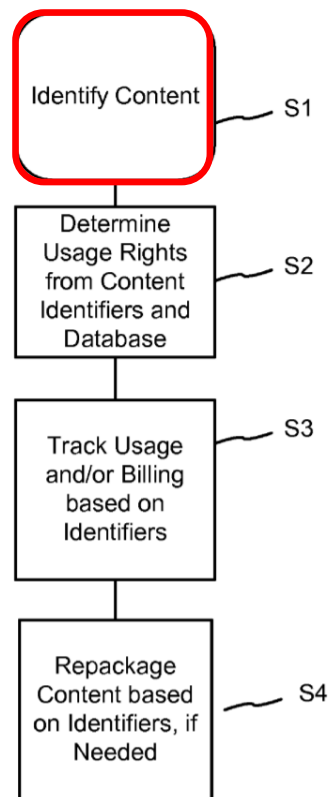
3. [1B] “identifying the media content item by determining a media fingerprint ...”

Brandstetter’s platform identifies requested media content items, generally, as there would be no way to provide a user with the requested item without first identifying that which the user has requested. EX1002, ¶¶192-94. 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 content that remain constant (e.g., or unchanging) in the platform,” including title, plot, genre,

ratings, credit). Brandstetter further explains that 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, videos, and images are “identified” before being rendered, EX1006, ¶¶4, 42, 69, 93; *see also id.*, FIGs. 17a-18, ¶¶108-09:

Fig. 1



EX1006, FIG. 1 (annotated).

This identification can be performed using “fingerprints,” which was the most common way to identify digital media content in the prior art. *Id.*, Abstract, ¶¶7, 12, 13, 42, 47-48, 54-58, 77, 80, 89, 108-09, 140-42, claims 19, 23, 26, 33, 39; EX1002, ¶¶195-96. Levy describes its fingerprints as comprising “**a hash, derived signature or reduce-bit representation of content**” that allows Levy’s system to “**uniquely identify**” media content. EX1006, ¶¶140, 142. This 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 the recorded creation of the media content item, and exclude information introduced to the media content item extraneous to the recorded creation. EX1002, ¶¶196-98.

Indeed, Levy uses the same language to describe its fingerprinting algorithm as the ’691 patent itself. *Compare* EX1001, 4:16-22, 9:6-13 (’691 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, ¶199.

To the extent the claimed “identifying” step is interpreted to occur at the user device, Levy discloses this. Levy’s media content “is identified before rendering,” without specifying where that step takes place. EX1006, ¶¶42, 152

(stating that Levy’s embodiments can be “interchang[ed] and substitut[ed]”). 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. Levy’s “Media Server includes a fingerprint reader” that “calculates or derives a fingerprint of content.” *Id.*, ¶140; EX1002, ¶¶200-02.

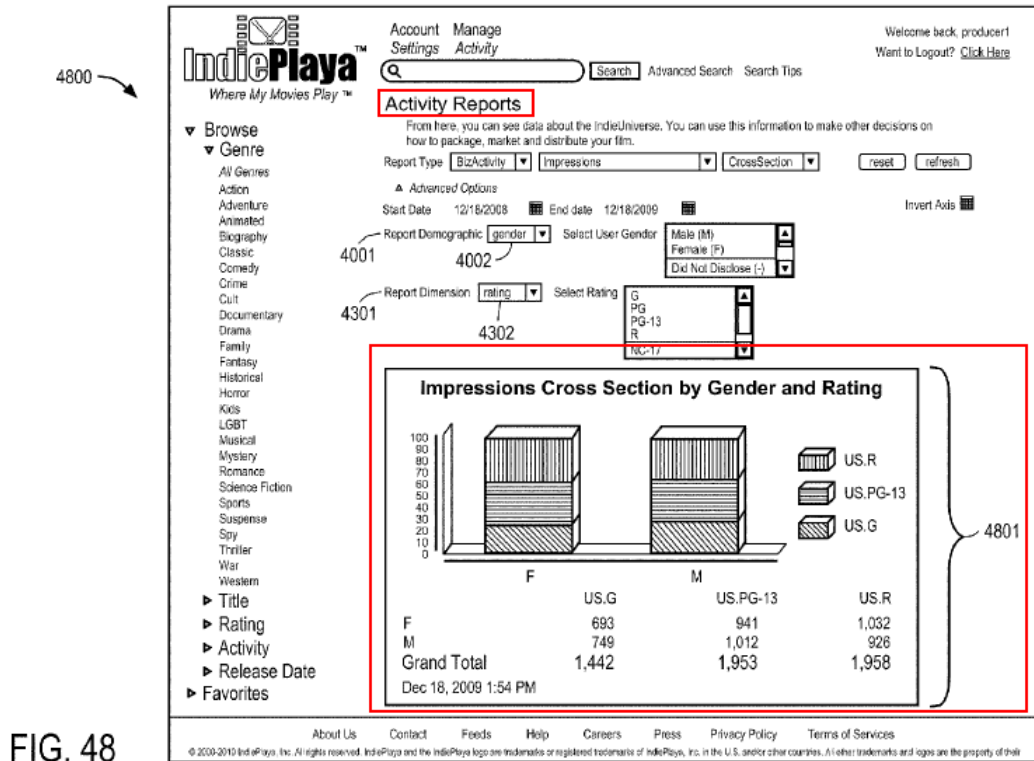
To the extent the claimed “identifying” step is interpreted to occur at a server remote from a user device, Levy likewise discloses this. For example, Levy’s “Media Server” (i.e., user device) may communicate a derived “Fingerprint Content ID” to a “Fingerprint Rights Registry to obtain corresponding Usage Rights.” EX1006, ¶140. A POSA would have understood and it would have been obvious that for the remote Rights Registry to store an association of Usage Rights to content fingerprints, a remote server would have needed to identify the content using a fingerprint. *Id.*, ¶¶10, 43, 90, 105, 110, 112, 140; EX1002, ¶¶203-04.

A POSA would have been motivated to implement Levy’s fingerprinting identification algorithm at either Brandstetter’s client devices or its server and had a reasonable expectation of success for all the reasons previously discussed. Section VI.C; EX1002, ¶¶202-05.

4. [1C] “extracting first user data specific to the first user when the first user accepts to stream the media content item.”

Brandstetter’s platform “collect[s] information about the users (e.g., their demographics) and user activity.” EX1004, ¶¶65, 83, 130; EX1002, ¶206. Such data includes “ages, geographical locations, ethnicities, [and] genders.” EX1004, ¶71. 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, ¶¶207-08

Brandstetter’s “report module 134” summarizes the user demographic data to generate “activity reports.” EX1004, ¶96. These reports reflect any and all user activity on the platform. *Id.*, ¶65. Brandstetter’s Figures 40-49 illustrate examples of such reports.



EX1004, FIG. 48 (annotated).

“FIGS. 40-49 show exemplary interfaces for interacting with content to generate and display reports.” *Id.*, ¶174. The reports may provide “graphic interpretations (e.g., scatter plot, pie chart, bar chart, etc.) of the selected content.” *Id.* For example, Figure 48 illustrates a “bar chart graphic interpretation 4801” of content reflective of “collect[ed] information about the users ... compiled into reports for use by content creators” (e.g., copyright owners). *Id.*, ¶¶65, 179; EX1002, ¶¶207-09.

5. [1D] “extracting second user data specific to the second user when the second user declines to stream the media content item;”

Brandstetter also extracts such 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, ¶¶210-11. Alternatively, a user may *explicitly* decline to stream by declining a particular offer provided by Brandstetter’s platform. For example, as shown in Figure 16, 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 certain 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, ¶¶211-15.

6. [1E] “aggregating 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.4-5. 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 record[s].” Brandstetter uses them to generate activity reports. *Id.*; Section VI.9; EX1002, ¶216.

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, a POSA would have understood that Brandstetter’s platform can aggregate data on a per-user basis such that each user’s data is aggregated into a different record. *Id.*, ¶¶128, 133; EX1002, ¶¶217-19.

7. [1F]: “storing ... the first[/second] statistics record ... so that the summarized ... user data ... is accessible to a third party online retailer.”

Brandstetter stores user activity and demographic data to build statistics and reports for content providers. Sections VI.D.4-6. Brandstetter stores these statistics for subsequent retrieval when generating activity reports. EX1004, ¶¶74, 85, 93, 172, FIG. 1C; EX1002, ¶¶220-21. 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, ¶¶93, 96.

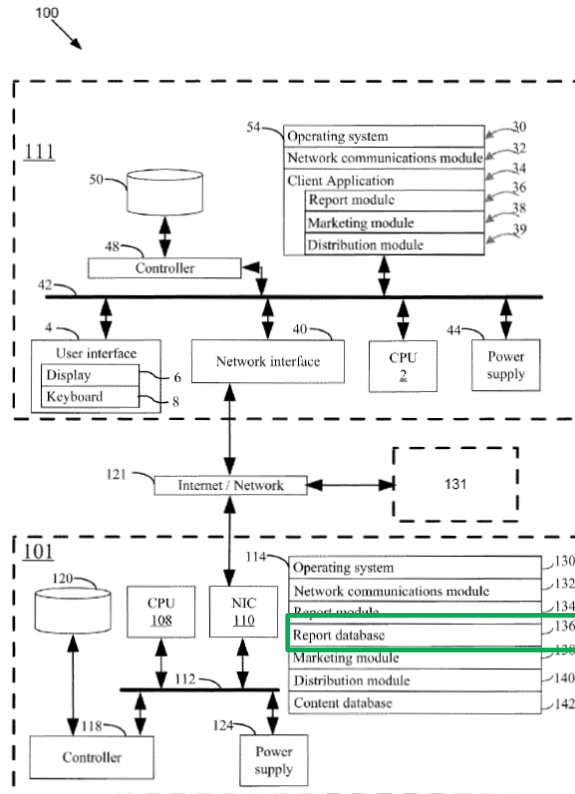


FIG. 1C

EX1004, FIG. 1C (annotated).

Brandstetter's statistics are used to generate activity reports that summarize the user data. *Id.*, ¶¶65, 93; Section VI.D.9. Those reports, in turn, can be provided to **any** user who requests them, which can include a third-party online retailer. *Id.*, ¶93. Brandstetter states that its reports “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.” *Id.*, ¶¶8-9, 159. Brandstetter states that a content provider can comprise 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. *Id.*, ¶¶10, 91-92, FIG. 1C; EX1002, ¶¶221-27.

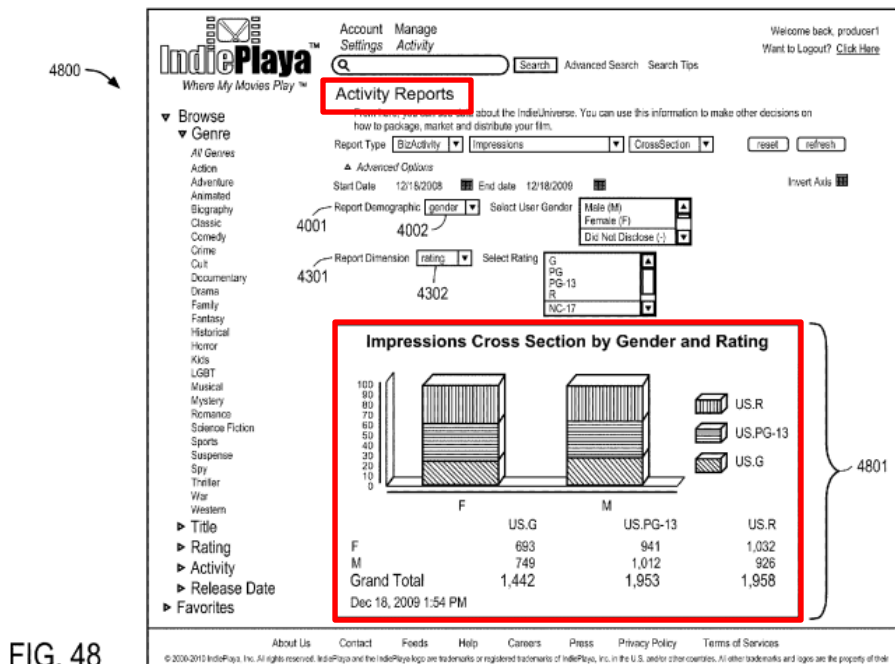
8. [1G] “retrieving the first[/second] statistics record ... with the identity of the media content item determined by the media fingerprint.”

As explained above, Brandstetter’s intelligence and/or user statistics (i.e., the claimed “statistics records”) are stored in a database. Section VI.D.7. Brandstetter’s reports containing the statistics can be “*retrieved* from persistent storage and provided to” the requesting party. EX1004, ¶74; EX1002, ¶228.

Further, as explained above, Levy discloses identifying a requested media content item based on the item’s fingerprint. Section VI.D.3. Given that Levy’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 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.3; EX1002, ¶¶229-30.

9. [1H]: “analyzing the retrieved first[/second] statistics record ... to determine a target demographic of the media content item ...”

Brandstetter’s process leading to the generation of “activity reports” discloses the analysis of a plurality of statistics records. Sections VI.D.6-8; EX1002, ¶231. 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, 66, 73-79, 83, 86, 97, 115, 132-33. Brandstetter analyzes the indexed site activity to generate statistics for particular users and to generate reports. *Id.*, ¶¶6, 8-10, 130, 132-33, 172; EX1002, ¶¶232-34. The reports contain “historical information regarding purchases ... *by one or more demographic groups.*” EX1004, ¶6, FIG. 48.



EX1004, FIG. 48.

Figure 48 shows an example report that provides gender information, but Brandstetter's reports can also categorize other user demographic and interaction data. *Id.*, ¶¶173-74, 179; EX1002, ¶¶235-37. Brandstetter describes a demographic of individuals who accept and decline to stream content. EX1004, ¶130. A POSA would have understood that Brandstetter's reports therefore analyze user data for both categories of users. *Id.*, ¶81; EX1002, ¶¶238-40.

10. [1I] “providing the third party online retailer the target demographic to market the media content item ...”

Brandstetter states that its 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.*, ¶96. In either scenario, the report is provided to the requesting party, including a third-party online retailer. Section VI.D.7; EX1002, ¶¶241-42.

The reports contain target demographic information 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 (reports allow content creators to “develop[] and execut[e] one or more strategies for marketing and distributing

their own content” to particular demographics), 75 (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; EX1002, ¶¶243-47.

E. Claim 7.

Claim 7 is similar to claim 1 in most material respects, but its preamble focuses on a “media content streaming and verification system,” which is not patentably distinct. Again, as described above, the claim steps need not occur at any particular device. Sections IV.C, VI.D.1. Brandstetter-Levy renders claim 7 obvious for the reasons presented in claim 1, and as further explained below.

EX1002, ¶¶248-53.

[7P]	Section VI.D.1.
[7A]	Section VI.D.2.
[7B]	Section VI.D.3.
[7C]	Section VI.D.4.
[7D]	Section VI.D.5.
[7E]	Section VI.D.6.
[7F]	Section VI.D.7.
[7G]	Section VI.D.8.
[7H]	Sections VI.D.9-10.

Claim 7 recites a “media content streaming and verification system” and user “external devices,” and requires the stored data be accessible “to a party other than the first and second user.” Regarding the “media content streaming and verification system” in [7P], a POSA would have understood that Brandstetter’s central server 101 is such a system. EX1004, ¶¶72, 91-92, 98; EX1002, ¶249.

Regarding the “external devices,” Brandstetter’s media content items are distributed to “hundreds of thousands” of user “client devices” 111, each of which may comprise a “personal computer (e.g., desktop or laptop computer) or any form of mobile computing device (e.g., an iPhone, BlackBerry, and the like).” EX1004, ¶¶69, 91, 101, 109. Brandstetter’s client devices constitutes the claimed “external devices.” Section VI.D.1; EX1002, ¶250.

Finally, regarding “a party other than the first and second user” in [7F] and [7H], as explained above, Brandstetter discloses that **any** party—including a third-party content provider and retailer—can access Brandstetter’s intelligence and/or statistics (i.e., the claimed “statistics record[s]”). Sections VI.D.7, VI.D.9-10; EX1002, ¶¶251-52.

F. Claim 9.

Claim 9 recites a “system” that performs substantially the same method recited in claim 1, which is not patentably distinct. Again, as described above, the claim steps need not occur at any particular device. Section IV.C, VI.D.1.

Brandstetter-Levy thus renders claim 9 obvious for the reasons presented in claim 1 and as further explained below. EX1002, ¶¶254-57.

[9P]	Section VI.D.1.
[9A.1]	See below.
[9A.2]	See below.
[9B]	Section VI.D.2.
[9C]	Section VI.D.3.
[9D]	Section VI.D.4.

[9E]	Section VI.D.5.
[9F]	Section VI.D.6.
[9G]	Section VI.D.7.
[9H]	Section VI.D.8.
[9I]	Sections VI.D.9-VI.D.10.

Claim 9 recites a “processor” and “memory.” Regarding the “processor” in [9A.1], Brandstetter’s central server “will typically have one or more processing units (CPUs) 10.” EX1004, ¶92. Likewise, Brandstetter’s client device 111 contains “one or more processing units (CPUs).” *Id.*, ¶¶102-03. Both sets of processors may be “general [or] special purpose microprocessors, and any one or more processors of any kind of digital computer.” *Id.*, ¶183; EX1002, ¶255.

Regarding the “memory” in [9A.2], Brandstetter’s server contains “a memory 114” that stores the operating system and software required to carry out Brandstetter’s server-side tasks. EX1004, ¶¶92-99. 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. *Id.*, ¶105; EX1002, ¶256.

G. Claim 15.

Claim 15 is similar to claim 1 in most material respects except that it involves a single user requesting to stream two different media content items, which is not patentably distinct. Again, as described above, the claim steps need not occur at any particular device. Section IV.C, VI.D.1. Brandstetter-Levy thus

renders claim 15 obvious for the reasons presented in claim 1 and as further explained below. EX1002, ¶¶258-65.

[15P]	Section VI.D.1.
[15A]	Section VI.D.2.
[15B]	Section VI.D.3.
[15C]	Section VI.D.3.
[15D]	Section VI.D.4.
[15E]	Section VI.D.5.
[15F]	Section VI.D.6.
[15G]	Section VI.D.7.
[15H]	Section VI.D.8.
[15I]	Section VI.D.9.
[15J]	Section VI.D.10.

Claim 15 recites a multimedia hardware device configured to stream a “plurality of media content items” and requires the system to identify and analyze data from one user and two different media content items. Regarding streaming a “plurality of media content items” in [15P], Brandstetter’s “users can interface with the platform so as to view information about ***different available items of media content.***” EX1004, ¶87. Brandstetter elsewhere states that its server “receives user requests for distribution of ***items of media content***” and distributes “such items” to users. *Id.*, ¶98. And a POSA would have understood that a single user can request to stream multiple media content items rather than just a single item, as required in [15A]. Section VI.D.2; EX1004 ¶¶120-26, FIGs. 26-29; EX1002, ¶¶259-60.

Likewise, regarding the use of multiple fingerprints in [15C], a POSA would have understood that Levy's fingerprints can identify multiple media content items rather than just a single item. Levy describes its fingerprinting algorithm in the context of media content distribution, generally, and states that the algorithm can be used to distinguish between different "versions of songs" requested by users. EX1006, ¶142. A POSA would have been motivated to implement Levy's fingerprinting techniques in either Brandstetter's consumer devices or its server and had a reasonable expectation of success for the reasons discussed above. Sections VI.C, VI.D.3; EX1002, ¶261.

Regarding a single user's data being aggregated into separate records in [15F], a POSA would have found it obvious to generate different sets of intelligence and statistics for each media content item a user requests. EX1002, ¶262. Likewise, regarding [15I] and [15J], it would have been obvious to use Brandstetter's aggregated data to determine a single target demographic or multiple demographics for two separate media content items rather than for just a single item. Brandstetter explains that a single demographic or multiple demographics for media content items may be targeted, and that those demographics may overlap. EX1004, ¶¶78-79, 81. From this disclosure, a POSA would have understood that Brandstetter's platform statistics may be analyzed to determine a target demographic based on the data of users who accept and decline

to stream content. Sections VI.D.9-VI.D.10; EX1002, ¶¶263-64.

H. Claims 2 and 10 (“receiving a license” and “preventing reproduction ... when the first and second requests are declined by the licensing system”).

Brandstetter-Levy discloses receiving a license when a user’s request is granted. EX1004, ¶¶87, 99, 166, FIGs. 26, 28. When a user purchases a license, the user account receives a license, which is tracked by Brandstetter’s platform. *Id.*; EX1002, ¶¶266-267. Brandstetter also prevents reproduction when the request is declined. EX1004, ¶¶4-5; EX1002, ¶268.

Levy likewise discloses its “Media Server” receiving a license after a purchase has been made. EX1006, ¶¶97-98, 110, 112. Levy’s Media Server receives “DRM-packaged” content that is packaged with corresponding Usage Rights. *Id.*, ¶¶88, 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, ¶269. Levy also discloses preventing reproduction of media content when the licensing request is declined—the “Client Player Application preferably prohibits access.” EX1006, ¶110; EX1002, ¶¶270-73. A POSA would have been motivated to use this feature of Levy in Brandstetter’s platform to prevent contravention of Brandstetter’s licenses and had a reasonable expectation of success. Section VI.C; EX1002, ¶¶273-75; EX1004, ¶¶2-5.

I. Claims 3 and 11 (“plurality of [streaming/reproduction] parameters”).

“Streaming” and “reproduction parameters” refer to the terms of a license.

EX1002, ¶¶276-77. 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 reproduction parameters depending on the terms of the license obtained by the consumer. EX1002, ¶¶278-80.

Levy’s “copy control information (CCI)” bits also disclose streaming/reproduction parameters because they specify copy restrictions for streamed or copied media. EX1006, ¶¶37, 86, 122-23; EX1002, ¶¶281-82.

J. Claims 4 and 12 (“stor[ing] in a license database the first[/second] user data ... that is accessible to the third party online media retailer”).

Claims 4 and 12 refer to allowing a “third party online media retailer” to access the stored user data. Brandstetter explains that user statistics and data—which include age, geographical location, gender, and ethnicity—are stored in a “report database” 136 on the server. EX1004, FIG. 1C, ¶¶65, 93, 96, 100, 131; Section VI.D.7. Brandstetter recognizes that other storage may also be possible, including storage on client devices. EX1004, ¶85. Brandstetter expressly discloses

that its memory 114 stores information relating to licenses. *Id.*, ¶93. Accordingly, it would have been obvious that Brandstetter's memory 114 is a license database. *Id.* Moreover, Brandstetter also describes that such user activity may include user credentials and digital rights status. *Id.*, ¶71; EX1002, ¶¶283-87.

Further, a POSA would have understood that multiple users would use Brandstetter's system, and thus Brandstetter's database stores user data associated with multiple users. Section VI.D.7; EX1002, ¶288. As described above, the stored user data is accessible to a third party, including third-party online media retailers that have been selected by the copyright owner to distribute the media-content item. Section VI.D.7; EX1002, ¶¶289-90.

K. Claims 6 and 16 (“geographic location”).

Brandstetter discloses tracking geographic location information as part of the stored demographic user data. Sections VI.D.4; EX1004, ¶¶71, 142-43, 174, FIG. 40. Figure 40 depicts an example of sorting the user data based on geographic location. EX1002, ¶¶291-94.

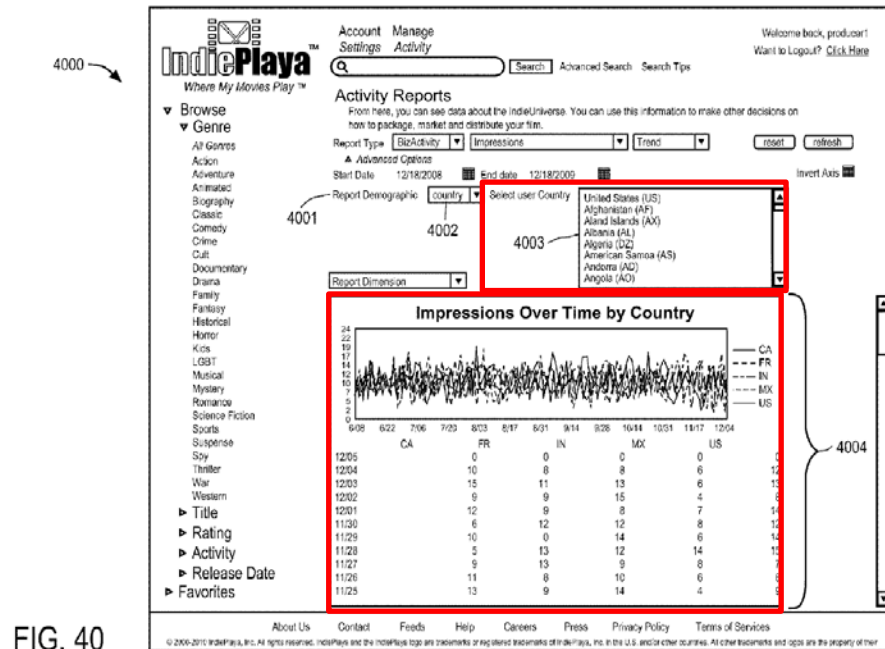


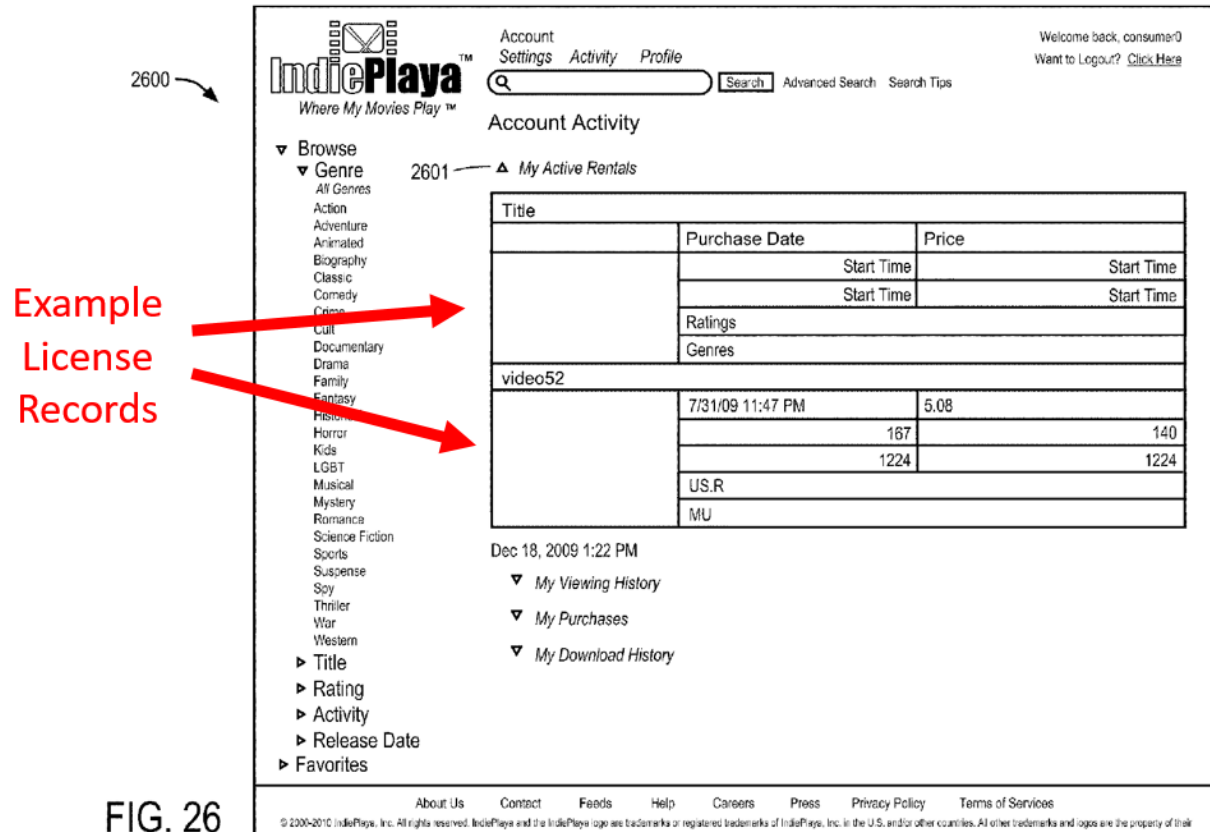
FIG. 40

EX1004, FIG. 40.

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

Brandstetter-Levy discloses storing license information in a registered user database and granting licenses to user devices attempting to reproduce content. EX1002, ¶¶295-96. Brandstetter generates a license record and stores license records with user profiles in memory 114 and/or 120. EX1004, ¶¶92, 98-100, 166, FIG. 25; EX1002, ¶¶297-98. Users may then view their purchased licenses. EX1004, ¶166, FIGs. 26, 28.

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EX1004, FIG. 26 (annotated).

Brandstetter also registers users as seen from Figure 25, which depicts an interface for creating/editing a profile with a user name and password. *Id.*, ¶198; EX1002, ¶299.

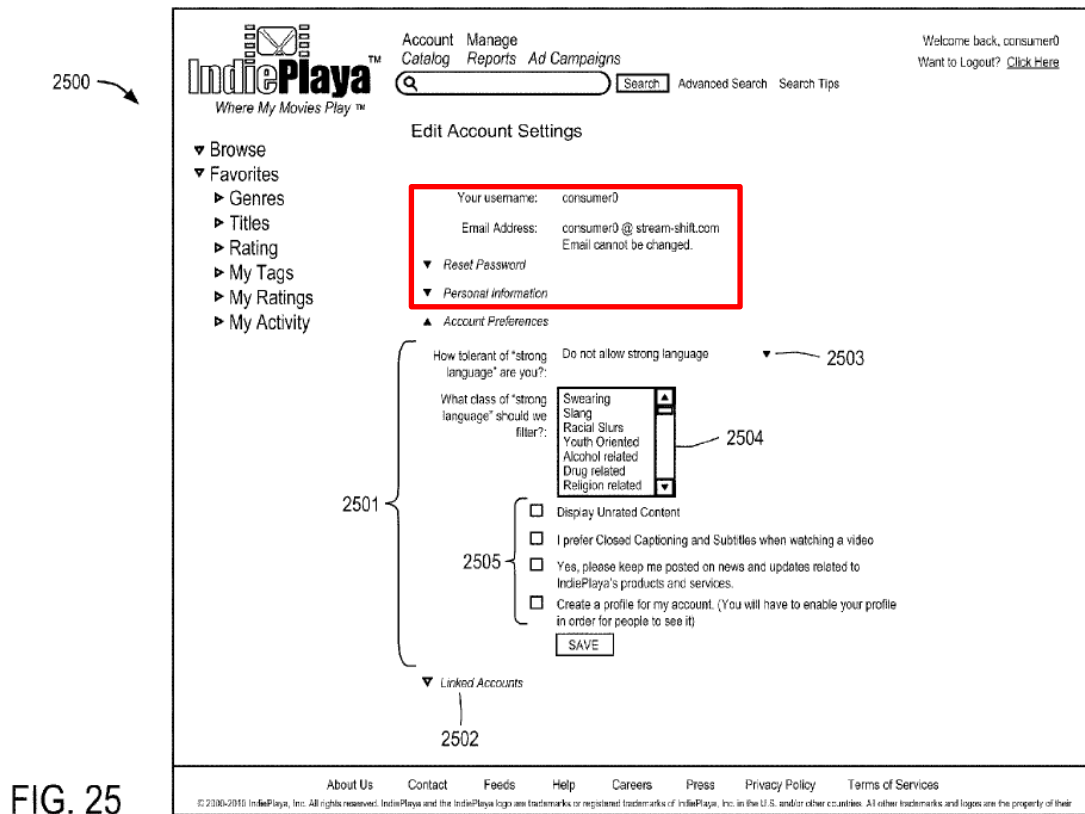


FIG. 25

EX1004, FIG. 25.

Levy also updates a registered user database when a user purchases a license via an online content store. EX1006, ¶¶52, 101. “The Media Server/User will typically maintain an account with the online store” *Id.*, ¶¶112, 114; EX1002, ¶¶300-01. Levy also stores purchased license information by updating a “DRM Rights Registry.” EX1006, ¶101; EX1002, ¶¶300-03.

M. Claim 14 (user data includes “quantity of times” and “additional media content items” previously accessed).

Brandstetter discloses identifying additional media content items that a user has previously accessed. EX1002, ¶¶304-05; 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; EX1002, ¶306.

Brandstetter also tracks a quantity of times that the user has previously accessed the media content item. EX1004, ¶¶147, 173. For example, this is tracked when enforcing a “play n-number of times licensing package.” *Id.*; EX1002, ¶¶307-08.

N. Claim 17 (first and second versions of audiovisual works).

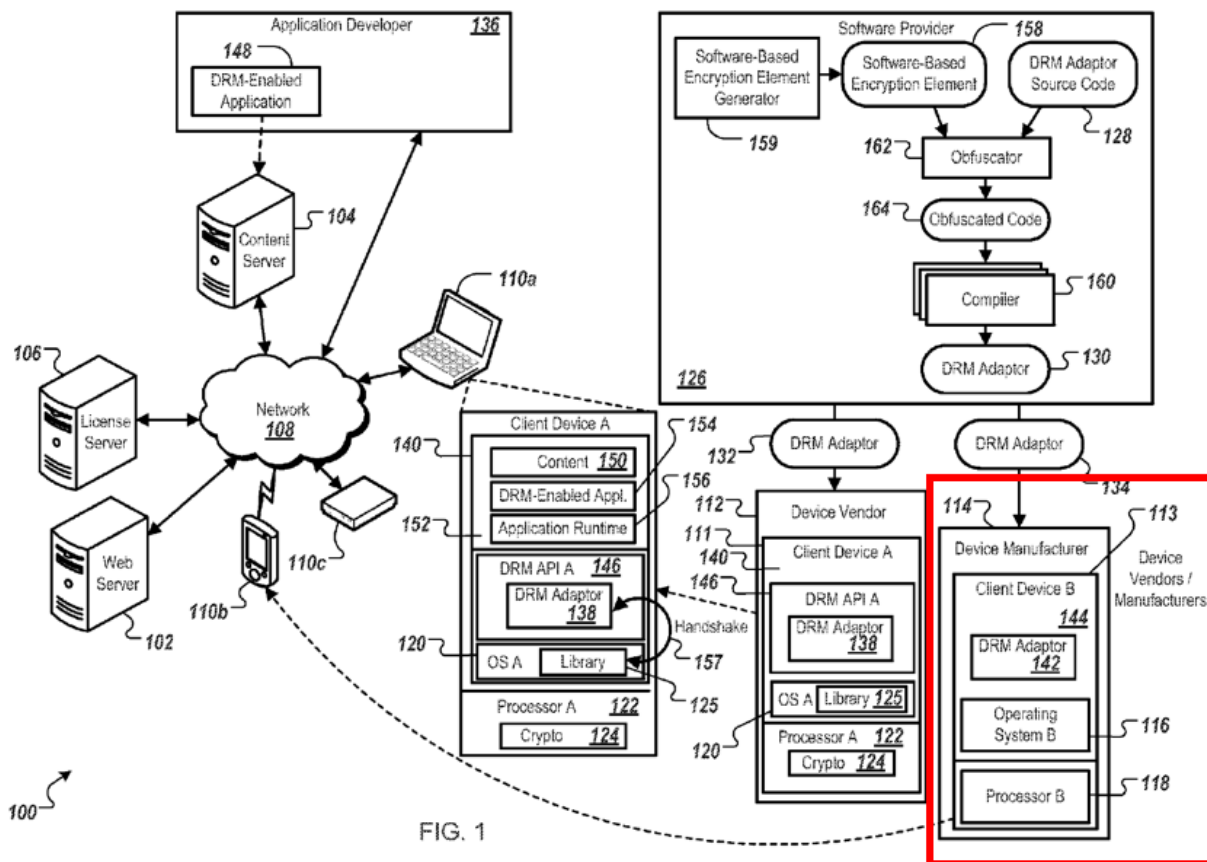
Brandstetter’s platform allows users to request and stream different types of digital media content, including “***audiovisual work[s]***” such as movies and videos. EX1004, ¶¶7, 69, 71, 118, 120, 123, 141, 152, 164, 173, 176-177; Section VI.D.1; EX1002, ¶¶309-10.

Brandstetter expressly 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.” EX1004, ¶126; EX1002, ¶¶311-12.

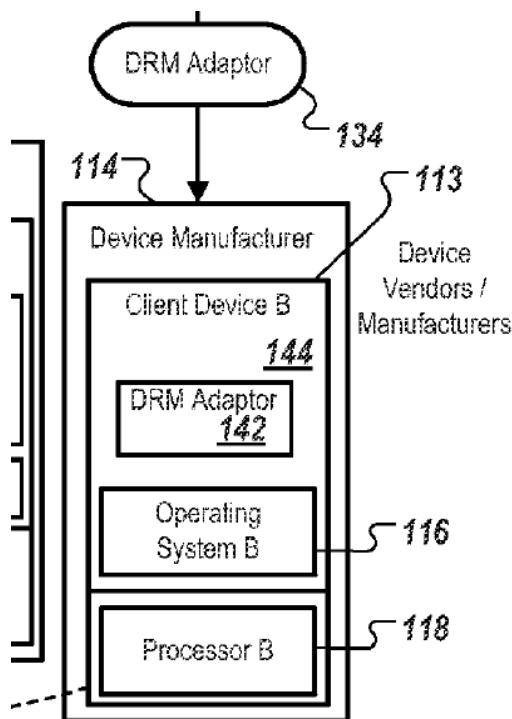
VII. GROUND 2: CLAIMS 5 AND 13 ARE OBVIOUS OVER BRANDSTETTER-LEVY-VIJAY.

Dependent claims 5 and 13 require storing user data such that it is “accessible to a hardware device manufacturer.” EX1001, 15:63-16:4, 17:58-65. Vijay discloses this feature.

Vijay discloses protecting electronic content using a “digital rights management (‘DRM’) system.” EX1008, ¶¶2-3.



EX1008, FIG. 1 (annotated).



EX1008, FIG. 1 (excerpted).

Device manufacturer 114 (Fig. 1 above) provides client devices 110 with DRM protection. EX1008, ¶¶22, 25, 27. “[D]evice manufacturer 114 may develop both an operating system 116 and a hardware processor 118 for the client device 113” to provide “hardware-based encryption.” *Id.*, ¶¶22, 23, 27, 45-46. To achieve this feature, device manufacturer 114 provides client devices 110 with a “DRM adaptor.” *Id.*, ¶¶22, 25, 27. Vijay thus discloses storing user data such that it is accessible to a “hardware device manufacturer.” EX1002, ¶¶149-51, 313-17. EX1008, ¶¶23, 27, 45-46. Brandstetter, in turn, provides user data to any party requesting the report. Section VI.D.7; EX1002, ¶318. Brandstetter-Levy-Vijay thus disclose providing user data to a “hardware device manufacturer.” And, as

described above, Brandstetter-Levy disclose storing user data in a “license database.” Section VI.J; EX1002, ¶320.

A POSA would have found it obvious to allow a DRM device manufacturer to access encryption-related information to provide additional “secure, dynamic device profiling” prior to decrypting content for reproduction and had a reasonable expectation of success. EX1008, ¶¶29, 34, 39, 56, 60, 73-76; EX1002, ¶¶319-20. For example, Brandstetter-Levy-Vijay would use a consumer’s geographic location information to confirm an expected user device prior to decrypting content for reproduction. Section VI.D.4; EX1002, ¶¶319-20. A POSA would have been motivated to combine Vijay with Brandstetter and Levy to provide this additional security and had a reasonable expectation of success. EX1002, ¶¶319-21.

VIII. GROUND 3: CLAIMS 18-20 ARE OBVIOUS OVER BRANDSTETTER-LEVY-RASSOOL.

Dependent claims 18-20 require the requested media content item to be a song, and the unique characteristic inherently present in the media content item to be “selected from the group consisting of lyrics included in the song, notes played in the song, and a sampled sound wave included in the song.” EX1001, 18:60-19:7. As explained above, Levy discloses an algorithm for identifying digital media content, including audiovisual works, using digital fingerprints. Section VI.D.3. 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; EX1002, ¶¶322-23.

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, 22:61-62. For 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. Rassool makes clear that its algorithm can be applied to “only a portion of an audio file” rather than to the entire file. *Id.*, 24:4-11; EX1002, ¶¶152-54.

Accordingly, the frequencies and melodies used in Rassool’s fingerprinting algorithm comprise unique characteristics of the song. Further, those characteristics are based on both notes played in the song and a sampled sound wave included in the song. EX1002, ¶¶324-26. 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, and had a reasonable expectation of success. Section VI.D.3; EX1002, ¶327. Indeed, 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’s 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.” *Id.*, 23:2-5. Thus, a POSA would have understood that Rassool’s fingerprinting algorithm would facilitate Brandstetter’s goal of monetizing digital media content. EX1002, ¶¶327-28.

IX. GROUND 4: CLAIMS 21-23 ARE OBVIOUS OVER BRANDSTETTER-LEVY-FLORY.

Dependent claims 21-23 require the media content item to be a “book in digital format” and the unique characteristics to be “a preselected number of words in the book.” EX1001, 19:8-19. Brandstetter-Levy-Flory discloses these limitations.

Brandstetter’s platform distributes any type of multimedia content, including “literary works (e.g., ‘**digital books**’)” and “**e-books**.” EX1004, ¶¶69, 118, claims 3, 46; EX1002, ¶¶329-30. Further, Flory discloses fingerprints (referred to in Flory as “thumbprints”) that “unique[ly]” identify “digital” documents such as books “based on the contents of the document.” EX1078, ¶660, claim 1. Flory explains that the fingerprint is a “unique digital string generated based on content characters and layout (**number of words**, characters, spaces, date, etc).” *Id.* Thus, documents containing different content will have different thumbprints, and a comparison of

thumbprints allows one to distinguish between different versions of a document.

Id. ¶¶660-62; EX1002, ¶¶155-57, 331. A POSA would have understood and it would have been obvious that the number of words used by Flory’s fingerprinting algorithm is preselected. Indeed, it was well known in the prior art that fingerprinting algorithms for digital text—including books—were based on blocks of text containing “a fixed number of words” preselected—i.e., “chosen by the user.” EX1062, 117; EX1002, ¶¶332-35. Such fingerprinting techniques can be used to “discriminat[e] the texts of different authors.” EX1062, 118-119 (explaining that fingerprint can “reveal that the structure of ... two books is totally different”); EX1079 (describing breaking digital text into chunks containing a predefined number of words).

A POSA would have been motivated to use Flory’s fingerprinting technique in combination with Brandstetter and Levy and had a reasonable expectation of success. Levy does not restrict the type of fingerprinting algorithms that can be used and refers specifically to using watermarks/fingerprints to identify “**electronic documents**.” EX1006, ¶¶4, 7. Flory describes one such fingerprinting technique for digital books and other such texts. EX1002, ¶¶336-39. Flory’s technique is advantageous because it allows computer-based systems to efficiently distinguish between multiple versions of text and to “manage, control, [and] track” such text in a networked environment, which is precisely what Levy’s fingerprinting technique

does. EX1078, ¶¶660-62, claim 1; Section VI.D.3. Thus, given the discriminating power of Flory’s technique, a POSA would have been motivated to use it as part of Levy’s algorithm for identifying digital files and had a reasonable expectation of success. Such techniques, moreover, have long been used to protect against piracy of e-books and would have been useful for that purpose in Brandstetter’s platform. EX1002, ¶338.

X. GROUND 5: CLAIMS 1-4, 6-12, AND 15-17 ARE OBVIOUS OVER PELED-POU.

A. Overview of Peled

Peled discloses a system for marketing and distributing digital content. EX1003, Abstract, ¶¶1-2, 3, 7, 155; EX1002, ¶¶117-25. Peled also “provides the ability to study online requests for content”—and most importantly, “***online requests that do not result in a sale.***” EX1003, ¶¶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, ¶¶126-29.

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. *Id.*, ¶¶31, 43, 57. Pou, like the ’691 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, ¶¶142-48.

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.

A POSA would have been motivated to combine Peled and Pou to provide a comprehensive license management framework. Pou would improve the efficiency and accuracy of Peled’s identification and distribution of content. EX1002, ¶¶340-42. 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.*, ¶¶340-44. 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.*, ¶¶345-49.

Peled already 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, ¶¶346-50. 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, ¶¶350-51. 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. For example, a fingerprint is a compact, “reduce-bit representation of content” and therefore provides fast and computationally efficient comparisons. EX1006, ¶142; EX1002, ¶¶346-51.

The Peled-Pou combination 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, ¶¶351-52.

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, ¶¶353-55. 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 X.C.1; EX1002, ¶353.

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. EX1002, ¶¶354-55; EX1003, ¶¶168-69.

D. Peled-Pou discloses Claim 1.

1. [1P].

To the extent the preamble is limiting, Peled distributes media content items (digital media files) to content consumers. EX1003, ¶¶1, 7, 10, 158, 166, 173-77, 197. Consumers 14 use a general-purpose computer (i.e., the claimed “multimedia hardware device”) to consume the content. *Id.*, ¶¶121, 159; EX1002, ¶¶356-59.

Peled's "apparatus 20" distributes authorized reproductions of media content items to content consumers. EX1004, ¶¶166-68, FIG. 6.

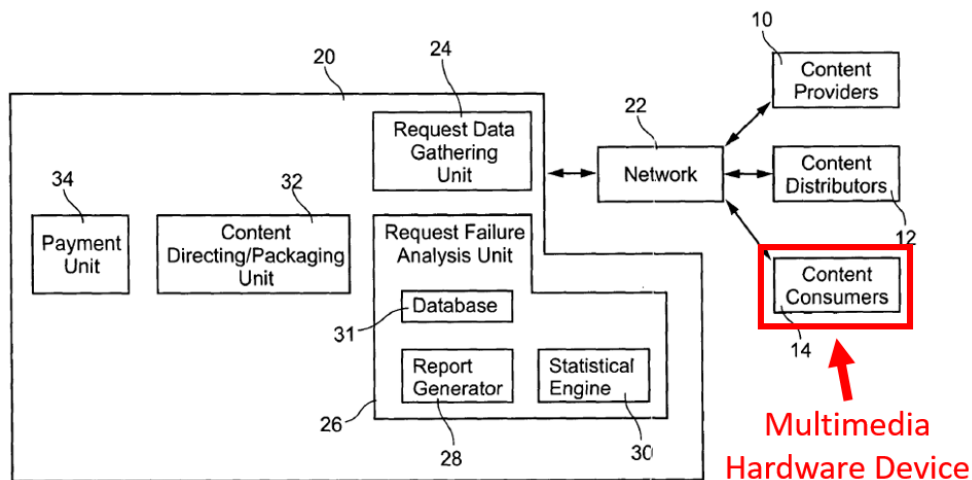


Fig. 6

EX1003, FIG. 6 (annotated).

Content directing/packaging unit 32 directs "video files/*streams*" and other digital "content items" to consumers and therefore allows the consumers to stream content. *Id.*, ¶¶14-15, 166, 176-78, 197; EX1002, ¶¶361-62. Pou also describes streaming media files to a "user device." EX1005, ¶¶50, 55, 64, 108-10. Peled-Pou thus discloses the preamble. EX1002, ¶¶360.

As explained above, the context of claim 1 suggests that at least some of its limitations recited below would be practiced by the licensing system on the server, and it would have been obvious to perform any of these claim steps at the server or client. Sections IV.C, VI.D.1. Indeed, Peled explains that its system "is not limited in its application to the details of construction and the arrangement of the

components set forth” in its disclosure and figures, and that “other embodiments” are possible, and the system can be “carried out in various ways.” EX1003, ¶¶156, 201; EX1002, ¶¶363-68.

2. [1A] “receiving a first request from a first user to evaluate streaming the media content item and a second request from a second user to evaluate streaming the media content item.”

Peled’s consumers can make “online *requests for content*” using their computing devices by interacting with a website to browse and “order content.” EX1003, ¶¶61, 155, 159; *see also id.*, 161, 164, 175-78, 180; EX1002, ¶¶369-70. Peled describes scenarios, for example, in which consumers “request a particular movie.” EX1003, ¶¶158, 175-78. Those requests are received by Peled’s server. *Id.*, ¶¶28, 159, 167, claims 12, 112; EX1002, ¶369.

A POSA would have understood that multiple consumers can simultaneously make requests for the same media content item and that consumers’ requests to stream are in fact requests to “evaluate streaming” because consumers can ultimately “decline[] to complete the transaction” even after having requested a particular media content item. EX1003, ¶¶159, 169, 176-77; EX1002, ¶¶370-72. Thus, the act of requesting media content enables the consumer to evaluate streaming that content rather than actually streaming it. EX1002, ¶370.

3. [1B] “identifying the media content item by determining a media fingerprint ...”

Peled’s system identifies requested media content items, generally, as there would be no way to provide a consumer with the requested item without first identifying that which the consumer has requested. EX1002, ¶¶373-74. Indeed, Peled expressly states that its system “independently analyz[es] content requests” for that purpose. EX1003, ¶158. 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, ¶374.

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

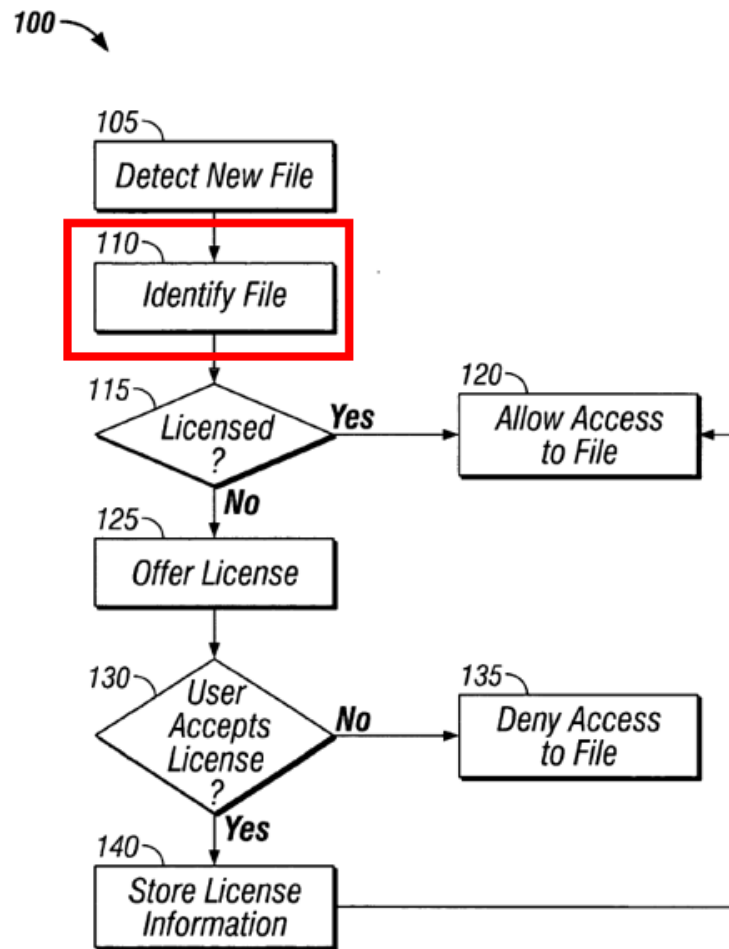


FIG. 1

EX1005, FIG. 1 (annotated).

Pou’s software uses “watermarking and ***fingerprinting*** techniques” for this purpose, which Pou states were “known in the field of digital rights management.” *Id.*, ¶54. Pou extracts “a digital fingerprint” that embodies the “internal attributes” of the file and “compares 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, ¶¶375-78.

Indeed, Pou uses the same language to describe its fingerprinting algorithm as the '691 patent itself. EX1005, ¶¶53-54 (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. *Id.*, ¶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, ¶379.

To the extent the claimed “identifying” step is interpreted to occur at the user device, Pou discloses this. Pou describes analyzing digital files at a user device to determine a fingerprint or unique identification. EX1005, ¶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”). For example, at steps 105 and 110 of Figure 1, Pou detects a loaded file and then identifies the file. *Id.*, ¶51. Pou’s user device “extracts a digital

fingerprint from a digital file and compares the extracted fingerprint to a database of known works.” *Id.*; EX1002, ¶¶380-82.

To the extent the claimed “identifying” step is interpreted to occur at the server, Pou likewise discloses this. For example, Pou describes referring to “one or more license databases, which may be stored locally (e.g., on the user device) **and/or remotely (e.g., at a central server)**” using the fingerprint to determine whether a file has been licensed. EX1005, ¶55. This process includes “extracting a digital fingerprint from the media file and comparing the fingerprint with fingerprints of known media files.” *Id.*, ¶82. From this disclosure, a POSA would have understood that Pou’s fingerprint-identification algorithm would be performed on Pou’s server to load Pou’s central database with digital fingerprints for subsequent comparison. *Id.*, ¶¶43, 52; EX1002, ¶¶83-84.

A POSA would have been motivated to implement Pou’s fingerprint-identification algorithm at either Peled’s user devices or its server for and had a reasonable expectation of success all the reasons previously discussed. Section X.C; EX1002, ¶¶380-85.

4. [1C] “extracting first user data specific to the first user when the first user accepts to stream the media content item.”

Peled extracts user demographic data when users accept to stream content. EX1003, ¶¶1-2, 169, 172, 175-77, 186. 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, 142-143.

Peled generates “reports” for content providers, which summarize the user data. *Id.*, ¶168; *see also id.*, ¶¶54, 69-70, 155, 172, 180. The reports include demographic information and a “statistical analysis of data of non-completed requests taken together to determine why requests are not being completed.” *Id.*, ¶¶168-69, 175, 183. This enables third parties to gauge demographics of those who have acquired or declined a license. *Id.*, ¶¶9, 155, 172, 177, 196-98, 200; EX1002, ¶¶386-88.

5. [1D] “extracting second user data specific to the second user when the second user declines to stream the media content item;”

Peled also extracts such data when a consumer ***declines*** to stream media content. EX1003, ¶¶155, 169, 175-77, 186. Peled’s “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; EX1002, ¶¶389-90.

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.” EX1003, ¶185. Alternatively, a user may ***explicitly*** decline to stream content—e.g., where a user “made a purchase attempt” but then aborted the attempt. *Id.*, ¶186. 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, ¶¶390-91.

By tracking this information, Peled’s system can determine the reason why the requested media content item was declined. EX1003, ¶186; EX1002, ¶¶392-94.

6. [1E] “aggregating the extracted ... data into a first[/second] statistics record ...”

Peled aggregates user data into a statistics record corresponding to the license request. EX1003, ¶¶1-2, 169, 172, 175-77, 186; Sections X.D.4-5. Peled aggregates gathered user demographic information, such as “personal data,” geographic location, and age. EX1003, ¶¶169, 199. Peled combines the aggregated information into “profiles,” which correspond to the claimed “statistics record[s].” *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, ¶¶395-99.

7. [1F]: “storing ... the first[/second] statistics record ... so that the summarized ... user data ... is accessible to a third party online retailer.”

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

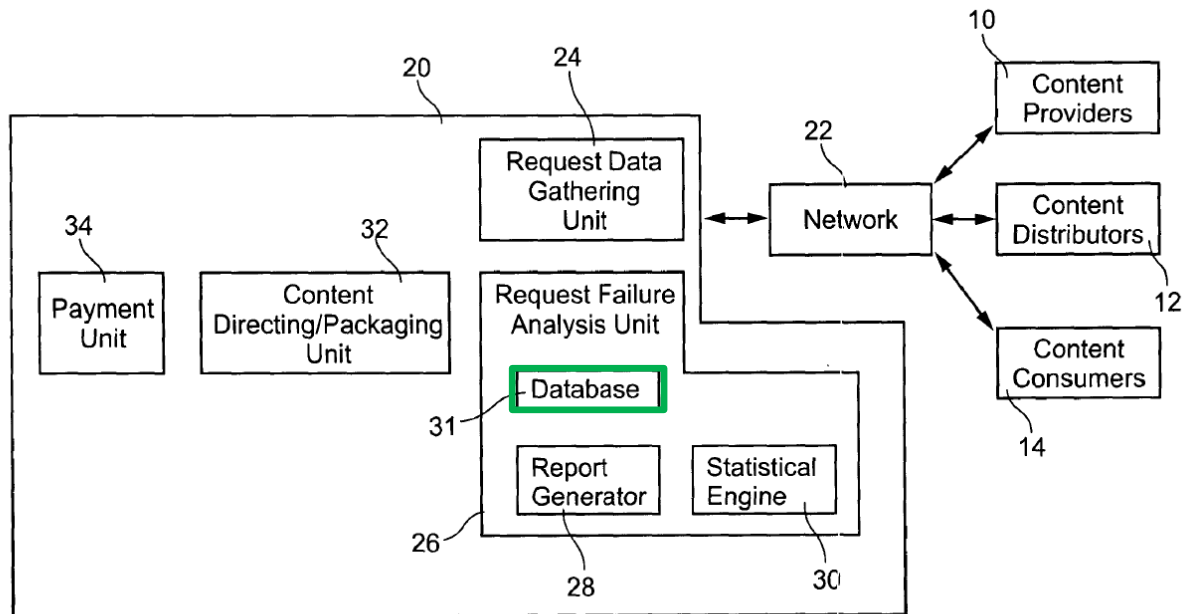


Fig. 6

EX1003, FIG. 6 (annotated).

Thus, Peled describes storing a statistics record in a database to generate reports for content providers. EX1002, ¶¶400-02; Section X.D.9. “[R]equest 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. Those reports, in turn, are “provided ... to individual

content providers” or any “party requesting the report.” *Id.*, ¶¶168, 183; Section X.D.10. Specifically, Peled explains that reports may be provided “on a content provider basis, or on a per distributor basis.” EX1003, ¶183. Peled uses the terms “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, ¶¶403-08.

8. [1G] “retrieving the first[/second] statistics record ... with the identity of the media content item determined by the media fingerprint.”

As explained above, Peled’s user “profiles” (i.e., the claimed “statistics record[s]”) are stored in a database on its server. Section X.D.7. Peled’s profiles are provided to content providers and other interested third parties in the form of reports. Section X.D.9. User profiles are “retrieved” from the database in which they are stored before they are provided to requesting parties. EX1002, ¶409.

Further, as explained above, Pou discloses identifying a requested media content item based on the item’s fingerprint. Section X.D.3. 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 provided above.

Sections X.C, X.D.3; EX1002, ¶¶410-11.

9. [1H]: “analyzing the retrieved first[/second] statistics record ... to determine a target demographic of the media content item ...”

Peled analyzes a plurality of statistics records and provides aggregated user data to content providers in the form of reports. Section X.D.6; EX1003, ¶169.

Peled describes building a “personal profile” for individual users and a profile for “groups of consumers.” EX1003, ¶¶169, 180, 183. Peled performs a “statistical analysis” of the user data to generate and provide summary reports. *Id.*, ¶183.

Peled also allows content providers to query the data for analysis. *Id.*, ¶187. The analyzed data may “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, or may reveal a hidden demand or preferences for products and/or services that a company can supply, provided that a change is made to the product as currently on offer.” *Id.*, ¶196.

When generating, Peled discloses analyzing user profile information to determine a target demographic. *Id.*; EX1002, ¶¶412-17.

10. [1I] “providing the third party online retailer the target demographic to market the media content item ...”

Peled describes “providing” reports to content providers and third parties, such as content distributors. EX1003, ¶¶93, 110, 127, 177, 183. The target demographic data “*is then provided into reports*, either on a per content item basis,

or on a content provider basis, ***or on a per distributor basis.***” *Id.*, ¶183. As explained above, Peled’s third-party content distributors disclose third-party online retailers. Section X.D.7; EX1002, ¶418.

The reports contain target demographic information used by the requesting party to engage in targeted marketing of that demographic. Section X.D.9. In particular, Peled explains that its reports 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 include the “***type of buyers and their characteristics, and more.***” *Id.*, ¶196. This information comprises a “target demographic” for the particular media content item. EX1002, ¶¶419-21.

E. Claim 7.

Claim 7 is similar to claim 1 in most material respects, but its preamble focuses on a “media content streaming and verification system,” which is not patentably distinct. Again, as described above, the claim steps need not occur at any particular device. Section IV.C, X.D.1. Peled-Pou renders claim 7 obvious for the reasons presented in claim 1, and as further explained below. EX1002, ¶¶422-27.

[7P]	Section X.D.1.
[7A]	Section X.D.2.
[7B]	Section X.D.3.
[7C]	Section X.D.4.

[7D]	Section X.D.5.
[7E]	Section X.D.6.
[7F]	Section X.D.7.
[7G]	Section X.D.8.
[7H]	Sections X.D.9-10.

Claim 7 recites a “media content streaming and verification system” and user “external devices,” and requires that the stored data be accessible “to a party other than the first and second user.” Regarding the “media content streaming and verification system” in [7P], a POSA would have understood that Peled’s server-based apparatus 20 is such a system. EX1003, ¶¶166-67; EX1002, ¶423. Regarding the “external devices,” Peled’s consumers request and access content using computing devices. Section X.D.1. Pou also describes distributing media files to a “user device, such as a computer.” EX1005, ¶¶50, 64, 108; Section X.D.1. Peled’s and Pou’s computing devices are the claimed “external devices.” EX1002, ¶424.

Finally, regarding “a party other than the first and second user” in [7F] and [7H], as explained above, Peled discloses that **any** party, including third-party content providers and retailers, can access Peled’s reports containing the underlying user profile data (i.e., the claimed “statistics record[s]”). Sections X.D.7, X.D.9-10; EX1002, ¶¶425-27.

F. Claim 9.

Claim 9 recites a “system” that performs substantially the same method recited in claim 1, which is not patentably distinct. Again, as described above, the

claim steps need not occur at any particular device. Section IV.C, X.D.1. Peled-Pou thus renders claim 9 obvious for the reasons presented in claim 1 and as further explained below. EX1002, ¶¶428-31.

[9P]	Section X.D.1.
[9A.1]	See below.
[9A.2]	See below.
[9B]	Section X.D.2.
[9C]	Section X.D.3.
[9D]	Section X.D.4.
[9E]	Section X.D.5.
[9F]	Section X.D.6.
[9G]	Section X.D.7.
[9H]	Section X.D.8.
[9I]	Sections X.D.9-10.

Claim 9 recites a “processor” and “memory.” Regarding the “processor” in [9A.1], Peled explains that its server contains “a **processor** ... for analyzing failures to fulfill the requests and to use the analysis to repackage the content to minimize the failures to fulfill, or to obtain pre-repackaged content.” EX1003, ¶¶62-63, 69, 74, claims 33-34, 40, 45, 130-31, 137, 142. Likewise, a POSA would have understood that the consumer’s computing device (i.e., the claimed “external device”) includes a processor. All such devices require processors to operate, and such devices would require processors to perform Peled’s methods. In any event, Pou’s “user device 205 includes **a processor 210.**” EX1005, ¶¶57, 113; EX1002, ¶429.

Regarding the “memory” in [9A.2], Peled’s server contains a database in which various data is stored, as explained above. Section X.D.7. A POSA would have understood and it would have been obvious that in order for the database to store data, the server includes memory. EX1002, ¶430. Further, a POSA would have also understood that the consumer’s computing device includes a memory. *Id.* Additionally, Pou’s “user device 205 includes a processor 210, ***which may execute instructions stored in a memory 215.***” EX1005, ¶¶57, 113; EX1002, ¶430.

G. Claim 15.

Claim 15 is similar to claim 1 in most material respects except that it involves a single user requesting to stream two different media content items, which is not patentably distinct. Again, as described above, the claim steps need not occur at any particular device. Section IV.C, X.D.1. Peled-Pou thus renders claim 15 obvious for the reasons presented in claim 1 and as further explained below. EX1002, ¶¶431-39.

[15P]	Section X.D.1.
[15A]	Section X.D.2.
[15B]	Section X.D.3.
[15C]	Section X.D.3.
[15D]	Section X.D.4.
[15E]	Section X.D.5.
[15F]	Section X.D.6.
[15G]	Section X.D.7.
[15H]	Section X.D.8.
[15I]	Section X.D.9.
[15J]	Section X.D.10.

Claim 15 recites a multimedia hardware device configured to stream a “plurality of media content items” and requires the system to identify and analyze data from one user and two different media content items. Regarding streaming a “plurality of media content items” in [15P], Peled states that its system can “provide **different content items** from different data holding sites to fulfill a single request.” EX1003, ¶¶14, 23, 80, 94, 111. Peled also states that its system offers “**a range of content items** to consumers.” *Id.*, ¶¶28, 159, 167-68. And a POSA would have understood from this disclosure that a single consumer could request multiple media content items, as required in [15A]. Section X.D.2; EX1002, ¶¶433-34.

Likewise, regarding the use of multiple fingerprints in [15C], a POSA would have understood that Pou’s fingerprints can identify multiple media-content items rather than just a single item. Indeed, 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. A POSA would have been motivated to implement Pou’s fingerprinting techniques in either Peled’s consumer devices or its server and had a reasonable expectation of success. Sections X.C, X.D.3; EX1002, ¶435.

Regarding a single user’s data being aggregated into separate records in [15F], a POSA would have understood that different profiles could be compiled for each media content item a user requests. EX1003, ¶183 (noting that collected data

can be provided into reports “on a per content item basis”). Likewise, regarding [15I] and [15J], a POSA would have understood that Peled’s aggregated user data can be used to determine a single target demographic or multiple demographics for two separate media-content items rather than for just a single item. In particular, a single report for each media-content item may be generated, or a single report for both 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”). From this disclosure, a POSA would have understood that Peled’s statistics may be analyzed to determine a target demographic based on the data of users who accept and decline to stream content. Sections X.D.9-10; EX1002, ¶¶436-38.

H. Claims 2 and 10 (“receiving a license” and “preventing reproduction ... when the first and second requests are 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[’s] device is allowed.” *Id.*, ¶¶25-27, 56, 101; EX1002, ¶¶440-43.

Pou also prevents reproduction when the licensing request is declined, for example, when “no payment method offered is validated.” EX1005, ¶¶56, 80; EX1002, ¶¶444. A POSA would have been motivated to use this feature of Pou in

Peled's system to prevent contravention of Peled's licenses and had a reasonable expectation of success. Section X.C; EX1002, ¶¶446-48. Further, Peled describes declining a request to obtain a license based on business rules as well as to prevent fraud. EX1003, ¶¶175, 187; EX1002, ¶445

I. Claims 3 and 11 (“plurality of streaming[/reproduction] parameters”).

Peled describes packaging content with “additional advertising content” that may affect the price of a license. EX1003, ¶¶158, 177. Peled also offers a “lower resolution or edited versions of the movie” to reduce costs. *Id.*, ¶¶158, 175-76 (“Italian subtitles” and age restrictions). These examples show Peled reproducing content based on different parameters. EX1002, ¶¶449-52.

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, ¶¶453-55.

J. Claims 4 and 12 (“stor[ing] in a license database the first[/second] user data ... that is accessible to the third party”).

Peled explains that “profiles of individual consumers or groups of consumers”—which include “geographical factors” and “personal data of the

individual consumers”—are stored in a “database” 31 located on Peled’s server-based apparatus. EX1003, FIG. 6, ¶169; Section X.D.7; EX1002, ¶¶456-57.

Further, a POSA would have understood that multiple consumers would use Peled’s system, and thus Peled’s database stores user data associated with multiple consumers. Section X.D.7; EX1002, ¶460. Indeed, Peled states that the database stores “personal data of a statistically constructed group of consumers.” EX1003, ¶169. As described above, the stored data is accessible to a third party, including third-party online media retailers that have been selected by the copyright owner to distribute the media-content item. Section X.D.7. Indeed, copyright owners—by definition—have exclusive rights to distribute their content. EX1003, ¶183; EX1002, ¶¶461.

Finally, a POSA would have found it obvious to store Peled’s user profile data in a licensing database, such as the “central license database 250” described in Pou because both are conventional memory systems. Section X.C; EX1002, ¶459. Peled’s and Pou’s databases commonly organize media information based on particular users—allowing for the efficient management of the license management system. EX1002, ¶¶458-61.

K. Claims 6 and 16 (“geographic location”).

Peled discloses tracking geographic location information as part of the stored demographic user data. Section X.D.4; EX1003, ¶¶56, 74, 169, 176, 186, 196; EX1002, ¶¶462-65.

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

Peled-Pou discloses storing license information corresponding to different users and granting licenses to user devices attempting to reproduce content. Sections X.7, X.H. Peled-Pou also discloses generating and storing license records in a registered user database. EX1002, ¶¶466-68. Pou stores user license information for “individual users” in a local database and/or a central database, which discloses the claimed generation and storage of a “license record.” EX1005, ¶¶27, 55, 59, 85, 101; EX1002, ¶¶468-69.

Peled-Pou also track “registered” users and store records in a “registered user database.” EX1002, ¶¶468-70. Peled tracks user identification and purchase habits via a “cookie” or a user “logging in” with registered user credentials. EX1003, ¶¶177, 187, 194. Pou also describes a central server identifying a user based on user-login credentials. EX1005, ¶¶91, 96. Therefore, Peled-Pou tracks registered user information. EX1002, ¶¶469-74.

M. Claim 17 (first and second versions of 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 X.D.1; EX1003, ¶¶7, 158, 175-77; EX1002, ¶¶475-76.

A POSA would have understood that consumers could request different versions of an audiovisual work. Indeed, Peled expressly refers to multiple versions of movies, stating that its system can distribute original versions as well as "lower resolution or edited versions of the movie." EX1003, ¶¶158, 175 (describing an example in which a consumer is offered "an edited version of [a] movie which is suitable for all ages"). Peled likewise refers to versions of movies from foreign content providers containing subtitles for non-English speaking consumers. *Id.*, ¶176; EX1002, ¶¶477-78.

XI. GROUND 6: CLAIMS 5 AND 13 ARE OBVIOUS OVER PELED-POU-VIJAY.

Vijay discloses hardware device manufacturers that provide DRM protection, as explained in Section VII. EX1002, ¶¶149-51, 479-85; EX1008, ¶¶2-3, 22-23, 25, 27, 45-46, FIG. 1. Peled-Pou-Vijay discloses providing user data to a "hardware device manufacturer." A POSA would have found it obvious to allow a DRM device manufacturer to access Peled's reports to provide additional "secure, dynamic device profiling" prior to decrypting content for reproduction, and had a reasonable expectation of success. EX1008, ¶¶29, 34, 39, 56, 60, 73-76. For

example, Peled-Pou-Vijay could use a consumer's geographic location information to confirm an expected user device prior to decrypting content for reproduction. EX1002, ¶¶479-84. A POSA would have been motivated to combine Vijay with Peled and Pou to provide this additional security and had a reasonable expectation of success. *Id.*, ¶¶484-85. Peled-Pou discloses storing user data in a "license database." Section X.J; EX1002, ¶484.

XII. GROUND 7: CLAIM 14 IS OBVIOUS OVER PELED-POU-BRANDSTETTER.

Dependent claim 14 requires the user data to include "a quantity of times that the first user and the second user has previously accessed the media content item and additional media content items." EX1001, 17:66-15:2. Peled discloses tracking user data including additional media content items. Section X.D.4; EX1003, ¶177; *see also id.*, ¶¶162, 169, 181, 200; EX1002, ¶486.

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, ¶¶486-88; Section VI.M.

A POSA would have made the Peled-Pou-Brandstetter combination 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, ¶489. 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, ¶489; EX1003, ¶177. Also, Brandstetter's rental option may be offered for a lower price and be provided when a consumer has "shown a willingness to purchase at a given lower price" as explained in Peled. EX1002, ¶489; EX1003, ¶177; EX1004, ¶¶75, 120. Implementing Brandstetter's tracking would provide rental functionality for offering content and also provide additional accuracy for Peled's user demographic data. EX1002, ¶489.

XIII. GROUND 8: CLAIMS 18-20 ARE 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 X.D.3. 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 VIII; EX1002, ¶¶152-54, 490-95.

As explained above, a POSA would have been motivated to use Rassool's fingerprints in Peled's system and had a reasonable expectation of success.

Sections VIII, X.D.3; EX1002, ¶¶495-97.

XIV. GROUND 9: CLAIMS 21-23 ARE OBVIOUS OVER PELED-POU-FLORY.

Peled refers generally to electronic media "content" and does not limit the type of content that can be used with its system. Further, Peled specifically refers to "books" in describing the problems inherent in online targeted marketing that its system tries to solve. EX1003, ¶7. 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; EX1002, ¶¶498-500.

Further, Flory discloses fingerprints correspond to "a preselected number of words in" an e-book. In particular, Flory describes generating a "unique digital string generated based on content characters and layout (*number of words*, characters, spaces, date, etc)." EX1078, ¶660. A POSA would have understood and found it obvious that the number of words is preselected, as it was well known in the art that fingerprints for digital texts relied on blocks of text containing a number of words "chosen by the user." EX1062, 117; EX1079; EX1002, ¶¶155-57, 501-05. Flory's fingerprint can be used to distinguish between different versions of text. EX1078, ¶¶660-62.

A POSA would have been motivated to use Flory's fingerprinting technique in combination with Peled and Pou and had a reasonable expectation of success. Pou explains that "fingerprinting techniques" can be used to identify the media file, which were well known in the art. EX1005, ¶54. Flory describes one such fingerprinting technique for digital text. EX1002, ¶¶506-09. Flory's technique is advantageous because it allows computer-based systems to efficiently distinguish between different versions of digital content, which is precisely what Pou's fingerprints are intended to do. Sections X.D.3, IX. Such techniques, moreover, have long been used to protect against piracy of e-books and would have been useful for that purpose in Pou's system. EX1002, ¶508.

XV. 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, ¶¶510-11.

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

The Board should not deny the Petition under § 314(a) or § 325(d).

A. The Board Should 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.

***Petition for Inter Partes Review of
U.S. Patent No. 10,860,691***

On January 8, 2021, PO filed a lawsuit against Petitioner asserting the '691 patent in the Western District of Texas. EX1064. PO did not serve Petitioner 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. 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*.

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.

XVII. 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 '691 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

***Petition for Inter Partes Review of
U.S. Patent No. 10,860,691***

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

The '691 patent and U.S. Patent Nos. 9,898,590, 10,657,226, 10,515,191, 10,885,154, 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 10,885,154 (IPR2022-00394), which were also asserted in the *Media Chain, LLC v. Roku, Inc.* district court litigation proceeding.

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

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

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

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

XVIII. STANDING (37 C.F.R. § 42.104(a))

Petitioner certifies that the '691 patent is available for IPR, and that Petitioner is not barred or estopped from requesting an IPR of the '691 patent. The assignee of the '691 patent, Media Chain, LLC, served a complaint against Petitioner in the Western District of Texas (case no. 1:21-cv-00027) on January 19, 2021, asserting the '691 patent. EX1069.

XIX. CONCLUSION

The Board should institute IPR and find all claims unpatentable.

Respectfully submitted,

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/Lestin Kenton/

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Date: January 10, 2022

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APPENDIX A: LISTING OF CHALLENGED CLAIMS

1. **[1P]** A computer implemented method for configuring a multimedia hardware device to stream a media content item, comprising:

[1A] receiving a first request from a first user to evaluate streaming the media content item and a second request from a second user to evaluate streaming the media content item;

[1B] identifying the media content item by determining a media fingerprint that identifies 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;

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

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

[1E] aggregating 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;

[1F] storing in a database the first statistics record and the second statistics record so that the summarized first user data and second user data is accessible to a third party online retailer;

[1G] retrieving the first statistics record and the second statistics record with the identity of the media content item determined by the media fingerprint;

[1H] analyzing the retrieved first statistics record and the retrieved second statistics record to determine a target demographic of the media content item based on a first demographic corresponding to the first user data that accepted to stream the media content item and a second demographic corresponding to the second user data that declined to stream the media content item; and

[1I] providing the third party online retailer 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 method of claim 1, further comprising:

receiving a license to reproduce the media content from a licensing system when at least one of the first request and second request is granted by a licensing system; and

preventing reproduction of the media content item when the first and second requests are declined by the licensing system.

3. The method of claim 2, further comprising:

streaming the media content item based on a plurality of streaming parameters in the license that is received from the licensing system.
4. The computer implemented method of claim 1, further comprising:

storing in a license database the first user data and the second user data that is associated with the respective first user and second user that is attempting to stream the media content item that is accessible to the third party online media retailer that has been selected by a copyright owner to distribute the media content item.
5. The computer implemented method of claim 1, further comprising:

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

6. The method of claim 1, wherein the first user data and the second user data includes a respective first and second geographic locations of the first user and the second user who are requesting the media content item.

7. **[7P]** A computer implemented method for configuring a media content streaming and verification system to stream media content comprising:

[7A] receiving a first request from a first external device associated with a first user to evaluate streaming the media content item and a second request from a second external device associated with a second user to evaluate streaming the media content item;

[7B] identifying the media content item by determine a media fingerprint that identifies 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;

[7C] extracting first user data specific to the first user when the user accepts to stream the media content item;

[7D] extracting second user data specific to the second user when the second user declines to stream the media content item;

[7E] aggregating 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;

[7F] storing in a database the first statistics record and the second statistics record so that the summarized first user data and second user data is accessible to a party other than the first user and the second user,

[7G] retrieving the first statistics record and the second statistics record with the identity of the media content item determined by the media fingerprint;

[7H] analyzing the retrieved first statistics record and the retrieved second statistics record to determine a target demographic of the media content item based on a first demographic corresponding to the first user data that accepted to stream the media content item and a second demographic corresponding to the second user data that declined to stream the media content item to provide a party other than the first user and the second user 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.

8. The method of claim 7, further comprising:

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

9. **[9A]** A system for configuring a multimedia hardware device to generate an authorized reproduction of a media content item included in a digital media file, comprising:

[9A.1] at least one processor; and

[9A.2] a memory coupled with the processor, the memory including instructions that, when executed by the processor cause the processor to:

[9B] receive a first request from a first user to evaluate streaming the media content item and a second request from a second user to evaluate streaming the media content item,

[9C] identify the media content item by determining a media fingerprint that identifies 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,

[9D] extract first user data specific to the first user when the user accepts to stream the media content item,

[9E] extract second user data specific to the second user when the second user declines to stream the media content item,

[9F] 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,

[9G] store in a database the first statistics record and the second statistics record so that the summarized first user data and the second user data is accessible to a third party online retailer, and

[9H] retrieve the first statistics record and the second statistics record with the identity of the media content item determined by the media fingerprint;

[9I] analyze the retrieved first statistics records and the second retrieved statistics record to determine a target demographic of the media content item based on a first demographic corresponding to the first user data that accepted to stream the media content item and a second demographic corresponding to the second user data that declined to stream the media content item to provide the third party online retailer 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.

10. The system of claim 9, wherein the processor is further configured to:
receive a license to reproduce the media content item from a licensing system when the at least one of the first request and second request is granted by the licensing system; and

prevent reproduction of the media content item when the first and second requests are declined by the licensing system.

11. The system of claim 9, wherein the processor is further configured to reproduce the media content item based on a plurality of reproduction parameters included in the license that is received from the licensing system.

12. The system of claim 9, wherein the processor is further configured to store in the license database the first user data that is associated with the first user that is accepting to stream the media content item and the second user data that is associated with the second user that is declining to stream the media content item that is accessible to the third party online media retailer that has been selected by a copyright owner to distribute the media content item.

13. The system of claim 9, wherein the processor is further configured to store in the license database the first user data that is associated with the first user that is accepting to stream the media content item and the second user data that is associated with the second user that is declining to stream the media content item that is accessible to a hardware device manufacturer that manufacturers hardware that is implemented by the multimedia hardware device.

14. The system of claim 9, wherein the first user data and the second user data includes a quantity of times that the first user and the second user has previously accessed the media content item and additional media content items.

15. **[15P]** A computer implemented method for configuring a multimedia hardware device to stream a plurality of media content items, comprising:

[15A] receiving a first request from a user to evaluate streaming a first media content item and a second request from the user to evaluate streaming a second media content item;

[15B] identifying 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 recorded creation of the first media content

item, and excluding information introduced to the first media content item extraneous to the recorded creation;

[15C] identifying 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 recorded creation of the second media content item, and excluding information introduced to the second media content item extraneous to the recorded creation;

[15D] extracting first user data specific to the user when the user accepts to stream the first media content item;

[15E] extracting second user data specific to the user when the user declines to stream the second media content item;

[15F] aggregating 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;

[15G] storing in a database the first statistics record and the second statistics record so that the summarized first user data and second user data is accessible to a third party online retailer;

[15H] retrieving the first statistics record and the second statistics record with the identity of the first and second media content items determined by the first and second media fingerprints;

[15I] analyzing the retrieved first statistics record and the retrieved second statistics record to determine a target demographic of the first and second media content items based on the first user data that accepted to stream the first media content item and the second user data that declined to stream the second media content item; and

[15J] providing the third party online retailer the target demographic to market the first and second media content items to a plurality of other users corresponding to the target demographic of the first and second media content items.

16. The method of claim 15, wherein the first and second user data includes geographic location of the user who is requesting the first and second media content items.

17. The method 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 audio visual work.

18. The method of claim 1, wherein the media content item is a song, and the unique characteristic inherently present in the media content item is selected from the group consisting of lyrics included in the song, notes played in the song, and a sampled sound wave included in the song.

19. The method of claim 7, wherein the media content item is a song, and the unique characteristic inherently present in the media content item is selected from the group consisting of lyrics included in the song, notes played in the song, and a sampled sound wave included in the song.

20. The method of claim 9, wherein the media content item is a song, and the unique characteristic inherently present in the media content item is selected from the group consisting of lyrics included in the song, notes played in the song, and a sampled sound wave included in the song.

21. The method of claim 1, wherein the media content item is a book in digital format, and the unique characteristic inherently present in the media content item is a preselected number of words in the book.

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22. The method of claim 7, wherein the media content item is a book in digital format, and the unique characteristic inherently present in the media content item is a preselected number of words in the book.

23. The method of claim 9, wherein the media content item is a book in digital format, and the unique characteristic inherently present in the media content item is a preselected number of words in the book.

**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 13,982 words, excluding the parts exempted by 37 C.F.R. § 42.24(a).

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

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*Petition for Inter Partes Review of
U.S. Patent No. 10,860,691*

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. 10,860,691** and all associated exhibits were served in their entirety on the following parties via FedEx Express® or Express Mail:

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