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**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

WELLCOMEMAT, LLC,

Plaintiff,

v.

AYLO HOLDINGS S.à r.l., AYLO
FREESITES LTD, AYLO PREMIUM, LTD,
9219-1568 QUEBEC, INC., and JARROD
BELTRAN,

Defendants.

C.A. No. 2:23-cv-483-JRG-RSP

JURY TRIAL DEMANDED

**DEFENDANTS AYLO HOLDINGS S.à r.l., AYLO FREESITES LTD,
AYLO PREMIUM LTD, AND 9219-1568 QUEBEC, INC.'S
INITIAL INVALIDITY AND SUBJECT MATTER INELIGIBILITY CONTENTIONS**

I. INTRODUCTION

Pursuant to the Court's Docket Control Order (Dkt. No. 37), the Court's Standing Order Regarding Subject Matter Eligibility Contentions dated July 25, 2019, and Local Patent Rules 3-3 and 3-4, Defendants Aylo Holdings S.à r.l., Aylo Freesites Ltd, Aylo Premium Ltd, and 9219-1568 Quebec Inc. (collectively, "Defendants" or "Aylo"), by their undersigned attorneys, hereby provide initial identification of the prior art references and other grounds that render each of the claims asserted by Plaintiff WellcomeMat, LLC ("Plaintiff" or "WellcomeMat") against Defendants in the above captioned action invalid under 35 U.S.C. §§ 101, 102, 103, and/or 112 ("Initial Invalidity Contentions").

Plaintiff served its P.R. 3-1 and 3-2 Disclosure of Asserted Claims and Infringement Contentions on March 11, 2024 ("Infringement Contentions"). Plaintiff is asserting that Defendants infringe claims 13, 14, 15, 18, 19, and 20 of U.S. Patent No. 8,307,286 (the "'286 patent" or "Asserted Patent") (the "Asserted Claims").

Because the Patent Rules require that a defendant accused of infringement set forth invalidity contentions only with regard to the "asserted claims" (*see* P.R. 3-3), Defendants do not provide any invalidity contentions regarding any claims not asserted against them. To the extent that the Patent Rules and/or the Court permit Plaintiff to assert additional claims against any of the Defendants in the future, Defendants reserve all rights to disclose new or supplemental invalidity contentions regarding such claims.

Plaintiff, in its Infringement Contentions, pursuant to P.R. 3-1(e), identified the earliest alleged priority date of the '286 patent as January 3, 2006. Defendants do not concede that the Asserted Claims are entitled to this priority date and reserve the right to challenge the asserted priority date. If Plaintiff later seeks to assert a specific earlier invention or priority date than the

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date set forth above, Defendants reserve the right to revise, amend, and supplement these Initial Invalidity Contentions, including to identify additional information supporting prior art identified herein, and/or additional prior art, to respond to such assertions.

In these Initial Invalidity Contentions pursuant to P.R. 3-3, for each Asserted Claim of the '286 patent, Defendants: (a) identify currently known prior art that either anticipates or renders obvious each Asserted Claim; (b) specify whether each such item of prior art anticipates or renders obvious the applicable claim; (c) submit Invalidity Charts for illustrative prior art references identifying where each element is disclosed or rendered obvious by the prior art; and (d) identify the grounds for invalidating any of the Asserted Claims based on indefiniteness under pre-AIA 35 U.S.C. § 112, second paragraph, or lack of enablement or written description under pre-AIA 35 U.S.C. § 112, first paragraph. Further, pursuant to the Court's Standing Order Regarding Subject Matter Eligibility Contentions dated July 25, 2019, Defendants identify grounds for invalidating the Asserted Claims for claiming ineligible subject matter, and thus failing to meet the 35 U.S.C. § 101 threshold.

II. RESERVATIONS

Consistent with P.R. 3-6, Defendants reserve the right to revise, amend, and supplement these Initial Invalidity Contentions. The information and documents Defendants produce under P.R. 3-4 are provisional and subject to further revision. Defendants reserve the right to revise, amend, and supplement these disclosures and the subsequent document production should Plaintiff (1) provide any information that it failed to provide in its P.R. 3-1 and 3-2 disclosures; (2) amend its P.R. 3-1 or 3-2 disclosures in any way; or (3) attempt to rely upon any information at trial, in a hearing, or during a deposition which it failed to provide in its P.R. 3-1 and 3-2 disclosures.

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Defendants provide the information below, as well as the accompanying production of documents, for the sole purpose of complying with P.R. 3-3 and 3-4. The information provided shall not be deemed an admission regarding the scope of any claims or the proper construction of those claims or any terms contained therein. Nothing contained in these Initial Invalidity Contentions should be understood or deemed to be an express or implied admission or contention with respect to the proper construction of any terms in the Asserted Claim, or with respect to the alleged infringement of those claims. Defendants further reserve the right to prove the invalidity of the Asserted Claims on bases other than those required to be disclosed in these disclosures and contentions pursuant to P.R. 3-3.

Discovery has only recently begun, and Defendants' prior art investigation is not complete. Defendants have not yet taken the deposition of any of the named inventors of the '286 patent, nor have they taken discovery from third parties who may have information concerning prior art identified herein and/or additional prior art. Defendants' investigation of prior art is ongoing and they intend to diligently pursue discovery. Accordingly, Defendants reserve the right to revise, amend, and supplement these Initial Invalidity Contentions, including to identify additional information supporting prior art identified herein, and/or additional prior art, as they receive information from these or other parties, consistent with the Patent Rules and the Federal Rules of Civil Procedure. By way of example, Defendants reserve the right to present additional items of prior art under pre-AIA 35 U.S.C. § 102(a), (b), (e), or (g), and § 103 located during the course of discovery or further investigation. In addition, Defendants reserve the right to assert invalidity under pre-AIA 35 U.S.C. § 102(c), (d), or (f) to the extent that discovery or further investigation yield information forming the basis for such invalidity.

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Defendants also reserve the right to revise, amend, and supplement these Initial Invalidity Contentions if Plaintiff later provides any information that it failed to provide in its Infringement Contentions, or if Plaintiff amends, supplements, alters, or explains its disclosures in any way. Defendants note that Plaintiff's Infringement Contentions are vague, do not comply with the requirements set forth in the Patent Rules, and fail to provide sufficient detail concerning Plaintiff's infringement theory to determine what Plaintiff contends to be infringing functionality or how any product or service offered by Defendants satisfy any particular claim or claim limitation. Put another way, Defendants attempted as best they could to understand Plaintiff's infringement theory and rely on this understanding in setting forth these Initial Invalidity Contentions. But because Plaintiff's Infringement Contentions are so vague and incomplete, Defendants are not entirely sure how Plaintiff is interpreting the claims nor are Defendants entirely sure what Plaintiff's infringement theory is, which may have impacted Defendants' search for prior art and interpretation of any art located.

Defendants provide these Initial Invalidity Contentions without waiving any right to receive from Plaintiff such full and complete specific infringement disclosures as should have been provided from the outset. Defendants' compliance with the current schedule should not be viewed as a waiver of any rights with respect to Plaintiff's Infringement Contentions. In view of such deficiencies, Defendants reserve the right to revise, amend, and supplement these Initial Invalidity Contentions, including to identify additional information supporting prior art identified herein, and/or additional prior art, once Plaintiff's theories of infringement are meaningfully elucidated.

The parties have yet to begin the process of exchanging information regarding claim construction and the Court has not yet construed the claims of the '286 patent. Defendants therefore reserve the right to revise, amend, and supplement these Initial Invalidity Contentions in

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view of the claim construction process and in particular after the Court's determination of the scope and meaning of any claim term or element. Defendants also reserve the right to revise, amend, and supplement these contentions, including to identify additional information supporting prior art identified herein, and/or additional prior art, depending upon the positions that Plaintiff or its expert witnesses may take concerning claim interpretation, infringement, and/or invalidity issues.

In this document and in the attached Invalidity Charts, Defendants use what they understand to be Plaintiff's apparent constructions of the Asserted Claims as provided in Plaintiff's Infringement Contentions, to the extent Defendants can understand those contentions, because Plaintiff must use the same interpretation of its claims for infringement and validity. Nothing in this document or in the attached Invalidity Charts should be taken as an admission that Defendants agree with Plaintiff on the scope or interpretation of the Asserted Claims or as reflecting Defendants' understanding of the scope or interpretation of the Asserted Claims. Defendants are not taking any claim construction positions via these contentions. Rather, Defendants offer these contentions in response to Plaintiff's Infringement Contentions (to the extent they are understandable) and without prejudice to any position it may ultimately take as to any claim construction issues, the non-infringement of any Defendants' accused products, systems, or services, and the invalidity of the Asserted Claims on any ground. Accordingly, these contentions are made in the alternative, are not necessarily intended to be consistent with each other, and should not be otherwise construed. Defendants expressly reserve the right to take positions with respect to future claim construction or non-infringement issues that are inconsistent with, or even contradictory to, the claim construction or non-infringement positions expressed or implied in these Initial Invalidity Contentions.

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Defendants further reserve the right to rely upon the prosecution histories of the '286 patent and any related U.S. and foreign patents and patent applications, prior art cited in the prosecution histories of the '286 patent and any related U.S. and foreign patent and patent applications, and applicable industry standards as invalidating references or to show the state of the art at the relevant time. Defendants further intend to rely on the patent applicants' admissions concerning the scope of the prior art relevant to the '286 patent found in, *inter alia*, the patent prosecution of the '286 patent and any related patents or patent applications; any deposition testimony of the named inventors of the '286 patent; and the papers filed and any evidence submitted by Plaintiff in connection with this litigation and any proceedings involving the '286 patent and any related patents.

Prior art not included in these Initial Invalidity Contentions, whether known or not known to Defendants at this time, may become relevant. Defendants are currently unaware of the extent, if any, to which Plaintiff will contend that limitations of the Asserted Claims are not disclosed in the prior art identified herein. To the extent that such an issue arises, Defendants reserve the right to identify other references that would render obvious the allegedly missing claim(s) or claim limitation(s).

Defendants' attached Invalidity Charts cite to representative teachings and disclosures of the prior art as applied to features of the Asserted Claims. The cited portions are only examples, and Defendants reserve the right to rely on uncited portions of the references and on other publications and expert testimony as aids in understanding and interpreting the cited prior art, including to provide meaningful context or evidence that the prior art discloses a claim limitation. Defendants reserve the right to rely on uncited portions of the prior art references, other publications, prior art cited in the prosecution history files, and testimony to establish bases for

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invalidity, including, but not limited to, reasons to combine the prior art references with other prior art references.

The references discussed in the attached Invalidity Charts may disclose the elements of the Asserted Claims explicitly and/or inherently, and/or they may be relied upon to show the state of the art in the relevant time. The suggested obviousness combinations may be provided in the alternative to contentions that one or more claims are anticipated, and are not meant to suggest that any reference included in the combinations is not by itself anticipatory.

III. INVALIDITY CONTENTIONS FOR THE ASSERTED PATENT

A. P.R. 3-3(a): “The identity of each item of prior art that allegedly anticipates each asserted claim or renders it obvious”

Defendants hereby identify the references cited on the face of the '286 patent (including any related U.S. and foreign patents and patent applications), the references cited in the prosecution histories of the '286 patent (including any related U.S. and foreign patents and patent applications), and the references cited in any invalidity contentions submitted by any party, in any form, and in any action or proceeding involving the '286 patent (including any related patents), whether domestic or foreign. The identification of prior art references below is not exhaustive, and Defendants' production pursuant to P.R. 3-4 contains additional references that render one or more of the Asserted Claims invalid. Defendants reserve the right to rely upon both the listed and unlisted references produced pursuant to P.R. 3-4, as well as other art that may become known or relevant during the course of this or related proceedings.

To the extent that they are prior art to the '286 patent, Defendants also reserve the right to rely upon: (i) foreign counterparts of U.S. patents and patent publications identified in these contentions; (ii) U.S. counterparts of foreign patents and foreign patent applications identified in these contentions; and (iii) U.S. and foreign patents and patent applications corresponding to

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articles and publications identified in these contentions. Discovery is ongoing, and Defendants also reserve the right to rely upon systems, products, applications, or services embodying the references identified in these Initial Invalidity Contentions or testimony from others regarding those references, in proving the invalidity of the Asserted Claims.

Defendants incorporate by reference any prior art references or invalidity charts or explanations or motivations to combine provided in invalidity contentions or *inter partes* review papers, including accompanying expert declarations, that have been or will be submitted by parties in other matters involving any of the Asserted Claims (including any related patents), as if fully set forth herein, including without limitation any prior art references or invalidity charts or explanations submitted, or that will be submitted, in:

- *Aylo Freesites Ltd v. WellcomeMat, LLC*, IPR2024-00710 (P.T.A.B.)

Defendants' compliance with P.R. 3-3(a) here in no way is an admission that the Asserted Claims are directed to a patent-eligible subject matter under 35 U.S.C. § 101 and/or that the Asserted Claims meet the pre-AIA 35 U.S.C. § 112 requirements. Each invalidating ground separately, and in addition to each other, invalidates one or more of the Asserted Claims.

Defendants incorporate by reference the prior art references identified, or that will be identified, in the invalidity contentions or explanations of the parties in the matters noted above. Defendants further identify in Tables A-1 and A-2 below the prior art patents and patent application publications that anticipate or render obvious one or more of the Asserted Claims. This listing of prior art patents and patent application publications is exemplary, and not exhaustive. Defendants have endeavored to identify the relevant prior art patents and patent application publications in Table A-1, but the references listed in Table A-2 may contain additional support for particular claim limitations and may be relevant to the issue of anticipation and/or obviousness

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of one or more of the Asserted Claims as well as to show simultaneous invention of others and/or the knowledge of a person of ordinary skill in the art at or prior to the purported invention of the '286 patent. As such, the prior art patents and patent application publications in Table A-1 are only examples, and Defendants reserve the right to rely on the references listed in Table A-2 as additional evidence that the prior art discloses a claim limitation or the claimed subject matter as a whole and/or that the Asserted Claims would have been obvious in view of the simultaneous invention of others and/or the knowledge of a person of ordinary skill in the art.

Table A-1: Prior Art Patents and Patent Application Publications Pursuant to P.R. 3-3(a)			
Patent/Publication No.	Country	Filing/Priority Date	Issue/Publication date
2004/0021685 ("Denoue")	U.S.	July 30, 2002	February 5, 2004
2002/0175917 ("Chakavarty")	U.S.	April 10, 2001	November 28, 2002
6,173,317 ("Chaddha")	U.S.	March 14, 1997	January 9, 2001
2004/0237032 ("Miele")	U.S.	September 26, 2002	November 25, 2004
6,476,826 ("Plotkin")	U.S.	August 22, 2000	November 5, 2002
2005/0081159 ("Gupta")	U.S.	October 18, 2004	April 14, 2005
2005/0144305 ("Fegan")	U.S.	October 21, 2004	June 30, 2005
2005/0210145 ("Kim")	U.S.	March 3, 2005	September 22, 2005

Defendants further identify the additional patents and patent application publications being produced herewith, which are relevant to the issue of anticipation and/or obviousness of one or more of the Asserted Claims:

Table A-2: Additional Prior Art Patents and Patent Application Publications Pursuant to P.R. 3-3(a)			
Patent/Publication No.	Country	Filing/Priority Date	Issue/Publication date
6,681,043 ("Lau")	U.S.	August 16, 1999	January 20, 2004
2002/0083471 ("Agnihotri")	U.S.	December 21, 2000	June 27, 2002
2002/0065879 ("Ambrose")	U.S.	May 30, 2001	May 30, 2002
2005/0033758 ("Baxter")	U.S.	August 9, 2004	February 10, 2005
6,868,225 ("Brown")	U.S.	March 39, 2000	March 15, 2005
2004/090900 ("Cole")	WO	January 27, 2004	October 21, 2004
8,392,821 ("Demarco")	U.S.	March 16, 2006	November 8, 2007
2004/0230600 ("Devore")	U.S.	September 4, 2003	November 18, 2004
2005/0283810 ("Ellis")	U.S.	August 4, 2005	December 22, 2005
2003/065683 ("Gentric")	WO	January 27, 2003	August 7, 2003

6,546,405 (“Gupta Pat.”)	U.S.	October 23, 1997	May 16, 2002
7,664,678 (“Haber”)	U.S.	July 31, 2000	February 16, 2010
5,736,977 (“Hughes”)	U.S.	April 26, 1995	April 7, 1998
2002/0069415 (“Humbard”)	U.S.	September 6, 2001	June 6, 2002
2003/0231198 (“Janevski”)	U.S.	June 18, 2002	December 18, 2003
2002/0078144 (“Lamkin”)	U.S.	August 21, 2001	June 20, 2002
2004/0039934 (“Land”)	U.S.	December 18, 2002	February 26, 2004
2002/0056123 (“Liwerant”)	U.S.	March 9, 2001	May 9, 2002
2003/0093790 (“Logan”)	U.S.	June 8, 2002	May 15, 2003
2003/0191691 (“Macleod”)	U.S.	April 7, 2003	October 9, 2003
6,839,880 (“Morse”)	U.S.	October 21, 1999	January 4, 2005
2003/0115598 (“Pantoja”)	U.S.	March 21, 2002	June 19, 2003
5,675,511 (“Prasad”)	U.S.	December 21, 1995	October 7, 1997
2005/0152665 (“Shibata”)	U.S.	April 3, 2003	July 14, 2005
2004/0210945 (“Snyder”)	U.S.	May 10, 2004	October 21, 2004
2002/0069218 (“Sull”)	U.S.	July 23, 2001	June 6, 2002
6,064,380 (“Swenson”)	U.S.	November 17, 1997	May 16, 2000
2008/0163283 (“Tan”)	U.S.	January 3, 2007	July 3, 2008
2002/0099784 (“Tran”)	U.S.	January 25, 2001	July 25, 2002
2004/0194021 (“Marshall”)	U.S.	September 14, 2001	September 30, 2004
2003/067594 (“Vasilevsky”)	WO	April 11, 2002	August 14, 2003
2004/0169683 (“Chiu 1”)	U.S.	February 28, 2003	September 2, 2004
2001/0020255 (“Hofmann”)	U.S.	January 12, 2001	September 6, 2001
2003/0001904 (“Rosen”)	U.S.	May 25, 2001	January 2, 2003
6452615 (“Chiu 2”)	U.S.	March 24, 1999	September 17, 2002

Defendants further identify in Table A-3 below the non-patent publications as prior art that anticipate or render obvious one or more of the Asserted Claims. This listing of non-patent publications is exemplary, and not exhaustive, and Defendants reserve the right to rely on additional references as evidence that the prior art discloses a claim limitation or the claimed subject matter as a whole and/or that the Asserted Claims would have been obvious in view of the simultaneous invention of others and/or the knowledge of a person of ordinary skill in the art.

Table A-3: Prior Art Non-Patent Publications Pursuant to P.R. 3-3(a)	
Author(s) / Publisher(s)	Title / Date of Publication
Andrew S. Gordon / IUI '00: Proceedings of the 5th international conference on Intelligent user interfaces	“Using annotated video as an information retrieval interface” / January 2000



Dragutin Petkovic et al. / Proceedings of SPIE - The International Society for Optical Engineering	"Asynchronous multimedia annotations for Web-base collaboration in biology education" / January 2005
Michael D. Bush / Equinox Publishing Ltd.	"Digital Versatile Disc (DVD): The New Medium for Interactive Video" / 2000

Defendants further identify in Tables A-4 and A-5 below the products, systems or applications that anticipate and/or render obvious one or more of the Asserted Claims and supporting evidence for the respective product, system or application. This listing of prior art products, systems or applications is exemplary, and not exhaustive. Defendants have endeavored to identify the relevant prior art products, systems or applications in Table A-4, but the products, systems or applications listed in Table A-5 may contain additional support for particular claim limitations and may be relevant to the issue of anticipation and/or obviousness of one or more of the Asserted Claims as well as to show simultaneous invention of others and/or the knowledge of a person of ordinary skill in the art at or prior to the purported invention of the '286 patent. As such, the prior art products, systems or applications in Table A-4 are only examples, and Defendants reserve the right to rely on the prior art products, systems or applications listed in Table A-5 as additional evidence that the prior art discloses a claim limitation or the claimed subject matter as a whole and/or that the Asserted Claims would have been obvious in view of the simultaneous invention of others and/or the knowledge of a person of ordinary skill in the art.

Table A-4: Prior Art Products, Systems or Applications and Supporting Evidence for the Respective Product, System or Application Pursuant to P.R. 3-3(a)	
Product / System / Applications / Entity	Supporting Evidence
Microsoft Research Annotation System ("MRAS")	Grudin, Jonathan, and David Barger. "Multimedia annotation: an unsuccessful tool becomes a successful framework." Communication and Collaboration Support Systems. TH a. TIEK Okada. Ohmsha (2005) ("Grudin").

	Bargeron, David, et al. "Annotations for streaming video on the Web: system design and usage studies." Computer Networks 31.11-16 (1999): 1139-1153 ("Bargeron 1"). Bargeron, David, et al. "Annotations for streaming video on the web." CHI'99 extended abstracts on Human factors in computing systems. 1999 ("Bargeron 2"). Bargeron, David, et al. "Asynchronous collaboration around multimedia applied to on-demand education." Journal of Management Information Systems 18.4 (2002): 117-145 ("Bargeron 3"). Bargeron, David, et al. "As Users Grow More Savvy: Experiences with an Asynchronous Distance Learning Tool." Microsoft Research ("Bargeron 4"). Bargeron, David M., et al. "A Framework for Asynchronous Collaboration Around Multimedia and its Application to On-Demand Training." (1999) ("Bargeron 5"). Cadiz, Jonathan J., Anop Gupta, and Jonathan Grudin. "Using Web annotations for asynchronous collaboration around documents." Proceedings of the 2000 ACM conference on Computer supported cooperative work. 2000 ("Cadiz"). Computing Research Association Conference at Snowbird 2000: Slides from a workshop on the topic of "Distance Education/Learning." Presented by Anoop Gupta on Tuesday July 11, 2000. https://archive.cra.org/Activities/snowbird/00/gupta-crawk4-5.pdf ("Gupta 1"). US 2005/0081159 "User interface for creating viewing and temporally positioning annotations for media content" ("Gupta 2").
WebOrama System ("WebOrama")	Sgouropoulou, Cleo, et al. "Acquiring working knowledge through asynchronous multimedia conferencing." Journal of Educational Technology & Society 3.3 (2000): 105-111 ("Sgouropoulou 1"). Sgouropoulou, Cleo, Anastasios Koutoumano, and Emmanuel Skordalakis. "Sharing multimedia representations of practice over the Web." Campus-Wide Information Systems 17.5 (2000): 153-160 ("Sgouropoulou 2"). Sgouropoulou, Cleo, et al. "User Interface Implementation Issues for a Web-based system for Ordered Asynchronous Multimedia Annotations." https://www.eunis.org/eunis1999/Asession/A61.html (1999) ("Sgouropoulou 3").

	WayBack Machine, <i>Welcome to WebOrama</i> (Sep. 3, 1999), https://web.archive.org/web/19990903030531/http://neptune.softlab.ntua.gr:80/weborama/system/welcome.asp (“WebOrama Website”)
Vannotea System (“Vannotea”)	Schroeter, Ronald, et al. “A synchronous multimedia annotation system for secure collaboratories.” 2006 Second IEEE International Conference on e-Science and Grid Computing (e-Science'06). IEEE, 2006 (“Schroeter 1”). Khan, Imran, Ronald Schroeter, and Jane Hunter. “Implementing a secure annotation service.” International Provenance and Annotation Workshop. Berlin, Heidelberg: Springer Berlin Heidelberg, 2006 (“Khan”). Schroeter, Ronald, Jane Hunter, and Douglas Kosovic. “Vannotea-a collaborative video indexing, annotation and discussion system for broadband networks.” Knowledge markup and semantic annotation workshop, K-CAP. Vol. 3. 2003 (“Schroeter 2”). Schroeter, Ronald. “Collaborative Video Indexing, Annotation and Discussion over High-Bandwidth Networks.” Masters Thesis. March 31, 2004 (“Schroeter 3”). Schroeter, Ronald, Jane Hunter, and Douglas Kosovic. "Filmed-collaborative video indexing, annotation, and discussion tools over broadband networks." 10th International Multimedia Modelling Conference, 2004. Proceedings.. IEEE, 2004 (“Schroeter 4”). Hunter, Jane, et al. “Using the semantic grid to build bridges between museums and indigenous communities.” Proc. 11th Global Grid Forum (GGF11) on Semantic Grid Applications Workshop. 2004 (“Hunter”). Schroeter, Ronald. “Vannotea and Linguistic Data.” https://web.archive.org/web/20060914110514/http://www.itee.uq.edu.au/~ereseach/projects/vannotea/present/Vannotea_EthnoEr.pdf (“Schroeter 5”). Schroeter, Ronald. “Vannotea A collaborative video content analysis system over Access Grid Nodes.” https://web.archive.org/web/20060914110225/http://www.itee.uq.edu.au/~ereseach/projects/vannotea/present/Vannotea_eScience.pdf (“Schroeter 6”). WayBack Machine, <i>Vannotea</i> (Aug. 24, 2006), https://web.archive.org/web/20060824200019/http://www.itee.uq.edu.au/~ereseach/projects/vannotea/present/Vannotea_eScience.pdf

	uq.edu.au/~eresearch/projects/vannotea/index.html (“Vannotea Website 1”). WayBack Machine, <i>Vannotea Prototypes</i> (Sep. 06, 2006), https://web.archive.org/web/20060906094310/http://www.itee.uq.edu.au/~eresearch/projects/vannotea/prototypes.html (“Vannotea Website 2”). WayBack Machine, <i>Vannotea Screenshot</i> (Sep. 14, 2006), https://web.archive.org/web/20060914105024/http://www.itee.uq.edu.au/~eresearch/projects/vannotea/img/031014_Screenshot_FilmEd_v2.jpg (“Vannotea Website 3”). Vannotea Video Demo. WayBack Machine, <i>Vannotea Screenshot</i> (Sep. 14, 2006), https://web.archive.org/web/20060914105218/http://www.itee.uq.edu.au/~eresearch/projects/vannotea/present/Vannotea_Demo.mov (“Vannotea Video Demo”).
MediaMatrix System (“MediaMatrix”)	Rehberger, Dean, Michael Fegan, and Mark Kornbluh. "Media matrix: A digital library research tool." Proceedings of the 5th ACM/IEEE Joint Conference on Digital Libraries. IEEE Computer Society, 2005 (“Rehberger”) Kornbluh, Mark, Michael Fegan, and Dean Rehberger. "Media matrix: Creating secondary repositories." International Conference on Theory and Practice of Digital Libraries. Berlin, Heidelberg: Springer Berlin Heidelberg, 2004 (“Kornbluh”). WayBack Machine, <i>Media Matrix Homepage</i> (Dec. 12, 2005), https://web.archive.org/web/20051212134646/http://matrix.msu.edu/~mmatrix/index.php (“Media Matrix Website 1”). WayBack Machine, <i>Media Matrix Create Account</i> (Dec. 12, 2005), https://web.archive.org/web/20051212153222/http://www.matrix.msu.edu/~mmatrix/userregister.php (“Media Matrix Website 2”). WayBack Machine, <i>Media Matrix Creating Presentations</i> (Aug. 21, 2006), https://web.archive.org/web/20060821160838/http://www.matrix.msu.edu/~mmatrix/screens/prespic.gif (“Media Matrix Website 3”). WayBack Machine, <i>Media Matrix Instructions</i> (Dec. 12, 2005), https://web.archive.org/web/20051212135350/http://www.matrix.msu.edu/~mmatrix/instructions.php (“Media Matrix Website 4”).

	WayBack Machine, <i>Media Matrix Object Controls</i> (Aug. 21, 2006), https://web.archive.org/web/20060821161225/http://www.matrix.msu.edu/~mmatrix/screens/ocontrols.gif (“Media Matrix Website 5”). WayBack Machine, <i>Media Matrix Video Editor</i> (Aug. 21, 2006), https://web.archive.org/web/20060821161010/http://www.matrix.msu.edu/~mmatrix/screens/video.gif (“Media Matrix Website 6”). US 2005/0144305 “Systems and Methods for Identifying, Segmenting, Collecting, Annotating, and Publishing Multimedia Materials” (“Fegan”).
Classroom 2000 (“eClass”)	Abowd, Gregory D. “Classroom 2000: An experiment with the instrumentation of a living educational environment.” <i>IBM systems journal</i> 38.4 (1999): 508-530 (“Abowd 1”). Abowd, Gregory D., et al. “Teaching and learning as multimedia authoring: the classroom 2000 project.” <i>Proceedings of the fourth ACM international conference on Multimedia</i>. 1997 (“Abowd 2”). Abowd, Gregory D., et al. “Anchoring discussions in lecture: An approach to collaboratively extending classroom digital media.” (1999) (“Abowd 3”). Brotherton, Jason A., Janak R. Bhalodia, and Gregory D. Abowd. “Automated capture, integration, and visualization of multiple media streams.” <i>Proceedings. IEEE International Conference on Multimedia Computing and Systems</i> (Cat. No. 98TB100241). IEEE, 1998 (“Brotherton 1”). Abowd, Gregory D., Lonnie D. Harvel, and Jason A. Brotherton. “Building a digital library of captured educational experiences.” <i>Proceedings 2000 Kyoto International Conference on Digital Libraries: Research and Practice</i>. IEEE, 2000 (“Abowd 4”). Abowd, Gregory D., et al. “Investigating the capture, integration and access problem of ubiquitous computing in an educational setting.” <i>Proceedings of the SIGCHI conference on Human factors in computing systems</i>. 1998 (“Abowd 5”). Truong, Khai N., and Gregory D. Abowd. “StuPad: Integrating student notes with class lectures.” <i>CHI'99 extended abstracts on Human factors in computing systems</i>. 1999 (“Truong”).



	da Graca Pimentel, Maria, et al. "Supporting educational activities through dynamic web interfaces." Interacting with computers 13.3 (2001): 353-374 ("Pimentel"). Brotherton, Jason Alan. Enriching everyday activities through the automated capture and access of live experiences. eClass: Building, observing and understanding the impact of capture and access in an educational domain. Georgia Institute of Technology, 2001 ("Brotherton 2"). WayBack Machine, eClass Homepage (Mar. 8, 2005), https://web.archive.org/web/20050308192544/http://www.cc.gatech.edu/fce/eclass/overview/index.html ("eClass Website 1"). WayBack Machine, eClass in the Media (Feb. 14, 2005), https://web.archive.org/web/20050214051501/http://www.cc.gatech.edu/fce/eclass/media/ ("eClass Website 2"). WayBack Machine, eClass Publications (Mar. 9, 2005), https://web.archive.org/web/20050309204400/http://www.cc.gatech.edu/fce/eclass/pubs/index.html ("eClass Website 3"). WayBack Machine, Student Assistant (Dec. 28, 2004), https://web.archive.org/web/20041228004210/http://www.cc.gatech.edu/fce/eclass/research/stuass.html ("eClass Website 4"). WayBack Machine, Student log-in (Mar. 8, 2004), https://web.archive.org/web/20040308013852/http://www.cc.gatech.edu/fce/eclass/research/stuass1.jpg ("eClass Website 5").
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Defendants further identify the additional products, systems or applications and additional supporting evidence for the respective product, system or application which are relevant to the issue of anticipation and/or obviousness of one or more of the Asserted Claims:

Table A-5: additional Prior Art Products, Systems or Applications and Supporting Evidence for the Respective Product, System or Application Pursuant to P.R. 3-3(a)	
Product / System / Applications / Entity	Supporting Evidence
iVAS	Daisuke Yamamoto et al., "iVAS: Web-based Video Annotation System and its Applications," 3rd International Semantic Web Conference (ISWC2004)

	Sarvanko J., "Face Sequence Detection for a Web-Based Annotation Application," University of Oulu, Department of Electrical and Information Engineering, 2010, Master's Thesis, 62 p.
eSports System ("eSports")	Gang Zhai et al., "eSports: Collaborative and Synchronous Video Annotation System in Grid Computing Environment," Proceedings of the Seventh IEEE International Symposium on Multimedia (ISM'05), March 2005
Digital Interactive Video Exploration and Reflection ("DIVER") Project	Roy Pea et al., "Video Collaboratories for Research and Education: An Analysis of Collaboration Design Patterns," IEEE Transactions on Learning Technologies Vol. 1, No. 4, October-December 2008. Roy Pea et al., "Cognitive technologies for establishing, sharing and comparing perspectives on video over computer networks," SAGE Publications 2008 Roy Pea et al., "The Diver Project: Interactive Digital Video Repurposing," IEEE Computer Society, January-March 2004 Roy Pea, "Chapter 55: Video-as-Data and Digital Video Manipulation Techniques for Transforming Learning Sciences Research, Education, and Other Cultural Practices," The International Handbook of Virtual Learning Environments, 1321-1393, Springer 2006
Cross Media Annotation System ("XMAS")	Beat Signer et al, "An Architecture for Open Cross-Media Annotation Services," Institute for Information Systems, ETH Zurich, CH-8092 Zurich, Switzerland An XMAS Tutorial, Updated: January 12, 2006 iCampus Cross Media Annotation System XMAS (v 2.0), April 2006
Microsoft's Distributed Tutored Video Instruction ("DTVI") System	Scott LeeTiernan et al, "Fostering Engagement in Asynchronous Learning Through Collaborative Multimedia Annotation," Microsoft Research, One Microsoft Way, Redmond, WA 98052 USA Randall B. Smith, "Experiments Comparing Face-to-Face with Virtual Collaborative Learning," Computer Support for Collaborative Learning 1999, pp. 558-566 JJ Cadiz et al., "Distance Learning Through Distributed Collaborative Video Viewing," Microsoft Research, One Microsoft Way, Redmond, WA 98052 USA, May 10, 2000
IBM MPEG-7 Annotation Tool ("VideoAnnEx")	Ching-Yung Lin et al., "VideoAnnEx: IBM MPEG-7 Annotation Tool for Multimedia Indexing and Concept Learning," IBM T.J. Watson Research Center, 19 Skyline Drive, Hawthorne, NY 10532



IBM Efficient Video Annotation (“EVA”) System	Timo Volkmer et al., “A Web-Based System for Collaborative Annotation of Large Image and Video Collections,” MULTIMEDIA ’05: Proceedings of the 13th annual ACM international conference on Multimedia, November 2005, pp. 892–901
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Although Defendants’ investigation is still ongoing, information available to date indicates that each product, system or application identified above was: (1) known, published, or used in the United States prior to the alleged invention of the claimed subject matter of the Asserted Claims; (2) published, in public use, and/or on sale in the United States more than one year before the filing date of the U.S. application for the Asserted Patent; and/or (3) invented by another who did not abandon, suppress, or conceal it prior to the alleged invention of the claimed subject matter of the Asserted Claims of the Asserted Patent. Information concerning the entities who knew of and/or used these systems, or who were involved in any sales or offers to sell these systems, can be found in the identified evidence describing these products, systems or applications. Additionally, because discovery has only just begun, Defendants reserve the right to rely on the testimony of witnesses knowledgeable about such products, systems or applications, as well as documents describing these products, systems or applications, including those that may be obtained through discovery in this case.

Each prior art evidence above describing or relating to a prior art product, system or application should be understood to discuss the product’s, system’s or application’s capabilities generally and to discuss specific implementation examples of specific installations of the particular product, system or application. To the extent the prior art evidence describes various implementations of the same underlying product, system or application, that underlying product, system or application is a single reference under pre-AIA 35 U.S.C. § 102(a). The prior art references are evidence of the capabilities of the prior art product, system or application, and each chart provided for a prior art product, system or application should be understood to incorporate

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by reference all printed publications describing or relating to that prior art product, system or application and the charts provided for those publications. In addition, each evidence itself also qualifies as prior art on separate grounds as a publication under pre-AIA 35 U.S.C. § 102(a). Even if the prior art references are not treated as a single prior art reference, at the very least it would have been obvious to combine the features described in those references, as described in more detail below.

Upon information and belief, each prior art product, system or application referenced above is described in the associated, charted prior art reference(s). As noted above, because discovery is ongoing, Defendants reserve the right to supplement their invalidity contentions with regard to product, system or application art that relies upon further investigation and/or third-party discovery that has yet to occur.

Defendants reserve the right to supplement these Initial Invalidity Contentions to assert additional grounds of invalidity based on pre-AIA 35 U.S.C. § 102(b), (f), and/or (g) in the event Defendants become aware of evidence sufficient to support such an assertion through discovery.

B. P.R. 3-3(b): “Whether each item of prior art anticipates each asserted claim or renders it obvious”

Defendants contend that each reference identified below, alone or combined with the knowledge of a person of ordinary skill in the art at the relevant time, renders the Asserted Claims invalid under pre-AIA 35 U.S.C. §§ 102 and/or 103. The Invalidity Charts attached hereto as Exhibits 1-14 specify, on a claim-by-claim basis, the disclosure in the prior art that anticipates and/or renders obvious each limitation of the Asserted Claims.

The accompanying Invalidity Charts are exemplary, and not exhaustive. Defendants have endeavored to identify relevant portions of the references. The references, however, may contain additional support for particular claim limitations. As such, the cited portions are only examples,

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and Defendants reserve the right to rely on uncited portions of the prior art references as additional evidence that the prior art discloses a claim limitation or the claimed subject matter as a whole.

Defendants' Initial Invalidity Contentions are not limited to the attached Invalidity Charts. Defendants may demonstrate the invalidity of the Asserted Claims by reference not only to prior art references, but to the person of ordinary skill in the art's pre-existing knowledge, skill, and creativity, with reference to the general state of the art, and with reference to the inventors' admissions concerning prior art, the state of the art, and non-inventive elements.

Plaintiff appears to contend in its Infringement Contentions that certain limitations of the Asserted Claims have a similar meaning or encompass similar feature(s) and/or functions as other limitations in different claims. Thus, to the extent any prior art reference cited by Defendants anticipate or render obvious a particular claim limitation, it likewise anticipates or renders obvious any other limitations that Plaintiff contends have similar meaning or encompass similar features or functions. Defendants reserve the right to contend that each of the anticipatory references renders the claims obvious either in view of the reference alone or in combination with other references. The identification of any patent or patent application should be deemed an identification of any counterpart patent or application; the identification of any article or publication should be deemed a disclosure of any substantially similar article if published in some other form, or of any patent or patent application corresponding to such article or publication; and the identification of any patent, patent application or article should be deemed an identification of any product described therein. Defendants also reserve the right to rely upon parent or ancestor patents or patent applications to which any of the patents or patent applications listed in Exhibits 1-14 claim priority to as continuation, divisional, or continuation-in-part applications.

[REDACTED]

To the extent a prior art reference is deemed not to anticipate or render obvious a claim as noted in the attached Invalidity Charts for failing to disclose one or more limitations of the Asserted Claims, that claim would nonetheless have been obvious to a person of ordinary skill in the art at the time of the invention over the reference itself (and given the knowledge and skill of one of ordinary skill in the art) or by the combination of the prior art reference with one or more other prior art references that disclose, teach, or suggest those claim limitations. In addition, where the Invalidity Charts do not cite an express teaching of a particular limitation, Defendants reserve the right to argue that such teaching is inherent in the reference.

i. Anticipation

Defendants identify below the prior art references that anticipate any claims of the Asserted Claims. Defendants contend that the references in the table below independently anticipate one or more claims of the Asserted Claims under pre-AIA 35 U.S.C. § 102, as set forth in the Invalidity Charts attached hereto. To the extent that Plaintiff contends that any of the anticipating references do not expressly disclose any limitation of the Asserted Claims, the prior art implicitly or inherently discloses such limitations as would be understood to a person of ordinary skill in the art at the time of the alleged invention. Defendants currently take no position as to whether the preamble of any Asserted Claim is limiting, and expressly reserves all rights to take any position with respect to such preambles for purpose of claim construction, invalidity, inequitable conduct, non-infringement, or otherwise.

Table B-1: Anticipation of the Asserted Claims Pursuant to P.R. 3-3(b)		
Ex. No.	Patent / Publication No. / Product Name	'286 Patent Claims Anticipated
1	MRAS	13, 14, 15, 18, 19, and 20
2	WebOrama	13, 14, 15, 18, 19, and 20
3	Vannotea	13, 14, 15, 18, 19, and 20
4	MediaMatrix	13, 14, 15, 18, 19, and 20
5	Classroom 2000 (eClass)	13, 14, 15, 18, 19, and 20

10	6,476,826 (“Plotkin”)	13, 14, 15, and 20
11	2005/0081159 (“Gupta”)	13, 14, 15, 18, 19, and 20
12	2005/0144305 (“Fegan”)	13, 14, 15, 18, 19, and 20
13	2005/0210145 (“Kim”)	13, 14, 15, 18, 19, and 20

ii. Obviousness

Each anticipatory prior art reference, either alone or in combination with other prior art, also renders the Asserted Claims obvious to a person of ordinary skill in the art. In particular, each anticipatory prior art reference on its own renders the Asserted Claims obvious and also may be combined with: (i) information known to a person skilled in the art at the time of the alleged invention; (ii) any of the other anticipatory prior art references; (iii) any statement in the intrinsic record of the '286 patent; and/or (iv) other prior art references identified in Section III.A, above. To the extent that Plaintiff contends that any of the anticipatory prior art fails to disclose explicitly or inherently one or more limitations of the Asserted Claims, Defendants reserve the right to argue that any difference between the reference and the corresponding Asserted Claims would have been obvious to a person of ordinary skill in the art even if it has not specifically denoted that the reference is to be combined with the knowledge of a person of ordinary skill in the art. Further, Defendants reserve the right to identify other prior art references that, when combined with anticipatory prior art, would render the Asserted Claims obvious.

The teachings of each of the primary prior art references in Exhibits 1-13 can be combined with other primary prior art references in Exhibits 1-13 and/or each prior art references in Exhibit 14 (Obviousness Chart), for at least the reasons noted in the Invalidity Charts, as well as those described below. Furthermore, in view of the state of the art at the time of the purported inventions claimed in the Asserted Claims, any elements not found in a particular reference would have been obvious to a person of ordinary skill in the art. Defendants' contentions that the references render the Asserted Claims obvious under pre-AIA 35 U.S.C. § 103 are in no way an admission or

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suggestion that each reference does not independently anticipate the Asserted Claims under pre-AIA 35 U.S.C. § 102. Defendants' obviousness contentions are raised in the alternative and should not be construed to suggest that any prior art reference included in a combination is not invalidating prior art on its own.

Defendants also rely upon these references (as well as the state of the art known to a person of ordinary skill in the art at the time, as evidenced at least partially by the references cited during prosecution of the '286 patent and related applications or patents) to provide examples of what a person of ordinary skill in the art would have known at that time, to provide examples of references a person of ordinary skill in the art would have combined to address the needs purportedly met by the '286 patent, and to provide evidence of such a motivation to combine. The specific modifications or combinations of references and related rationales provided with respect to obviousness under pre-AIA 35 U.S.C. § 103 are merely exemplary and are not intended to be exhaustive. Numerous additional modifications, reasons, and obviousness combinations of the references identified below are possible and apparent, and Defendants reserve the right to use any such combinations in this action.

Plaintiff has not yet taken a position regarding which limitations, if any, it contends are missing from the prior art references. Defendants contend that any claim limitation allegedly missing from one of the listed prior art references is disclosed in one or more of the other prior art references, as shown in the attached Invalidity Charts demonstrating obviousness of the Asserted Claims. Defendants therefore contend that a person of ordinary skill in the art would find the Asserted Claims an obvious modification and/or an obvious combination of two or more of the prior art references listed in these Initial Invalidity Contentions. To the extent Plaintiff contends that any of the prior art fails to disclose one or more limitations of the Asserted Claims, Defendants

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reserve the right to identify other prior art that would supply any such limitation(s) which, when combined with the other prior art and/or with the knowledge of a person of ordinary skill in the art at the relevant time, would render the claimed subject matter obvious.

The United States Supreme court clarified the standard for evaluating obviousness in *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). The Court emphasized that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* at 1739.

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. . . . [A] court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

Id. at 1740. Moreover, the Court elaborated that any reason to combine known elements disclosed by prior art patents or other references need not be explicitly discussed in the references themselves, “for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.* at 1741. The Court further observed:

When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under § 103.

Id. at 1742; *see also, e.g., Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1368 (Fed. Cir. 2006) (explaining that when the “combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter,

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smaller, more durable, or more efficient,” there exists a motivation to combine prior art references even where there is no explicit suggestion in the references themselves “[b]ecause the desire to enhance commercial opportunities by improving a product or process is universal--and even common-sensical”); *LeapFrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (applying *KSR* and holding that “one of ordinary skill in the art of children’s learning toys would have found it obvious to combine the Bevan device with the SSR to update it using modern electronic components in order to gain the commonly understood benefits of such adaptation, such as decreased size, increased reliability, simplified operation, and reduced cost”).

Although the applicable law does not require evidence of motivation to combine, motivation exists to combine one or more of the references disclosed herein with each other. *See, e.g.*, Exhibits 1-14. Beyond specific rationales and motivations discussed below and identified in the present charts, rationale and motivation to modify any particular reference or to combine any two or more of the identified references comes from: (a) the nature of the problem being solved; (b) the teachings of the prior art; (c) the knowledge of persons of ordinary skill in the art; (d) the fact that all of the references teach systems, apparatuses, and methods related to the subject matter and address the same technical issues of the patents-in-suit; and (e) one would be motivated by considerations of efficiency, effectiveness, convenience, cost-savings, and accessibility, to combine the various teachings. Additionally, common sense may be used in a combination to fulfill a limitation as long as there is a “reasoned explanation” for its use. *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1366 (Fed. Cir. 2016). Additionally, one would be motivated to address the alleged deficiencies or achieve the purported objectives identified in the Background of the Invention section of the ’286 patent.

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Each combination of familiar elements according to known methods is obvious because it yielded predictable results. And, in combination, each element would merely perform the same function as it would separately. The rationale to combine or modify prior art references is significantly stronger when references seek to solve similar problems, come from the same field, and correspond well. *In re Inland Steel Co.*, 265 F.3d 1354, 1362 (Fed. Cir. 2001). In addition, when a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, pre-AIA 35 U.S.C. § 103 bars its patentability.

As seen in Exhibits 1-14, numerous combinations of the identified references would have been naturally considered as part of the exercise of ordinary skill by one skilled in the art. For example, a person of ordinary skill in the art at the time of the invention would have sought to combine or modify one or more of the references listed in Section III.A, above, with the knowledge of persons of ordinary skill in the art and/or would have sought to combine or modify one or more of the references listed in section III.A, *supra*, with one or more other references listed in section III.A, *supra*. See, e.g., Exhibits 1-14.

In addition, it would have been obvious to try combining the prior art references identified above because there were only a finite number of predictable solutions and/or because known work in one field of endeavor prompted variations based on predictable design incentives and/or market forces either in the same field or a different one. The combination of the prior art references identified above also would have been obvious because the combination represents the known potential options with a reasonable expectation of success. Additionally, a person of ordinary skill in the art would have been motivated to combine the references identified above using: known methods to yield predictable results; known techniques in the same way; a simple substitution of

one known, equivalent element for another to obtain predictable results; and/or a teaching, suggestion, or motivation in the prior art generally.

The combinations identified in these Initial Invalidity Contentions would have been obvious for numerous reasons, such as, e.g., the references are in similar fields, the references seek to solve similar problems, the relevant technology is one which yields predictable results, and each element would perform the same function in the combination as it would separately.

1. Exemplary prior art combination

Defendants identify that the prior art references and/or combinations of prior art references listed in Section III.A, above, combined with the knowledge of a person of ordinary skill in the art at the time of the alleged invention of the '286 patent, render obvious the Asserted Claims. Defendants hereby identify the following exemplary combinations of prior art references that render obvious the Asserted Claims. The combinations specifically identified below are exemplary and in no way intended to be exhaustive. Numerous additional reasons and obviousness combinations of the references to the exemplary combinations identified below are possible and apparent, and Defendants reserve the right to use any such combinations in this action.

Table B-2: Exemplary Prior Art Combinations Pursuant to P.R. 3-3(b)		
Comb. No.	Primary Reference in view of Secondary Reference(s)	'286 Patent Claims Rendered Obvious
1	The MRAS System in view of Knowledge of POSITA, the Media Matrix System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
2	The MRAS System in view of Knowledge of POSITA, the Vannotea System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
3	The WebOrama System in view of Knowledge of POSITA, the MRAS System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20

4	The WebOrama System in view of Knowledge of POSITA, the Media Matrix System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
5	The WebOrama System in view of Knowledge of POSITA, the Vannotea System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
6	The WebOrama System in view of Knowledge of POSITA, the eClass System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
7	The Vannotea System in view of Knowledge of POSITA, the MRAS System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
8	The Vannotea System in view of Knowledge of POSITA, the WebOrama System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
9	The Vannotea System in view of Knowledge of POSITA, the eClass System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
10	The Media Matrix System in view of Knowledge of POSITA, the MRAS System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
11	The Media Matrix System in view of Knowledge of POSITA, the WebOrama System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
12	The Media Matrix System in view of Knowledge of POSITA, the eClass System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
13	The eClass System in view of Knowledge of POSITA, the MRAS System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
14	The eClass System in view of Knowledge of POSITA, the Media Matrix System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
15	The eClass System in view of Knowledge of POSITA, the Vannotea System, and/or the references cited in the	13, 14, 15, 18, 19, and 20

	Obviousness Chart (Ex. 14) (including the primary charted references)	
16	Denoue in view of Knowledge of POSITA, the Media Matrix System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
17	Denoue in view of Knowledge of POSITA, the Vannotea System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
18	Chakravarty in view of Knowledge of POSITA, the MRAS System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
19	Chadda in view of Knowledge of POSITA, the Media Matrix System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
20	Chadda in view of Knowledge of POSITA, the Vannotea System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
21	Miele in view of Knowledge of POSITA, the Media Matrix System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
22	Miele in view of Knowledge of POSITA, the Vannotea System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
23	Plotkin in view of Knowledge of POSITA, the MRAS System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
24	Plotkin in view of Knowledge of POSITA, the eClass System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
25	Gupta in view of Knowledge of POSITA, the Media Matrix System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
26	Gupta in view of Knowledge of POSITA, the Vannotea System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
27	Fegan in view of Knowledge of POSITA, the MRAS System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
28	Fegan in view of Knowledge of POSITA, the WebOrama System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
29	Fegan in view of Knowledge of POSITA, the eClass System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20

30	Kim in view of Knowledge of POSITA, the MRAS System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
31	Kim in view of Knowledge of POSITA, the WebOrama System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20
32	Kim in view of Knowledge of POSITA, the eClass System, and/or the references cited in the Obviousness Chart (Ex. 14) (including the primary charted references)	13, 14, 15, 18, 19, and 20

2. Motivation to combine

Defendants believe that no showing of a specific motivation to combine prior art is required to combine the references disclosed above and in the attached Invalidity Charts, as such combination of art would have no unexpected results, and at most would simply represent a known alternative to one of ordinary skill in the art. *See KSR*, 127 S. Ct. at 1739-40 (rejecting the Federal Circuit’s “rigid” application of the teaching, suggestion, or motivation to combine test, instead espousing an “expansive and flexible” approach). Indeed, the Supreme Court held that a person of ordinary skill in the art is “a person of ordinary creativity, not an automaton” and “in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *Id.* at 1742. In assessing the level of ordinary skill in the relevant art, the court may consider several factors including: (1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapid pace of innovation; (5) sophistication of the technology; and (6) educational level of active workers in the relevant field. *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007). A person of ordinary skill in the art relevant to the ’286 patent would generally have had a Bachelor’s degree in Electrical Engineering, Computer Engineering, or Computer Science (or the equivalent degree) plus approximately two years of work experience with technologies relating use of client-server

[REDACTED]

architecture for video content annotation, editing, and streaming. More education can supplement work experience and vice versa.

Nevertheless, in keeping with the Patent Rules, and in addition to the information contained in each of the attached Invalidity Charts, Defendants hereby identify additional motivation and reason to combine the cited art. Motivation exists to combine one or more of the prior art references included in these Initial Invalidity Contentions with each other. Generally, motivation to combine any of these references with others exists within the reference themselves, as well as within the knowledge of those of ordinary skill in the art at the relevant time. For example, these references identify and address the same technical issues and suggest very similar solutions to those issues in the field of using of client-server architecture for video content annotation, editing, and streaming.

Here, a person of ordinary skill in the art had reason to combine various features of the known client-server architecture and technology for video content annotation, editing, and streaming. All references refer to the same field of endeavor, particularly to methods and apparatuses relating to client-server architecture for video content annotation, editing, and streaming. At least the interrelated teachings of the prior art references identified herein would have motivated a person of ordinary skill in the art to combine the primary reference with one or more of the secondary references, as the teachings of the references identify the benefit of and needs for client-server architecture for video content annotation, editing, and streaming. A person of ordinary skill in the art would have expected the combinations to succeed because the features were well known and implemented in the art and because there are no fundamental incompatibilities or contradictory teachings that would preclude or complicate the combination.

[REDACTED]

Specifically, it would have been obvious to combine the disclosure of each primary reference with the teachings from any one or more of the corresponding secondary references, as identified in Combination Nos. 1-32 of Table B-2 above. Each identified reference is directed to the field of client-server architecture for video content annotation, editing, and streaming, and it would have been obvious to a person of ordinary skill in the art presented with the disclosure of the primary reference to turn to the teachings of any one or more of the corresponding secondary references, as identified in Combination Nos. 1-32 of Table B-2 above to result in operation that would have been predictable in nature and would improve the client-server architecture for video content annotation, editing, and streaming.

Each reference cited in the Invalidity Charts (Exs. 1-14) identifies and addresses the same technical issues and suggests very similar solutions to those issues in the field of client-server architecture for video content annotation, editing, and streaming. They all teach similar client-server architecture for video content annotation, editing, and streaming systems and/or methods, including a user interface that enables users to add and to edit annotations to the video content and view the annotated video. Specifically:

1) The MRAS System, and the supporting evidence describing the functionalities of the MRAS System, explicitly describes a client-server architecture-based video annotation system. The MRAS System provides an interface which permits users to add, delete, edit and associate annotations with different segments of the underlying media content. Viewers can select annotations which will take them to part of the media content which contextualizes the annotation.

2) The WebOrama System, and the supporting evidence describing the functionalities of the WebOrama System, explicitly describes an entirely web-based multimedia annotation system. The system is described as a distributed system that uses the client-server model that

[REDACTED]

provides an application tier annotation interface which is used for creating, editing, managing and sharing multimedia annotations. When an annotation is selected, the system makes a request to the media server using the HTTP protocol or streaming multimedia protocols to fetch and display the content of the annotation.

3) The Vannotea System, and the supporting evidence describing the functionalities of the Vannotea System, explicitly describes an annotation system comprising an annotation server for handling the server-side annotation creation, editing, deletion and attachment to videos and a client-side application for interfacing the annotation server. Specifically, the system uses a sidebar plug-in for Internet browsers to annotate media. Double-clicking an annotation jumps playback frame of the video to the frame that shows the context of the annotation.

4) The Media Matrix System, and the supporting evidence describing the functionalities of the Media Matrix System, explicitly describes an online, server side tool that helps users to find, segment, annotate, organize, and publish streaming media found in digital libraries on the Internet. The Media Matrix System includes an editor which allows users to add annotations to media, edit annotations, and save annotations to a server. Once published, users can manipulate to play a specific portion of the media based on selection by the users.

5) The Classroom 2000 (eClass) System, and the supporting evidence describing the functionalities of the eClass System, explicitly describes a collaborative annotation system comprising a centralized server and web-based interfaces for users to access lectures, view and annotate lectures, and add or modify annotated information associated with a lecture. Selecting an added annotation would launch an audio or video player at the point in the lecture contextualizing the annotation.

[REDACTED]

6) Denoue explicitly discloses a system for viewing collaborative indexes of annotations of multimedia or video streams and associating portions of the multimedia or video stream with the annotations. Denoue describes the system as a client-server architecture in which the users interact with the system via web-based graphical user interfaces. Denoue discloses that selecting an annotation will permit the user to view or otherwise experience the portion of the multimedia or video stream associated with the annotation.

7) Chakravarty explicitly discloses a system for storyboarding digital assets, e.g., a system that allows for associating key frames to different clips of a video. Chkravarty also describes an client-server architecture in which the system provides users with graphical user interface for managing and modifying the storyboard over the Internet.

8) Chadda explicitly discloses an annotation system for multimedia streams which uses web browser plug-in modules to retrieve multimedia streams distributed over the Internet and annotate multimedia streams. The system includes a viewer which permits users to select a content label of interest and to skip forward or backward to a predetermined locations in the video stream.

9) Miele explicitly discloses a system where a user can request a video file and enter textual annotations, and the system stores the annotation information and displays the annotation text along with relevant portion of the video file. Miele describes that the user operates the system via remote client computer programmed to run a web browser extension for requesting video files, annotating, and playing back video files. The system displays the video file portion specified by the associated annotation.

10) Plotkin explicitly discloses a system for video editing and meta-tagging. The system includes a central software application which is accessed through a graphical user interface

[REDACTED]

at client-side video editing workstation. Plotkin describes that the meta tags can be modified, replaced, and/or deleted.

11) Gupta explicitly discloses a client-server architecture for transmitting media content and annotations corresponding to the media content from a server to a client. Gupta further describes creating, viewing, and temporally positioning annotations for media content. Gupta further describes a user may edit the annotations and select an annotation to seek/navigate to the temporal position of the media content corresponding to the annotation.

12) Fegan explicitly discloses a comprehensive server-side system for editing, annotating, managing and presenting multimedia events. Clients access Fegan's system over the Internet to generate time-based index points for virtual segmentation of a multimedia file to create clips of specified portions and stream a presentation of selected portions.

13) Kim explicitly discloses a multimedia bookmark bulletin board service system for making and sharing multimedia bookmarks in a client-server architecture. Kim describes that an administrator client can create and edit multimedia bookmarks. Kim further describes multimedia bookmarks are used to select where to begin streaming video by selecting the play control button and the user can watch the video from the bookmarked position.

In short, the combination of the disclosure of each primary reference with the teachings from any one or more of the corresponding secondary references, as identified in Combination Nos. 1-32 of Table B-2, would be no more than applying a known technique to a known system to yield predictable results. As one example, a POSITA would have been motivated to implement teachings from any of the systems and references listed in the Obviousness Chart (Ex. 14)—including the primary charted references—into any of the primary charted references, such as teachings relating to implementing an “edit” option on a client interface to allow a user at the client

[REDACTED]

to send annotation or bookmark (cue point) editing commands to modify existing annotations or bookmarks in order to allow users, including ones at the client side of the client-server arrangement, to modify existing annotations or bookmarks (cue points) to, for example, make the beginning and ending times more precise or change the title or description of the bookmark or annotation. A POSITA would have appreciated that providing remote access to the editing capability would have provided system users with an increased level of access without requiring them to be physically present at the server (*e.g.*, an administrator would be able to edit annotations from anywhere in the world, not only at a single centralized server). A POSITA would have had a reasonable expectation of success with such combinations because: (i) the identified prior art references are each drawn to similar systems of adding bookmarks or annotations to portions of video; and (ii) it would have been a simple matter of programming the web host or server to accept commands not just from an interface on the server, but from the same or similar interface on a client computer. Thus, upon a command from the client computer (*e.g.*, selecting the “edit” option), the web host or server would allow client computer to enter an “editing mode” and the web host or server would receive commands from the client computer and edit existing annotations and bookmarks on the server side.

As another example, a POSITA would have been motivated to implement teachings from any of the systems and references listed in the Obviousness Chart (Ex. 14)—including the primary charted references—into any of the primary charted references, such as teachings of the use of a public network (*e.g.* the public Internet) for client-server architecture to provide bookmarking and/or annotations for videos. A POSITA would have recognized that implementing any client-server video bookmarking and/or annotation system on a public network such as the Internet would have beneficially allowed more users in a broader public network to participate in the system to

[REDACTED]

add, modify, and playback video bookmarks. A POSITA would have had a reasonable expectation of success with such a combination because: (i) the identified prior art references are each drawn to similar systems of adding bookmarks or annotations to portions of video; and (ii) it would have been a simple and straightforward modification of substituting one network type with another (*i.e.*, substituting a private network with a public network) to obtain predictable results (*i.e.*, it would not affect the function of the client-server system). It would have at least been “obvious to try” a public network because it involved choosing from a finite number of identified, predictable solutions with a reasonable expectation of success (*i.e.*, the only types of networks to choose from are private or public). A POSITA would also have recognized the difficulties and costs associated with creating and maintaining numerous private networks with private servers and would have recognized the efficiencies and cost-savings in placing such private client-server network systems on a public network (Internet) with a single centralized server.

Accordingly, for at least the foregoing reasons, it would have been obvious to combine the teachings of each primary reference with the teachings from any one or more of the corresponding secondary references, as identified in Combination Nos. 1-32 of Table B-2, to render obvious the Asserted Claims.

Additionally, each Invalidity Chart details exemplary combinations of each primary reference and specific secondary references that render obvious specific claim(s) and/or claim limitation(s) of the '286 patent, and explains why a person of ordinary skill in the art would have been motivated to combine specific references. Thus, all Asserted Claims would have been obvious and invalid at least in view of the combinations of the references specifically identified in Exhibits 1-14.



3. Objective indicia of non-obviousness

Defendants are not aware of, and Plaintiff has not identified, any objective indicia or secondary considerations to support any allegation of non-obviousness as to the Asserted Claims. Indeed, Plaintiff's failure to successfully commercialize its purported invention as well as the variety of prior art in the same field of endeavor supports a finding of obviousness.

C. P.R. 3-3(c): "A chart identifying where specifically in each alleged item of prior art each element of each asserted claim is found"

The Invalidity Charts attached hereto as Exhibits 1-14 identify where specifically in each alleged item of prior art each element of each Asserted Claim is found, either expressly or inherently, or in combination with other references. The accompanying Invalidity Charts are exemplary and are not exhaustive. They list specific examples where prior art references disclose, either expressly or inherently, each limitation of the Asserted Claims and/or examples of disclosures in light of which a person of ordinary skill in the art at the time of the alleged invention would have considered each limitation, and therefore the claim as a whole, obvious. Defendants cite representative portions of identified references, even where a reference may contain additional support for a particular claim element.

Defendants have endeavored to identify explanatory portions of the reference. The references, however, may contain other or additional support for particular claim limitations. As such, the cited portions are only examples, and Defendants reserve the right to rely on uncited portions of the prior art references as additional evidence that the prior art discloses a claim limitation or the claimed subject matter as a whole. Furthermore, where Defendants cite to a particular figure in a reference, the citation should be understood to encompass the caption and description of the figure and any text relating to the figure. Similarly, where Defendants cite to

[REDACTED]

particular text referring to a figure, the citation should be understood to include the corresponding figure as well.

D. P.R. 3-3(d): “Any grounds of invalidity based on indefiniteness under 35 U.S.C. § 112(2) or enablement or written description under 35 U.S.C. § 112(1) of any of the asserted claims

All Asserted Claims are invalid under pre-AIA 35 U.S.C. § 112, first paragraph, for failure to comply with the enablement and/or written description requirements. Further, all Asserted Claims are invalid under pre-AIA 35 U.S.C. § 112, second paragraph, for failure to particularly point out and distinctly claim the subject matter which the applicant regards as his alleged invention.

As an initial matter, with respect to how to practice the alleged inventions of the Asserted Claims, the specification does not provide any substantial disclosure beyond high-level block diagrams and narrative descriptions of the function to be achieved. However, based on its Infringement Contentions, Plaintiff appears to construe the Asserted Claims with a scope far broader than what is disclosed in the specification. Thus, under Plaintiff’s view as to the scope of the Asserted Claims, they are invalid under pre-AIA 35 U.S.C. § 112, first paragraph, because the specification fails to either describe or enable the full scope of the claims.

The Asserted Claims suffer from the additional deficiencies noted below. The following is provided to apprise Plaintiff as to Defendants’ contentions of invalidity under pre-AIA 35 U.S.C. § 112, at least to the extent Plaintiff is construing the terms in an overly broad manner that is not supported by the specification.

The following terms are limitations in the Asserted Claims that do not meet at least one of the requirements under pre-AIA 35 U.S.C. § 112.

- “receiving a set of video information . . . a portion of the video information . . .”; “receiving a set of cue point information . . . modifying a portion of the cue point information . . .” (Claim 13)

[REDACTED]

It is unclear what is meant by “a set” of video or cue point information and the specification for the ’286 patent does not clearly define or explain the term “a set” of video or cue point information. To the extent “a set” of video or cue point information means more than one¹ video or cue point information, the claim terms “*the* video information” and “*the* cue point information” are unclear as to which video information or cue point information is being referred to, lack proper antecedent basis and render the claim indefinite.

- “one of the video files . . .” (Claim 13)

Claim 13 does not recite any “video files” prior to the recitation of “one of *the* video files” and lacks proper antecedent basis for “*the* video files.” This lack of proper antecedent basis makes claim 13 unclear as to whether the video needs to be in the form of “files” or not, rendering claim 13 indefinite.

- “one of the cue points corresponding to a portion of the video information . . .” (Claim 13)

Claim 13 does not recite any “cue points” prior to the recitation of “one of *the* cue points” and lacks proper antecedent basis for “*the* cue points.” This lack of proper antecedent basis makes claim 13 unclear as to whether the claim requires cue point information or “cue points,” rendering claim 13 indefinite.

- “remote client terminal” (Claims 13, 18, 19, 20)

The term “remote” renders these claims indefinite as: (i) there is no reference baseline against which the subject “remote client terminal” is compared for “remote”-ness; and (ii) there is

¹ Ordinary dictionaries define a “set” as “a *number of things* of the same kind that belong or are used together” (Merriam-Webster Online Dictionary, https://www.merriam-webster.com/dictionary/set?utm_campaign=sd&utm_medium=serp&utm_source=jsonld) or “a *group of* similar things that belong together in some way” (Cambridge Online Dictionary, https://dictionary.cambridge.org/dictionary/english/set#google_vignette). Technical dictionaries define a “set” as “In printing and display, a *group of* related characters, such as a character set” (Microsoft Computer Dictionary, 5th Edition, Copyright 2002).

[REDACTED]

no metric for assessing “remote”-ness. This claim term, when read in light of the specification and prosecution history, and Plaintiff’s Infringement Contentions, fails to inform, with reasonable certainty, one or ordinary skill in the art about the scope of the invention and therefore renders these claims indefinite.

- “server side of the public network”; “client side of the public network” (Claim 13)

It is unclear what is meant by a “server side” or a “client side” of a public network. Neither of these terms appears anywhere in the ’286 patent specification other than the claims themselves and therefore are not adequately supported. Particularly, the boundary within the public network (or even a private network) as to where the “server side” is or what constitutes the “server side” as compared to the “client side” is unclear (or can be blurred in certain scenarios, e.g., because a client of a server can also be a server to another client or because a client can “remote” into a server). This claim term, when read in light of the specification and prosecution history, and Plaintiff’s Infringement Contentions, fails to inform, with reasonable certainty, one or ordinary skill in the art about the scope of the invention and therefore renders Claim 13 indefinite.

- “receiving a set of video information at the video editing environment using the computer system”; “receiving a set of cue point information at the video editing environment using the computer system” (Claim 13)

It is unclear what is meant by receiving video information or cue point information “at” the video editing environment. It is unclear as to what the functionality or the purpose of the video editing environment is with respect to the receiving steps. This claim term, when read in light of the specification and prosecution history, and Plaintiff’s Infringement Contentions, fails to inform, with reasonable certainty, one or ordinary skill in the art about the scope of the invention and therefore renders Claim 13 indefinite.

- “at least one of creating, modifying, deleting, or interpreting at least a portion of the set of cue point information . . .” (Claim 14)

[REDACTED]

It is unclear what is meant by “interpreting” at least a portion of the set of cue point information. Though the specification for the ’286 patent describes “cue point information,” it does not clearly define or explain what is meant by *interpreting* a cue point information. This claim term, when read in light of the specification and prosecution history, and Plaintiff’s Infringement Contentions, fails to inform, with reasonable certainty, one of ordinary skill in the art about the scope of the invention and it is therefore indefinite.

- “edit mode entry signal” (Claim 15)

The term “edit mode entry signal” or even an “entry signal” does not appear anywhere in the ’286 patent specification other than the claims themselves. The ’286 patent does not explain what “edit mode entry signal” is, how such signal is generated, and what such signal entails. As such, one reasonably skilled in the art would be unable to understand the scope of the invention, including this claim limitation, rendering claim 15 indefinite.

Further, without support in the specification, the written description does not clearly allow persons of ordinary skill in the art to recognize that the alleged inventor invented what is claimed. Thus claim 15 is invalid for failing to meet the written description requirement.

E. INVALIDITY BASED ON UNPATENTABLE SUBJECT MATTER UNDER 35 U.S.C. § 101

Pursuant to the Court’s Standing Order Regarding Subject Matter Eligibility Contentions, Defendants provide their contentions that all Asserted Claims are invalid as being directed to a patent-ineligible abstract idea without an inventive concept that would transform the claim into patent-eligible subject matter, in contravention of the requirements of 35 U.S.C. § 101. *See generally, Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014). Defendants incorporate by reference all subject matter ineligibility argument made in Defendants’ Motion to Dismiss Plaintiff WellcomeMat, LLC’s Amended Complaint Pursuant to Fed. R. Civ. P. 12(b)(6) for Failure to State

a Claim (2:23-cv-483-JRG-RSP, D.I. 29) and Defendants' Reply Brief in Support of Their Motion to Dismiss Plaintiff WellcomeMat, LLC's Amended Complaint Pursuant to Fed. R. Civ. P. 12(b)(6) for Failure to State a Claim (2:23-cv-483-JRG-RSP, D.I. 33).

i. A chart identifying each exception to eligibility (e.g., abstract idea, law of nature, and natural phenomenon) to which each Challenged Claim is directed and the factual and legal basis therefor

Patent	Claims	Exception to Eligibility	Factual and Legal Basis	Representative Claims
'286 patent	13	Abstract Idea	Defendants incorporate by reference the below discussion concerning 35 U.S.C. § 101	
'286 patent	14	Abstract Idea	Defendants incorporate by reference the below discussion concerning 35 U.S.C. § 101	13 ²
'286 patent	15	Abstract Idea	Defendants incorporate by reference the below discussion concerning 35 U.S.C. § 101	13 ³
'286 patent	18	Abstract Idea	Defendants incorporate by reference the below discussion concerning 35 U.S.C. § 101	13 ⁴
'286 patent	19	Abstract Idea	Defendants incorporate by reference the below discussion concerning 35 U.S.C. § 101	13 ⁵

² Claim 14 depends on Claim 13. The additional limitations from Claim 14, which comprises, *e.g.*, “providing a cue point editing mode . . . to perform at least one of creating, modifying, deleting, or interpreting at least a portion of the set of cue point information . . .,” do not make Claim 14 patent eligible under 35 U.S.C. § 101 as these are no more than conventional computer structures or routine data manipulation steps. Therefore, claim 13 can be used as representative of both claims for purposes of these contentions, unless where otherwise noted.

³ Claim 15 depends on Claim 14, which in turn depends on claim 13. The additional limitations from Claim 15, which comprises, *e.g.*, “receiving an edit mode entry signal . . . and switching the video editing environment to the cue point editing mode . . .,” do not make Claim 15 patent eligible under 35 U.S.C. § 101 as these are no more than conventional computer structures or routine data manipulation steps. Therefore, claim 13 can be used as representative of both claims for purposes of these contentions, unless where otherwise noted.

⁴ Claim 18 depends on Claim 13. The additional limitations from Claim 18, which comprises, *e.g.*, “receiving . . . authenticating information . . .,” do not make Claim 18 patent eligible under 35 U.S.C. § 101 as these are no more than conventional computer structures or routine data manipulation steps. Therefore, claim 13 can be used as representative of both claims for purposes of these contentions, unless where otherwise noted.

⁵ Claim 19 depends on Claim 18, which in turn depends on claim 13. The additional limitations

'286 patent	20	Abstract Idea	Defendants incorporate by reference the below discussion concerning 35 U.S.C. § 101	13 ⁶
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1. *Alice* step one: the Challenged claims are directed to an abstract idea

The first step of *Alice* focuses on determining the abstract idea at the “heart” of the claims. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714 (Fed. Cir. 2014). The purported genesis of WellcomeMat’s invention was a need for a “video chaptering” system for real estate videos that “relies on cue points” and “enables users to find, watch, and share desired portions of the video” as well as “modify cue points remotely.” *See* No. 2:23-cv-483-JRG-RSP, Dkt. No. 25, ¶¶44; ¶¶40-60.

Claim 13 of the '286 patent generally relates to receiving a video (“receiving a set of video information”), chaptering the video (“receiving a set of cue point information”), receiving a selection of a video chapter marker (“receiving a cue point selection . . . corresponding to a portion of the video information”), and streaming the corresponding portion of the video (“streaming the portion of the video information”). The claim also includes receiving an instruction to edit a video chapter marker (“receiving a cue point editing command”) and then modifying the video chapter marker (“modifying a portion of the cue point information . . . according to the cue point editing

from Claim 19, which comprises, *e.g.*, “denying or allowing access . . . based at least in part on the access authority . . .,” do not make Claim 19 patent eligible under 35 U.S.C. § 101 as these are no more than conventional computer structures or routine data manipulation steps. Therefore, claim 13 can be used as representative of both claims for purposes of these contentions, unless where otherwise noted.

⁶ Claim 20 depends on Claim 13. The additional limitations from Claim 20, which comprises, *e.g.*, “the server video data is streamed progressively . . . allowing the video player to begin displaying streamed server video data while remaining server video data continues to be streamed,” do not make Claim 20 patent eligible under 35 U.S.C. § 101 as these are no more than conventional computer structures or routine data manipulation steps. Therefore, claim 13 can be used as representative of both claims for purposes of these contentions, unless where otherwise noted.

command”).

It is not an oversimplification to state that the claim 13 of the '286 patent is directed to the abstract idea of receiving and modifying chapter markers, as all other claim limitations merely relate to conventional computer structures and their expected functionalities.⁷ Dependent claims 14, 15, 18, 19 and 20 similarly recite further conventional computer structures or routine data manipulation steps such as storing data, authenticating users, receiving and displaying comments, and communicating with other devices, for example:

- Claims 14 and 15 recite different routine data manipulation steps of “modifying” the cue point information;
- Claims 18 and 19 recite routine authentication steps;
- Claim 20 recites routine streaming of video data.

See, e.g., the '286 patent at 54:18-58:5.

The specification further confirms that the '286 patent is directed to the abstract idea of receiving and modifying chapter markers. *See, e.g., id.*, 2:51-65 (“A first set of embodiments . . . comprises a cue point handler configured to execute at least one of creating, modifying, deleting, or interpreting at least a portion of the set of cue point information.”); 3:33-47 (“A second set of embodiments provides a method for handling video cue points . . . [that] receives over the network, using the computer system, a set of cue point information; and updates a set of cue point associations[.]”); 3:48-51 (“[T]he method further provides a cue point editing mode configured to perform at least one of creating, modifying, deleting, or interpreting at least a portion of the set of cue point information.”); 4:11-30 (“A third set of embodiments provides a method for handling video cue points . . . [that] receives, using the computer system, server cue point information from

⁷ The independent claims recite conventional computer structures such as a “computer system,” “processor,” “computer-readable medium,” “server,” “terminal,” “module,” and “network” and routine computer functions such as “providing,” “receiving,” “modifying,” and “streaming” data.

[REDACTED]

a set of stored cue point information[.]”); 4:60-5:7 (“[T]he method further accesses a cue point editing mode configured to perform at least one of creating, modifying, deleting, or interpreting at least a portion of the set of cue point information[.]”).

WellcomeMat acknowledges in its Amended Complaint that its invention was “methods and systems for handling *video chaptering that relies on cue points*” which allows users to “*modify* cue points remotely.” *See, e.g.*, No. 2:23-cv-483-JRG-RSP, Dkt. No. 25, ¶44 (emphasis added). Indeed, the Amended Complaint repeatedly recites that the invention of the ’286 patent is “video chaptering.” *See id.*, ¶3 (“the ’286 patent claims methods and systems for handling video chaptering”); ¶6 (accusing “video chaptering” of infringement); ¶44; ¶45 (“the client-side of video chaptering as depicted in the patent”); ¶46 (“WellcomeMat’s video chaptering invention”); ¶¶47-49; ¶57; ¶61 (“Once WellcomeMat invented its method of video chaptering, Sterner, DiGiulio, and Zainy knew that they had to protect it.”). Such statements reinforce the abstract idea proposed here and confirm that the ’286 patent claims are indeed *directed to* this abstract idea.

Courts have found similar abstract ideas invalid under § 101. In *MG Freesites Ltd v. Scorpcast LLC*, the Court analyzed claim 20 of U.S. Patent No. 9,965,780 (“the ’780 patent”) and explicitly held that the concept of “denoting where certain content is found inside a video” is no different than placing a bookmark in a book and therefore a system that “enables the user to quickly navigate to specific portions of the video content” is directed to an abstract idea. 651 F. Supp. 3d 744, 752-53 (D. Del. 2023) (citations and alterations omitted). The Court further found that “[b]ookmarking information for another to find, such as annotating a particular passage of a book, is longstanding conduct that existed well before the advent of computers and the Internet” and thus patent claims directed to this concept improperly claim an abstract idea. *Id.* at 753. The WellcomeMat claims are no different as they are similarly directed to the abstract idea of placing

chapter markers in a video (*i.e.*, bookmarking a video) to enable users to quickly navigate within the video:

Claim 13 of the '286 Patent	Claim 20 of the '780 Patent
<i>receiving a set of video information</i> at the video editing environment using the computer system;	<i>receive</i> , over the network using the network interface, <i>a first video</i> ;
<i>receiving a set of cue point information</i> at the video editing environment using the computer system;	<i>receive</i> . . . from the first user device <i>an association of a first image and/or a first text with a first start position of the first video</i> ;
<i>receiving a cue point selection</i> over the network from the remote client terminal identifying one of the cue points corresponding to a portion of the video information of one of the video files; and <i>streaming the portion of the video information to the client terminal over the public network in response to receiving the cue point selection</i> .	<i>enable a corresponding navigation event to occur at least partly in response to a user selecting</i> : <i>the first image and/or the first text</i> during a playback of the first video, wherein the first image and/or the first text is presented in or adjacent to the playback area.

The PTAB has also recognized the similarity of the WellcomeMat '286 patent and the '780 patent. In IPR2020-01697, the PTAB invalidated all challenged claims of the '780 Patent based on U.S. Patent Publication No. 2007/0263984, which shares the same specification as the '286 patent. *See* IPR2020-01697, Paper 38 (Apr. 15, 2022).

Further, in *Intellectual Ventures I LLC v. Erie Indem. Co.*, the Federal Circuit determined that the at-issue invention was directed to the abstract idea of “creating an index and using that index to search for and retrieve data” and “locating information in a database and . . . using an index that includes tags and metafiles to locate the desired information.” 850 F.3d 1315, 1327 (Fed. Cir. 2017). The Federal Circuit found:

This type of activity, *i.e.*, *organizing and accessing records through the creation of an index-searchable database*, includes longstanding conduct that existed well before the advent of computers and the Internet. *For example, a hardcopy-based classification system (such as library-indexing system) employs a similar concept* as the one recited by the '434 patent. There, classifiers organize and cross-reference information and

[REDACTED]

resources (such as books, magazines, or the like) by certain identifiable tags, e.g., title, author, subject. Here, tags are similarly used to identify, organize, and locate the desired resource.

Id. (emphasis added).

The claims in the '286 patent are similarly abstract: placing chapter markers in a video that can be used to access a portion of the video is analogous to the ineligible abstract idea in *Intellectual Ventures I* of creating tags or an index that can be used to identify and locate a specific portion of data. Several courts have noted that claims directed to locating a desired resource using a bookmark or tag are abstract as they are directed to a type of activity that has existed well before computers and the Internet. *See, e.g., Netflix, Inc. v. Rovi Corp.*, 114 F. Supp. 3d 927, 948 (N.D. Cal. 2015) (finding “claims are directed to the abstract idea of bookmarking media files across devices, despite the presence of a server and a client”); *TLI Commc’ns LLC v. AV Auto., L.L.C. (In re TLI Commc’ns LLC Patent Litig.)*, 823 F.3d 607, 613 (Fed. Cir. 2016) (“attaching classification data, such as dates and times, to images for the purpose of storing those images in an organized manner” is an abstract idea); *VideoShare, LLC v. Google, Inc.*, No. 1:13-cv-00990-GMS, 2016 WL 4137524, at *8 (D. Del. Aug. 2, 2016), *aff’d without opinion*, 695 Fed. App’x. 577 (Fed. Cir. 2017) (“attaching an identification tag . . . for the purpose of identifying the stored streaming video file is also a basic [patent-ineligible] concept”).

The only difference between the WellcomeMat claims and those in *Scorpcast* and *Intellectual Ventures I* is that users here can also “modify” a chapter marker—but that cannot save these claims from abstractness as merely manipulating data is itself an abstract idea. *See, e.g., Specialized Monitoring Sols., LLC v. ADT LLC*, 367 F. Supp. 3d 575, 586-87 (E.D. Tex. 2019) (collecting cases where the Federal Circuit has observed that claims to computerized gathering, manipulating, and displaying of data are directed to abstract ideas); *see also, Tech. in Ariscale*,

[REDACTED]

LLC v. Razer USA, Ltd., 2023 U.S. Dist. LEXIS 210623 at *10 (C.D. Cal. Nov. 27, 2023) (“Sending, receiving, and manipulating data are likewise abstract ideas.”); *Management Sci. Assocs. v. Datavant, Inc.*, 510 F. Supp. 3d 238, 245 (D. Del. 2020) (finding claims directed to the abstract idea of “collecting, labeling, and manipulating data” do not contain any inventive concept); *DigiMedia Tech, LLC v. ViacomCBS Inc.*, 592 F. Supp. 3d 291, 301 (S.D.N.Y. 2022) (“Manipulating data and displaying it to a user [is] an abstract idea.”). Thus, the ’286 patent claims, which at best recite **two abstract ideas** (e.g., video chaptering and manipulating data), are similarly ineligible. See *NexusCard, Inc. v. Kroger Co.*, 173 F. Supp. 3d 462, 467 (E.D. Tex. 2016) (“[D]escribing two abstract ideas in connection with each other . . . does not cause either abstract idea to then become a concrete thing.”).

Recently, in *AI Visualize, Inc. v. Nuance Communications, Inc.*, 2022-2109, 2024 WL 1449801 (Fed. Cir. Apr. 4, 2024), the Federal Circuit found claims reciting “functionally-oriented steps of: *storing* data (VVD) on a server, *accepting* user requests to view a portion of that data (virtual views), *checking* for the location of all data needed for the virtual view, ‘*creating*’ image frames from any non-locally-stored virtual view data, *transmitting* all non-locally-stored image frames to the user, *compiling* all image frames, and sequentially displaying the image frames to the user” are essentially directed to the abstract idea of “converting data and using computers to collect, manipulate, and display the data.” 2024 WL 1339801 at *4 (emphasis in original).

The claims of the ’286 patent are no different. In particular, claim 13 also recites manipulating/converting data (e.g., editing cue point information) and displaying data (e.g., streaming portion in response to selected cue point) and are claimed in the form of “functionally-oriented steps” of receiving requests for data, transmitting data, and displaying data.

Importantly, “with the exception of generic computer-implemented steps, there is nothing

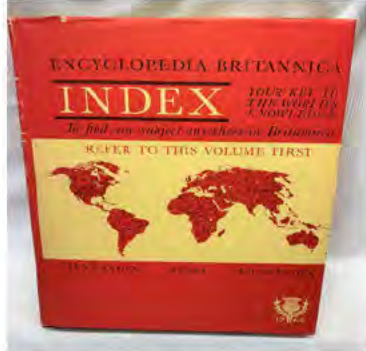
[REDACTED]

in the claims that foreclose them from being performed by a human, mentally or with pen and paper.” *Intellectual Ventures I*, 838 F.3d at 1318 (citation omitted). For example, the recited abstract idea is akin to adding an errata sheet to a book, which humans have performed long before the filing of the ’286 patent.⁸ As another example, the recited abstract idea is akin to a librarian altering an index listing the contents of a set of VHS tapes in response to a communication from the publisher. Below is an exemplary element-by-element comparison showing that every claim element could have been performed by a human, mentally or with pen and paper:

Claim 13 of the ’286 Patent	Human Pen and Paper Analogy
A method for handling video cue points, the method comprising: providing a computer system having at least one computer-readable medium comprising a video editing environment, and being disposed at a server side of a public network;	A librarian is sitting at a library’s reference desk with pen and paper and is able to edit books, as shown below (the library is public and the librarian serves people at the library and is thus at the “server side of a public network”).
receiving a set of video information at the video editing environment using the computer system;	The librarian receives a set of books at the reference desk. For example, the librarian receives a set of the Encyclopedia Britannica.
receiving a set of cue point information at the video editing environment using the computer system;	The librarian receives an index for the set of books at the reference desk. For example, in a multi-volume set of books such as the Encyclopedia Britannica, an additional volume is included that contains an index for the other volumes.

⁸ As another example germane to patent litigation, the abstract idea of the ’286 patent claims is no different than issuing a “Certificate of Correction” to correct a patent.



	
receiving a cue point editing command over the network from a remote client terminal disposed at a client side of the public network using the computer system;	The librarian receives a call from a publisher of the set of books instructing the librarian to edit the book index (the publisher is remote from the librarian and is thus at the “client side of the public network”). For example, the publisher of the Encyclopedia Britannica calls the librarian and provides an instruction to edit the index volume to correct the starting page number for the subject “Abstract Art.”
modifying a portion of the cue point information at the server side of the public network according to the cue point editing command received over the public network from the client terminal;	The librarian creates an errata sheet using pen and paper in accordance with the publisher’s instruction and modifies the book index by inserting the errata sheet. The librarian does this at the library (the “server side” of the public network).
receiving a cue point selection over the network from the remote client terminal identifying one of the cue points corresponding to a portion of the video information of one of the video files; and	The librarian receives a call from the publisher to look up information in the book index (e.g., to ensure the index has been modified with the errata sheet). For example, the publisher asks the librarian to find “Abstract Art” in the Encyclopedia using the index.
streaming the portion of the video information to the client terminal over the public network in response to receiving the cue point selection.	The librarian looks up the information indicated by the book index and relays it to the book publisher. For example, the librarian finds “Abstract Art” in the Encyclopedia using the index and conveys the information to the publisher.

This demonstrates that all steps recited in claim 13 are well-known and abstract, and that this claim is directed to nothing more than conventional activities capable of being done by hand with pen and paper—issuing and using an errata sheet to update an index—but shifted here to the context of online video streaming.

██████████ the '286 patent does not describe any technological improvement to computers since the claims recite only generic functional language without providing sufficient implementation-related details as to *how* those functions are performed. *See, e.g., '286 patent, claim 13* (“providing a computer system . . . receiving a set of video information . . . receiving a set of cue point information . . . receiving a cue point editing command . . . modifying a portion of the cue point information . . . receiving a cue point selection over the network . . . streaming the portion of the video information [.]”); *Intellectual Ventures I*, 850 F.3d at 1328 (finding claims ineligible because they were “not focused on *how* usage of the XML tags alters the database in a way that leads to an improvement in the technology” but the “focus of the claims [] remain[ed] at a high level”) (emphasis in original); *VideoShare*, 2016 WL 4137524 at *7 (“But claim 1 of each patent does not specify *how* these tasks are completed, but rather merely specifies *what* is to happen.”) (emphasis in original); *In-Depth Test, LLC v. Maxim Integrated, Prods., Inc.*, No. 14-887-CFC, 2018 WL 6617142, at *6 (D. Del. Dec. 18, 2018) (“the patent simply claims a conventional computer that . . . is ‘configured’” for certain functions) (citation omitted).

Thus, the asserted claims of the '286 patent fail step one of *Alice*.

2. *Alice* step two: The Challenged claims confer no inventive concept

Under step two, “the relevant inquiry is not whether the claimed invention as a whole is unconventional or non-routine” instead the question is whether there is an “inventive concept” that is “‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) (quoting *Alice*, 573 U.S. at 215). Critically, “a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept.” *Id.*

[REDACTED]

The '286 patent claims use “generic functional language to achieve the[] purported solutions.” *Two-Way Media Ltd v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017). For instance, claim 13 recites only generic and conventional components, *e.g.*, “a computer system having at least one computer-readable medium,” “a server,” “a public network,” and “a client terminal.” The specification confirms these components are generic: “***The application server 110 may be*** a dedicated server computer, a set or network of computers, an [sic] runnable file, or ***any other component capable of serving the desired program functions to a client.***” ('286 patent, 7:1-4) (emphasis added); “These [*client*] terminals may comprise any device or application capable of accessing the system 100 in a useful way . . . like desktop computers, laptop computers, cell phones, personal digital assistants (PDA's), dedicated viewers, etc.” (*id.*, 9:30-37) (emphasis added); “***The network 130 may be any public or private, wired or wireless network or set of networks . . . [and] may comprise any number of computers, configured as centralized or decentralized peer-to-peer networks, ad hoc networks, mesh networks, or any other useful configuration.***” (*id.*, 10:6-24) (emphasis added); 11:22-38; 53:44-52. This confirms that the '286 patent claims lack an inventive concept. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016) (“The claims at issue do not require any nonconventional computer, network, or display components[.]”); *In re TLI Commc'ns*, 823 F.3d at 614.

Nor do claim elements describing where routine computer components and functions are “disposed” or located (*e.g.*, “a video editing environment . . . being disposed at a server side of a public network,” “a remote client terminal disposed at a client side of the public network,” or “modifying a portion of the cue point information at the server side of the public network”) provide an inventive concept—they are merely expected configurations of a conventional video distribution or processing system. A data-processing server being remote from a client terminal is

[REDACTED]

akin to a librarian who is remote from a book publisher. Just as the client terminal can contact the server over a public network, the publisher can contact the librarian over a public telephone network. There is nothing “unconventional” about this standard client-server arrangement—it is the entire foundation of the Internet.

Further, dependent claims 14-15 and 18-20 also only recite conventional components that merely perform additional routine data manipulation steps that do not provide an inventive concept that is significantly more than the recited abstract idea. *See Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1349 (Fed. Cir. 2015) (additional limitations of the dependent claims held not to add an inventive concept, for “they represent merely generic data collection steps or siting the ineligible concept in a particular technological environment”); *Pres. Wellness Techs. LLC v. Allscripts Healthcare Solutions*, No. 2:15-cv-01559-WCB, 2016 WL 2742379, at *11 (E.D. Tex. May 9, 2016) (finding that all dependent claims recite “functions that are not inventive, but simply constitute specific applications of the invention”).

Lastly, there is also nothing “unconventional” about the ordering of the claimed steps. As with any typical data manipulation system, claim 13 of the ’286 patent recites routine steps for modifying cue point information that are performed in a predictable manner such as providing an editing environment, receiving an editing command, and then modifying the data. Additionally, the recited video playback steps are also predictably based on first receiving video and cue point information, selection of a cue point, and then streaming a portion of the video corresponding to the selected cue point. *See Phoenix Licensing, L.L.C. v. Consumer Cellular, Inc.*, No. 2:16-cv-00152-JRG-RSP, 2017 WL 1065938, at *21 (E.D. Tex. Mar. 7, 2017) (finding that claims fail *Alice* step two when “no element or ordered combination of elements in the claims . . . is sufficient to ensure that the claims amount to anything more than patents upon the ineligible concept itself.”).

[REDACTED]

Accordingly, the claims of the '286 patent fail both steps of *Alice* and are invalid under 35 U.S.C. § 101.

- ii. **A chart identifying a description of the industry, at the relevant time, in which the Challenged Claims are alleged to be well understood, routine, and conventional, and the factual and legal basis therefore; and a description of how each element of each Challenged Claim, both individually and in combination with the other elements of that claim, was: (i) well understood; (ii) routine; and (iii) conventional, in the relevant industry at the time, and the legal and factual basis therefor**

The following table contains references that show the state of the art as of the priority date of the Asserted Patent, which shows that, at the time, the Challenged Claims were well understood, routine, and conventional.

Patents/References/Products/Systems	Title/Relevant Information about State of the Art
All of the references cited in these contentions, the '286 patent itself, the references cited by the '286 patent and by its family members, the prosecution history of the '286 patent and its family members, and the references cited during the prosecution history of the '286 patent and its family members	References for this entry and in the table below show the state of “video chaptering,” “video annotation” or “video tagging.” The Asserted Claims of the '286 patent are directed to an abstract idea and include no inventive concept. As of the priority date of the '286 patent, the components and methods claimed in the '286 patent were conventional. The Asserted Claims recite generic hardware: computer system (well-understood and known); computer-readable medium (well-understood and known); public network (well-understood and known); client terminal (well-understood and known). The Asserted Claims recite routine computer/software steps: receiving data (well-understood and known); modifying data (well-understood and known); streaming video (well-understood and known); switching modes (well-understood and known); authenticating users (well-understood and known). The references show that these components and computer-implemented steps are all well-known and not inventive.
MRAS	Video annotation system
WebOrama	Video annotation system
Vannotea	Video annotation system
MediaMatrix	Video annotation system
Classroom 2000 (eClass)	Video annotation system

2004/0021685 (“Denoue”)	Systems and methods for filtering and/or viewing collaborative indexes of recorded media
2002/0175917 (“Chakavarty”)	Method and system for streaming media manager
6,173,317 (“Chadda”)	Streaming and displaying a video stream with synchronized annotations over a computer network
2004/0237032 (“Miele”)	Method and system for annotating audio/video data files
6,476,826 (“Plotkin”)	Integrated system and method for processing video

As discussed above, the limitations of the Asserted Claims comprise generic computing components and functions, basic network architecture, and concepts akin to long-known annotating of parts of a video. The sequence of steps is not inventive, but instead are merely recited in a typical fashion, e.g., receiving cue point information for a video, receiving information to modify cue point information, modifying cue point information, and streaming video based on modified cue point information. As shown in the chart below, each of the limitations of the Asserted Claims, individually and in combination with the other elements of each claim, were well understood, routine, and conventional, in the relevant industry at the relevant time:

	Claim Language of U.S. Patent No. 8,307,286	Description of the Industry
Claim 13		
13[Pre]	A method for handling video cue points, the method comprising:	Methods for handling video cue points were well known. Indeed, many systems that allowed for annotating videos and for editing annotations have been around years before the priority date of the '286 patent. <i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts).
13[a]	providing a computer system having at least one computer-readable medium comprising a video editing environment, and being disposed at a	Providing a computer system having at least one computer-readable medium comprising a video editing environment was well-known. <i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts). Disposing such computer system at a server side of a public network was also well-known.

	Claim Language of U.S. Patent No. 8,307,286	Description of the Industry
	server side of a public network;	<i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts).
13[b]	receiving a set of video information at the video editing environment using the computer system;	Receiving a set of video information at the video editing environment using the computer system was well-known. <i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts).
13[c]	receiving a set of cue point information at the video editing environment using the computer system;	Receiving a set of cue point information at the video editing environment using the computer system was well-known. <i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts).
13[d]	receiving a cue point editing command over the network from a remote client terminal disposed at a client side of the public network using the computer system;	Receiving a cue point editing command over the network from a remote client terminal disposed at a client side of the public network using the computer system was well-known. <i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts).
13[e]	modifying a portion of the cue point information at the server side of the public network according to the cue point editing command received over the public network from the client terminal;	Modifying a portion of the cue point information at the server side of the public network according to the cue point editing command received over the public network from the client terminal was well-known. <i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts).
13[f]	receiving a cue point selection over the network from the remote client terminal identifying one of the cue points corresponding to a	Receiving a cue point selection over the network from the remote client terminal identifying one of the cue points corresponding to a portion of the video information of one of the video files was well-known. <i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts).



	Claim Language of U.S. Patent No. 8,307,286	Description of the Industry
	portion of the video information of one of the video files; and	
13[g]	streaming the portion of the video information to the client terminal over the public network in response to receiving the cue point selection.	Streaming the portion of the video information to the client terminal over the public network in response to receiving the cue point selection was well-known. <i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts).
Claim 14		
14	The method of claim 13, further comprising providing a cue point editing mode as part of the video editing environment configured to perform at least one of creating, modifying, deleting, or interpreting at least a portion of the set of cue point information according to the cue point editing command received over the public network from the client terminal.	Providing a cue point editing mode as part of the video editing environment configured to perform at least one of creating, modifying, deleting, or interpreting at least a portion of the set of cue point information according to the cue point editing command received over the public network from the client terminal was well-known. <i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts).
Claim 15		
15	The method of claim 14, further comprising: receiving an edit mode entry signal over the network from the client terminal	Receiving an edit mode entry signal over the network from the client terminal representing entry into the cue point edit mode, and switching the video editing environment to the cue point editing mode in response to receiving the edit mode entry signal was well-known. <i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts).



	Claim Language of U.S. Patent No. 8,307,286	Description of the Industry
	representing entry into the cue point edit mode, and switching the video editing environment to the cue point editing mode in response to receiving the edit mode entry signal.	
Claim 18		
18	The method of claim 13, further comprising receiving, over the network, authentication information relating to access authority of the remote client terminal.	Receiving, over the network, authentication information relating to access authority of the remote client terminal was well-known. <i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts).
Claim 19		
19	The method of claim 18, further comprising denying or allowing access to all or part of the video editing environment based at least in part on the access authority of the remote client terminal.	Denying or allowing access to all or part of the video editing environment based at least in part on the access authority of the remote client terminal was well-known. <i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts).
Claim 20		
20	The method of claim 13, wherein the server video data is streamed progressively to a video playback environment at the remote client terminal, allowing	The server video data being streamed progressively to a video playback environment at the remote client terminal, allowing the video player to begin displaying streamed server video data while remaining server video data continues to be streamed was well-known. <i>See, e.g.,</i> Disclosures for the corresponding limitations cited in Exhibits 1-14 (Anticipation and Obviousness Charts).

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