IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

S.I.SV.EL. SOCIETA ITALIANA PER LO SVILUPPO DELL' ELETTRONICA S.P.A, Plaintiff, v. RHAPSODY INTERNATIONAL INC., Defendant.	)	Civil Action No. 18-69-MN-CJB
S.I.SV.EL. SOCIETA ITALIANA PER LO SVILUPPO DELL' ELETTRONICA S.P.A, Plaintiff, v. SPOTIFY USA INC., Defendant.	)	Civil Action No. 18-70-MN-CJB

Timothy Devlin, DEVLIN LAW FIRM LLC, Wilmington, DE, Attorney for Plaintiff.

David E. Moore, Bindu A. Palapura and Stephanie E. O'Byrne, POTTER ANDERSON & CORROON LLP, Wilmington, DE; Patrick Bageant, HOLLYSTONE LAW, Boise, ID, Attorneys for Defendant Rhapsody International Inc.

David E. Moore, Bindu A. Palapura and Stephanie E. O'Byrne, POTTER ANDERSON & CORROON LLP, Wilmington, DE; Stefani E. Shanberg and Michael J. Guo, MORRISON & FOERSTER LLP, San Francisco, CA, Attorneys for Defendant Spotify USA Inc.

MEMORANDUM OPINION

June 14, 2019
Wilmington, Delaware

Christine J. Burke

BURKE, United States Magistrate Judge

Presently before the Court in this patent infringement case is Defendant Rhapsody International Inc. ("Rhapsody") and Defendant Spotify USA Inc.'s ("Spotify" and collectively, "Defendants") "Early Motion for Summary Judgment of Invalidity Pursuant to 35 U.S.C. § 101 ["Section 101"]" (the "Motion"), filed pursuant to Federal Rule of Civil Procedure 56. (D.I. 9)[1] Defendants argue that Plaintiff S.I.SV.EL. Societa Italiana per lo Sviluppo Dell'Elettronica S.p.A's ("Plaintiff") asserted United States Patent Nos. 7,412,202 (the "'202 patent"), 8,490,123 (the "'123 patent"), 7,035,863 (the "'863 patent"), 7,734,680 (the "'680 patent") and 8,321,456 (the "'456 patent") (collectively, the "asserted patents" or the "patents-in-suit") are directed to non-patent-eligible subject matter pursuant to Section 101. (D.I. 11) This Memorandum Opinion will address the Motion as it relates to the '456 patent only.[2] For the reasons set out below, the Court GRANTS Defendants' Motion as it relates to that patent.

I. BACKGROUND

A. Factual Background

The '456 patent is entitled "Generating Metadata for Association with a Collection of Content Items[.]" (D.I. 1, ex. 4 (the "'456 patent")) The '456 patent has three independent

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[1] The Motion was originally brought jointly by three Defendants (in three separate cases): Civil Action No. 18-68-MN-CJB (in which the Defendant was Rakuten Kobo Inc.), Civil Action No. 18-69-MN-CJB (in which the Defendant is Rhapsody) and Civil Action No. 18-70-MN-CJB (in which the Defendant is Spotify). (D.I. 9) Subsequent to oral argument on the instant Motion, Plaintiff and Defendant Rakuten Kobo Inc. settled their case, (Civil Action No. 18-68-MN-CJB, D.I. 26; D.I. 27); the other two cases remain pending. Unless otherwise noted, citations to the record herein will refer to the record in Civil Action No. 18-70-MN-CJB.

[2] The Court has previously issued Memorandum Opinions that address the other four asserted patents (the '202 patent, the '123 patent, the '863 patent and the '680 patent). (D.I. 25-32)

claims (claims 1, 13 and 14) and 11 dependent claims. (*Id.*, cols. 14:53-16:62) The "Field of the Invention" section of the patent states that the invention described therein relates to: (1) "a method of automatically generating metadata for association with a collection of content items accessible to a system for processing data included in the content items[,]" (*id.*, col. 1:7-10); (2) "a system for automatically generating metadata for association with a collection of content items[,]" (*id.*, col. 1:11-13); and (3) "a computer program[,]" (*id.*, col. 1:15).

By way of providing an example of how the disclosed invention can be useful, the '456 patent begins by describing how it can be beneficial in the context of visual image content evaluation. The patent explains that at the time of the invention, groups of visual images in a collection of such images could be annotated in various ways. (*Id.*, col. 1:26-27) This could be done by: (1) identifying an image representation for each of the groups; (2) determining the similarity of each of the image representations to each of the other image representations; and (3) annotating the groups of visual images based on the similarity of each image representation to the other image representations. (*Id.*, col. 1:27-32) For example, the image representation for one group could be an average of one or more image characteristics for all visual images of the group. (*Id.*, col. 1:32-35)

The '456 patent explains, however, that an existing problem with such a method was that the average value of an image characteristic "is often not meaningful." (*Id.*, col. 1:36-37) In particular, it notes that for large groups of images, the average value of an image characteristic will "tend to be the median value of the range of possible values of the characteristic . . . mak[ing] the annotation less suitable for browsing and searching hierarchically organized visual images." (*Id.*, col. 1:36-42) The invention then purports to provide a "method, system and computer program . . . that are suitable for generation, with a minimum of human intervention, or

none at all, of an efficient representation of collections of content items for rapid location of such collections by a system for processing the content items." (*Id.*, col. 1:46-52) The patent explains that by "processing [a] selected attribute value(s) to generate the metadata for association with the collection [of content items], a more efficient representation is obtained, compared, for example, to selection of a representative content item or an exhaustive list of all the content items' metadata." (*Id.*, col. 2:4-8)

B. Procedural Background

The Court hereby incorporates by reference the summary of the procedural background of this matter, which was set out in its March 8, 2019 Memorandum Opinion ("March 8, 2019 MO"). (D.I. 25 at 4)

II. STANDARD OF REVIEW

The Court also incorporates by reference the standard of review applicable to summary judgment motions and the legal standards relating to Section 101, which were also set out in the March 8, 2019 MO. (*Id.* at 4-11)

III. DISCUSSION

In resolving Defendants' Motion, the Court will first discuss which claims will be specifically addressed herein. Thereafter, it will analyze the relevant claims under both steps of the test for patent eligibility set out in *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S.Ct. 2347 (2014).

A. Claims at Issue

In its Complaint, Plaintiff alleged infringement of "at least claim 1 of the '456 patent[.]" (D.I. 1 at ¶ 97) In their opening brief, Defendants addressed each of the patent's 14 claims and moved that all of these claims be found ineligible. (D.I. 11 at 29) Plaintiff, in its answering

brief, then made specific reference only to the content of independent claim 1 and dependent claims 5 and 6, in explaining why all of the patent's claims were patent eligible. (D.I. 14 at 24-28; *see also* D.I. 16 at 29) In light of this, the Court will address only these three claims herein, understanding that Plaintiff's arguments for eligibility as to all of the patent's claims rise and fall on the arguments it made with regard to these particular claims. *See Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365-66 (Fed. Cir. 2018); *TMI Sols. LLC v. Bath & Body Works Direct, Inc.*, C.A. No. 17-965-LPS-CJB, 2018 WL 4660370, at *6 (D. Del. Sept. 28, 2018).

Claim 1 recites:

> **1.** Method of automatically generating metadata for association with a collection of content items accessible to a processing system for processing data included in the content items, including:
>
> in the processing system,
>
> obtaining sets of metadata associated with the content items individually, each set of metadata including at least one attribute value associated with the content item,
>
> analyzing at least one distribution of values of an attribute over the sets of metadata associated with the respective content items,
>
> selecting at least one attribute value in dependence on the analysis,
>
> processing the selected attribute value(s) to generate the metadata for association with the collection, and
>
> making the generated metadata available to the processing system for processing data included in the content items in connection with an identification of the collection of content items, wherein the step of selecting at least one attribute value includes selecting at least one attribute by comparative analysis of distributions of values over the sets of metadata associated with the respective content items individually of each of a plurality of attributes.

('456 patent, cols. 14:54-15:10) Claims 5 and 6 read:

> **5.** Method according to claim **1**, wherein the comparative analysis includes, for each of a plurality of candidate attributes,
>
> partitioning the collection of content items into disjoint sets according to similarity of values of that candidate attribute associated with the respective content items individually, and
>
> ranking the attributes according to a factor based at least on a relative size of a largest set in the partition made for the candidate attribute, with respect to a size of the collection.
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> **6.** Method according to claim **1**, wherein the comparative analysis includes ranking candidate attributes according to a factor based at least partly on priority values assigned to the candidate attributes.

(*Id.*, col. 15:26-40)

B. *Alice*'s Step One

Defendants assert that the claims of the '456 patent are directed to the abstract idea of "generating metadata for content[.]" (D.I. 11 at 29)[3] They assert that claim 1 is comprised of five steps: (1) "obtaining sets of metadata" associated with content items, with each set having "at least one attribute value associated with the content items[;]" (2) "analyzing at least one distribution of values" of an attribute; (3) based on that analysis, selecting at least one attribute value; (4) "processing the selected attribute value" in order to "generate the metadata for association with the collection[;]" and (5) "making the generated metadata available to the processing system[.]" ('456 patent, cols. 14:54-15:10; *see* D.I. 17 at ¶ 87)[4] And Defendants

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[3] Metadata, as Defendants explain, is just (and here, as used in the computer context) "data about data." (D.I. 17 at ¶ 92; Tr. at 119; *see also* '456 patent, col. 2:1-3 ("In the present context, metadata is taken to mean structured encoded data that describes characteristics of information-bearing entities."))

[4] For purposes of the resolution of this Motion, and despite what is at times suggested in their briefing, (D.I. 11 at 31; D.I. 16 at 30; *see also* D.I. 17 at ¶ 92), Defendants do not dispute that the claims are employed in a computerized environment, (Tr. at 122-23, 129). The Court will assume the same herein.

claim that "obtaining sets of metadata, analyzing values, selecting values, processing them to generate metadata, and making the generated metadata available are all part of the abstract idea of generating metadata for content." (D.I. 16 at 29)

In response, Plaintiff does not strongly contest that "generating metadata for content" is an abstract idea; instead, it mainly argues that the claims are not "directed to" such an idea. (D.I. 14 at 24-26) In that regard, Plaintiff asserts that Defendants have (1) failed to account for numerous "unconventional" elements of claim 1; (2) failed to recognize that dependent claims 5 and 6 "offer an even narrower focus" on "subject matter far more distinct than the purported 'abstract idea'" and (3) ignored the fact that the invention is to a detailed improvement in a computerized field. (*Id.*)

Of course, Defendants are correct that, at some level, the claims at issue are about "generating metadata for content." That is basically what the preamble of claim 1 suggests, for example, in noting that the claim is to a "[m]ethod of automatically generating metadata for association with a collection of content items[.]" ('456 patent, col. 14:54-55; *see also* D.I. 17 at ¶ 86)

And to be sure, there are various portions of the specification that, read the right way, support Defendants' position—i.e., that "generating metadata for content" *is* the basic thrust of the patent. The patent's title, for example, is the abstract idea worded slightly differently: "Generating Metadata for Association with a Collection of Content Items[.]" ('456 patent, Title) The "Abstract" section starts out by using just the same method of description of what the patent is about: "[a] method of automatically generating metadata for association with a collection of content items[.]" (*Id.*, Abstract) The "Field of the Invention" section is just three single sentence-paragraphs long, but those paragraphs say little more than that the "invention relates

to": (1) "generating metadata" for (2) "association with a collection of content items." (*Id.*, col. 1:7-8, 11-12) And the "Summary of the Invention" section also begins by broadly characterizing the object of the invention as providing for "an efficient representation of collections of content items for rapid location of such collections" (though the section goes on to describe the invention in more detailed terms). (*Id.*, col. 1:46-52)[5]

But on the other hand, "generating metadata for content" can seem like *so* broad a concept that it causes one to question whether the claims could really be "directed to" *only* that and no more. For example, during his deposition, Defendants' expert Dr. Kevin Jeffay acknowledged that performing an act as simple as saving a document on the word processing program Microsoft Word could be an example of "generating metadata for content." (D.I. 21, ex. B at 137-38) The claims at issue are surely different than (and arguably more nuanced than) *that*.

Moreover, in explaining why Defendants' step one position is wrong, Plaintiff's counsel pointed to the fifth element of claim 1. (Tr. at 126) That element (the "making" element) refers back to the earlier third "selecting" element, and in doing so, notes that "the step of selecting at least one attribute value includes" doing so by "comparative analysis of distributions of values over the sets of metadata associated with the respective content items individually of each of a plurality of attributes." ('456 patent, col. 15:3-10) Claims 5 and 6 then contain further limitations on what this "comparative analysis" must include—i.e., that it must allow for partitioning the content items into "disjoint sets according to similarity of values of [a] candidate

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[5] At one point in its briefing, Plaintiff also appeared to unintentionally reinforce Defendants' argument here, when, in comparing this case to other cases, Plaintiff explained that "*metadata generation* is at the heart of the invention." (*See* D.I. 14 at 27 (emphasis added))

attribute" and for "ranking the attributes" in certain ways. (*Id.*, col. 15:26-40; D.I. 14 at 25) And, though the specification never comes out and says that these processes of "comparative analysis" are at the heart of the invention, it does at least go on at some length about them. (*See, e.g.*, '456 patent, cols. 8:17-14:3) Does that mean the claims should fairly be described as being "directed to" a more specific way of "generating metadata for content"?

In the end, the step one question is a close call. In light of this, the Court will analyze whether the claims amount to an improvement to computer technology (or otherwise contain an inventive concept) at step two. *Cf. Enfish, LLC v. Microsoft Corp.*, 822 F.3d. 1327, 1339 (Fed. Cir. 2016) (noting that there may sometimes be "close calls" about how to characterize what a claim is directed to at *Alice* step one, and in such scenarios, an analysis of whether the claims amount to an improvement to computer technology could take place at step two).

C. *Alice*'s Step Two

At step two, Defendants argue that none of the individual limitations or elements of the claims amount to the use of anything other than well-understood, routine and conventional technology or processes. For example, Defendants' expert Dr. Jeffay states that the claims of the patent are "nothing special" and "all contain well-known and conventional limitations . . . when considered individually[.]" (D.I. 17 at ¶ 96)[6] He explains that "[o]btaining, analyzing, and making metadata available was well-known and conventional to a POSITA at the time of the '456 patent's filing." (*Id.* at ¶ 98) Dr. Jeffay notes, for example, that the metadata to be

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[6] The Court herein discusses primarily the use of claimed software, as Defendants assert (and Plaintiff does not really contest) that the claims "fail to require any specific hardware." (D.I. 11 at 31; *see also* '456 patent, col. 6:14-17 ("The computer **1** can be implemented as a general-purposes personal computer, a media player . . . or a similar portable device such as a Personal Digital Assistant or smart phone."))

generated via the claims was well-known and that the metadata itself comes from conventional sources. (*Id.*; *see also* '456 patent, col. 7:38-49, 55-62) Dr. Jeffay also explains that the various claim steps were themselves each conventional; by way of example, he asserts that as to the claims' "analyzing" and "selecting" steps, a POSITA would have been familiar with partitioning sets based on value similarity, with assigning ranks to particular attributes and with the "well-known and conventional mathematical technique" of "comparative analysis." (D.I. 17 at ¶ 99) Indeed, Plaintiff does not substantively argue that any individual element of the claims amounts to an inventive concept.

What is in dispute is whether elements of claims 1, 5 and 6—considered as an ordered combination—amount to an inventive concept that passes step two of *Alice*'s test. Dr. Jeffay says that they do not. He asserts that he has "considered the claims as an ordered combination and [has] not found anything inventive within them." (*Id.* at ¶ 102)

Plaintiff's expert, Dr. Michael J. Pazzani, disagrees. He asserts that "[i]n the mid 2000s, [the patent-in-suit's] features and components were unconventional" and brought together "numerous unconventional elements and steps previously unknown in the field of computerized metadata generation technology." (D.I. 15 at ¶¶ 39, 41) More specifically, he explains that the type of analysis described in claim 1 "improves a computerized metadata generation technology through the features described" therein by "eliminat[ing] the previous 'averages' problem wherein for large groups of content, the average value of the content characteristic will not be particularly meaningful" and opines that "[p]rior to the '456 invention this was not possible." (*Id.* at ¶ 41) In other words, Dr. Pazzani explains, "prior art systems did not have the ability to [] efficiently, accurately, and rapidly generate useful metadata representative of, and meaningfully useful to, large collections of content items[;]" he asserts that the invention thus "provided

efficient means for automatically generating metadata for association with a collection of content items." (*Id.* at ¶ 42) And Dr. Pazzani also states that with regard to claim 5's addition of partitioning a collection of content items into "disjoint sets," it was "not all obvious that such characteristics would provide benefit to improving a recommender system and the use of these was not at all conventional in the mid-2000s." (*Id.* at ¶ 46)

At first blush, this might seem like a dispute between the experts that would require denial of the Motion. But in the Court's view, that is not the appropriate way to look at this step two issue. Instead, the Court agrees with Defendants, (Tr. at 121-24), that even if the claims here amount to an innovation, what they describe is an improvement in wholly abstract ideas—those involving the selection of and mathematical analysis of information. And such claims cannot be patent eligible.

In that regard, the issues here are similar to those in *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161 (Fed. Cir. 2018). The claims in *SAP* related to techniques that utilize resampled statistical methods for the analysis of financial data that do not assume a normal probability distribution. *SAP*, 898 F.3d at 1164. Claim 1 of the patent-in-suit there is representative for our purposes, and it read as follows:

> 1. A method for calculating, analyzing and displaying investment data comprising the steps of:
>
> (a) selecting a sample space, wherein the sample space includes at least one investment data sample;
>
> (b) generating a distribution function using a resampled statistical method and a bias parameter, wherein the bias parameter determines a degree of randomness in a resampling process;[7] and

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[7] The patent described using a "bias parameter" to "specif[y] the degree of randomness in the resampling process." *SAP*, 898 F.3d at 1164 (internal quotation marks and citation omitted).

(c) generating a plot line of the distribution function.

Id. The *SAP* Court first explained that prior Federal Circuit caselaw had established that claims focused on "'collecting information, analyzing it, and displaying certain results of the collection and analysis' are directed to an abstract idea." *Id.* at 1167 (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)). And it noted that claims to "'analyzing information . . . by mathematical algorithms, without more'" and/or "'merely presenting the results of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation)'" are also so directed. *Id.* (citing *Elec. Power Grp.*, 830 F.3d at 1354). Thereafter, the *SAP* Court concluded that the claims of the patent-in-suit there were to similar abstract concepts—i.e., they were claims on "selecting certain information, analyzing it using mathematical techniques, and reporting or displaying the results of the analysis." *Id.* The *SAP* Court noted at step one that even though the claims implicated the use of computer technology, "the focus of the claims is not to any improved computer or network, but the improved mathematical analysis; and indeed, the specification makes clear that off-the-shelf computer technology is usable to carry out the analysis." *Id.* at 1168. Similarly, the Court noted at step two that though some of the claims required the use of particular methods of resampling, and that others required various databases and processors, that did not save the claims' eligibility. *Id.* at 1169-70. That was because the former set of claims amounted to "further narrowing of what are still mathematical operations [that were themselves within] the abstract realm" and the latter set of claims involved limitations that "require no improved computer resources [that the patentee] claims to have invented, just already available computers, with their already available basic functions, to use as tools in executing the claimed process." *Id.* In the

end, the claims in *SAP* were "legally equivalent to claims simply to the asserted advance in the realm of abstract ideas—an advance in mathematical techniques in finance" and were not patent eligible. *Id.* at 1170.

Like in *SAP*, here the claims at issue are about (1) selecting certain information (attributes of metadata); and (2) doing so by way of forms of mathematical analyses (e.g., via types of comparative analysis, such as those that analyze distributions of values over the sets of metadata associated with respective content items, or that do so by partitioning content items into disjoint sets, or by ranking certain attributes); then (3) making use of those attribute values to generate new information (related metadata) that can be used thereafter. The claims do implicate the use of computers, but as in *SAP*, they do not require use of anything more than off-the-shelf computer technology. Instead, these claims use computers as a tool to implement what is really an assertedly better way of analyzing data using mathematical techniques. (D.I. 17 at ¶ 93 (Dr. Jeffay opining that the "supposed problems solved by the '456 patent . . . have nothing to do with computers" and that in describing how the claims overcame the "'averages'" problem, the claims put forward a way of using a "better, more descriptive statistical measure . . . that [evades a] shortcoming [that] has nothing to do with computers"); *id.* at ¶ 99 (Dr. Jeffay describing the claims' use of comparative analysis and of ranking attributes based on the highest factor as making use of mathematical concepts))[8] And thus, although Dr. Pazzani asserts that the claims contain a new "unconventional" solution to a prior art problem, what he is really saying is that the claims were an advance in the realm of abstract ideas (one that "eliminate[d] the previous

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[8] *Cf. Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) ("Without additional limitations, a process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible.").

'averages' problem wherein for large groups of content, the average value of the content characteristic will not be particularly meaningful"). (D.I. 15 at ¶¶ 41-42) So his opinion cannot generate a *material* dispute of fact on the question of eligibility.

For the above reasons, the claims do not include an inventive concept. A grant of summary judgment is thus appropriate here.

IV. CONCLUSION

For the foregoing reasons, the Court finds that Defendants' Section 101 Motion with regard to the '456 patent should be GRANTED.

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ORDER

At Wilmington, Delaware this **14th** day of **June, 2019**;

For the reasons stated in the Memorandum Opinion issued this same date, IT IS HEREBY ORDERED that Defendants' Motion, (D.I. 9), is GRANTED as it relates to claims regarding U.S. Patent No. 8,321,456.

Christopher J. Burke
UNITED STATES MAGISTRATE JUDGE