



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
**United States Patent and Trademark Office**  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/321,231	07/01/2014	Igal Raichelgauz	COR-095ME-C	4913
158341	7590	01/24/2020	EXAMINER	
Cortica Ltd. 103 Allenby Street Tel Aviv, 6513443 ISRAEL			WONG, LUT	
			ART UNIT	PAPER NUMBER
			2121	
			NOTIFICATION DATE	DELIVERY MODE
			01/24/2020	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eofficeaction@appcoll.com  
karen.moses@cortica.com  
patents@cortica.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* IGAL RAICHELGAUZ, KARINA ODINAEV, and  
YEHOASHUA Y. ZEEVI

---

Appeal 2018-003093  
Application 14/321,231  
Technology Center 2100

---

Before LARRY J. HUME, JAMES W. DEJMEK, and  
MATTHEW J. McNEILL, *Administrative Patent Judges*.

DEJMEK, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant<sup>1</sup> appeals under 35 U.S.C. § 134(a) from a Final Rejection of claims 1–6, 8–13, and 15–21. Appellant has canceled claims 7 and 14. *See* Appeal Br. 15, 17. We have jurisdiction over the remaining pending claims under 35 U.S.C. § 6(b).

We affirm.

---

<sup>1</sup> Throughout this Decision, we use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42 (2016). Appellant identifies Cortica, Ltd. as the real party in interest. Appeal Br. 3.

## STATEMENT OF THE CASE

### *Introduction*

Appellant's disclosed and claimed invention generally relates to "linking a multimedia data element (MMDE) and a webpage." Abstract. In a disclosed embodiment, a MMDE is received by the system and a signature of the data element is generated and compared against a plurality of signatures stored in a database. Spec. ¶ 10. When a matching signature is detected, a universal resource locator (URL) of a corresponding web page, stored as metadata to the matching signature, may be provided in response to the received MMDE. Spec. ¶ 10.

Claim 1 is exemplary of the subject matter on appeal and is reproduced below with the disputed limitation emphasized in *italics*:

1. A method for linking between a multimedia data element (MMDE) and a web page, comprising:

receiving a MMDE from a source;

generating a signature representative of the MMDE using a plurality of computational cores, each computational core having properties statistically independent of each other computational core, each computational core generates, responsive to the received MMDE, at least a signature comprising a first signature element and a second signature element, the first signature element being robust at least to noise, wherein the first signature element is based on a robust signature threshold;

matching the generated signature with a plurality of signatures stored in a database to find at least one matching signature, wherein each signature of the stored plurality of signatures is generated by the plurality of computational cores, and *wherein at least one of the stored signatures has at least one corresponding universal resource locator (URL) of a web page stored therein as metadata of the at least one of the stored signatures*; and

providing to the source at least a URL that is a metadata of a matched signature upon determination of a match between the generated signature and at least one of the plurality of signatures stored in the database.

*The Examiner's Rejections*

1. Claims 1–6, 8–13, and 15–21 stand rejected under the doctrine of nonstatutory obviousness-type double patenting over claims 1–19 of U.S. Patent No. 8,818,916 B2. Final Act. 3.

2. Claims 1–6, 8–13, and 15–21 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Jonathan T. Foote, *Content-Based Retrieval of Music and Audio*, Institute of Systems Science, National University of Singapore (1997) (“Foote”); Leandro de C.T. Gomes, et al., *Audio Watermarking and Fingerprinting: For Which Applications?*, Université René Descartes, Paris, France (2002) (“Gomes”); and Hans-Joachim Stolberg, et al., *HiBRID-SoC: A Multi-Core SoC Architecture for Multimedia Signal Processing*, Journal of VLSI Signal Processing 41, 9–20 (2005) (“Stolberg”). Final Act. 7–16.

3. Claims 1–6, 8–13, and 15–21 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Ans. 3–6.

ANALYSIS<sup>2</sup>

*Obviousness-type Double Patenting Rejection*

Appellant disputes the Examiner’s conclusion that the instant claims are not patentably distinct from the claims of U.S. Patent No. 8,818,916

---

<sup>2</sup> Throughout this Decision, we have considered the Appeal Brief, filed October 4, 2017 (“Appeal Br.”); the Reply Brief, filed January 29, 2018

(“the ’916 patent). Appeal Br. 7–8; Reply Br. 7. In particular, Appellant argues that claims 1 and 7 of the ’916 patent, as relied on by the Examiner, fail to recite a robust signature threshold. Appeal Br. 7–8; Reply Br. 7. Appellant alleges the Examiner is improperly relying on the disclosure of the ’916 patent instead of only the claims to support the rejection. Reply Br. 7. Additionally, Appellant argues the claims of the ’916 patent fail to recite that “the stored signatures are generated by the computational cores or that any of the stored signatures have corresponding URLs stored therein as metadata.” Appeal Br. 8.

In response, the Examiner provides a comprehensive table identifying the claim language of the instant claims and the claim language of claims 1 and 7 from the ’916 patent. *See* Ans. 7–10. Regarding the robust signature threshold, the Examiner finds claim 7 of the ’916 patent recites “the first signature element being a robust signature” and “wherein the robust signature is being robust to at least additive noise.” Ans. 9 (emphases omitted). The Examiner explains that although the term threshold is not recited, by reciting that the signature is robust, it is implied that the robustness of the signature is relative to a robust signature threshold. Ans. 9. Also, the Examiner finds claim 1 of the ’916 patent recites that a “URL is part of a metadata of the matching concept structure” and that the extracted URL is associated “with the signature as a metadata of the signature.” Ans. 10 (emphasis omitted). In addition, the Examiner finds claim 7 of the

---

(“Reply Br.”); the Examiner’s Answer, mailed November 29, 2017 (“Ans.”); and the Final Office Action, mailed January 6, 2017 (“Final Act.”), from which this Appeal is taken.

'916 patent recites each computational core generates at least a signature.  
Ans. 9.

Contrary to Appellant's assertions, we agree with the Examiner's reasoning that by characterizing the signature as being robust—particularly “wherein the robust signature is being robust to at least additive noise,” as recited in claim 7 of the '916 patent—the robustness of the signature is relative to a threshold (i.e., the robust signature threshold). Moreover, we agree with the Examiner that by reciting each computational core generates at least a signature, and that a URL of a web page is associated with the signature “as a metadata,” the claims of the '916 patent teach the stored signatures are generated by the computational cores, and that any of the stored signatures have corresponding URLs stored therein as metadata. *See, e.g., '916 patent (claims 1 and 7).*

For the reasons discussed *supra*, we are unpersuaded of Examiner error. Accordingly, we sustain the Examiner's rejection under the doctrine of obviousness-type double patenting of independent claim 1 over the cited claims of the '916 patent. For similar reasons, we also sustain the obviousness-type double patenting rejection of claims 2–6, 8–13, and 15–21. *See Final Act. 3–6; Ans. 7–11; see also 37 C.F.R. § 41.37(c)(1)(iv).*

*Rejection under pre-AIA 35 U.S.C. § 103(a)*

In rejecting independent claim 1, the Examiner finds Foote teaches most of the limitations, but relies on Gomes to teach the first signature element being robust to at least noise, and Stolberg to teach a plurality of statistically independent computational cores for generating the signatures. *See Final Act. 7–11.* In particular, and at issue, the Examiner finds Foote

teaches “at least one of the stored signatures has at least one corresponding universal resource locator (URL) of a web page stored therein as metadata of the at least one of the stored signatures.” Final Act. 8 (citing Foote § 5); *see also* Ans. 13.

To the extent that the Examiner finds Foote’s generated template corresponds to the claimed generated signature, Appellant argues Foote’s template does not comprise the source URL, but rather Foote teaches the template is saved with the source URL. Appeal Br. 8–9; Reply Br. 8–10. More specifically, Appellant asserts the claim language explicitly recites the URL is “stored therein as metadata of the at least one of the stored signatures” and Foote teaches the URL is saved with the source URL—that is, Foote’s template (the signature) does not comprise or include the URL. Reply Br. 9 (emphasis omitted).

Foote generally relates to “an audio search engine that can retrieve sound files from a large corpus based on similarity to a query sound.” Foote § 1. Foote teaches the query sound is received and a template of the sound is generated. Foote §§ 1–2. As relied on by the Examiner (*see* Final Act. 8), Foote further teaches “[a] large collection of templates can then be amassed in reasonable storage space, because the actual audio can be discarded *provided the source URL is saved with the template.*” Foote § 5 (emphasis added).

We agree with Appellant that the claims require more than the URL is saved with the signature, as taught by Foote. Instead the claims require the URL of a corresponding web page to be stored as metadata of the at least one stored signatures. The Examiner has not provided sufficient evidence or

persuasive technical reasoning that Foote (or the other cited references) teaches or reasonably suggests storing the URL as metadata.

For the reasons discussed *supra*, we are persuaded of Examiner error. Accordingly, we do not sustain the Examiner's rejection under pre-AIA 35 U.S.C. § 103(a) of independent claim 1. For similar reasons we do not sustain the Examiner's rejection under pre-AIA 35 U.S.C. § 103(a) of independent claims 11 and 12, which recite similar limitations. In addition, we do not sustain the Examiner's rejection under pre-AIA 35 U.S.C. § 103(a) of claims 2–6, 8–10, 13, and 15–21, which depend directly or indirectly therefrom.

*Rejection under 35 U.S.C. § 101*

In the Answer, the Examiner sets forth a new ground of rejection, rejecting the pending claims under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Ans. 3–6. In particular, the Examiner determines the claims are directed to “linking data with [a] webpage,” which the Examiner analogizes to the mental processes of collecting information, analyzing the collecting information, and displaying the results of the analysis. Ans. 3 (citing *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016)). Further, the Examiner determines the claims do not recite significantly more than the abstract idea to confer patent eligibility. Ans. 3–4. Instead, the Examiner finds the claims recite generic computer components performing generic computer functions that are well-understood, routine, and conventional activities. Ans. 4.

Appellant disputes the Examiner's conclusion of patent ineligibility and asserts the Examiner oversimplifies the claims. Reply Br. 4–5.

Moreover, Appellant argues the claims are significantly more than the alleged abstract idea by improving computer functionality. Reply Br. 5–6.

The Supreme Court’s two-step framework guides our analysis of patent eligibility under 35 U.S.C. § 101. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014). In addition, the Office has published revised guidance for evaluating subject matter eligibility under 35 U.S.C. § 101, specifically with respect to applying the *Alice* framework. USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Office Guidance”). If a claim falls within one of the statutory categories of patent eligibility (i.e., a process, machine, manufacture, or composition of matter) then the first inquiry is whether the claim is directed to one of the judicially recognized exceptions (i.e., a law of nature, a natural phenomenon, or an abstract idea). *Alice*, 573 U.S. at 217. As part of this inquiry, we must “look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016).

Per Office Guidance, this first inquiry has two prongs of analysis: (i) does the claim recite a judicial exception (e.g., an abstract idea), and (ii) if so, is the judicial exception integrated into a practical application. 84 Fed. Reg. at 54. Under the Office Guidance, if the judicial exception is integrated into a practical application, *see infra*, the claim is patent eligible under § 101. 84 Fed. Reg. at 54–55. If the claims are not directed to an abstract idea, the inquiry ends. *See McRO, Inc. v. Bandai Namco Games Am.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016). However, if the claim *is* directed to a judicial exception (i.e., recites a judicial exception and does not integrate the

exception into a practical application), the next step is to determine whether any element, or combination of elements, amounts to significantly more than the judicial exception. *Alice*, 573 U.S. at 217; 84 Fed. Reg. at 56.

Here, we conclude the claims are directed to determining, for a received multimedia data element (MMDE), a universal resource locator (URL) for a web page corresponding to the received MMDE. This is consistent with how Appellant describes the claimed invention. *See* Spec. ¶¶ 2 (describing that the invention “relates to the automatic association of content to a web page using signatures”), 10 (“linking between a multimedia data element (MMDE) and a web page”), 22 (describing the system is “used to provide universal resource locators (URLs) associated with signatures to enable access of web pages responsive of input MMDEs”). As set forth in the Specification—and as recited in the claims—after a MMDE has been received, a signature representative of the MMDE is generated and compared to a plurality of signatures stored in a database to determine a matching signature. *See* Spec. ¶¶ 10–11, 22; claim 1. Stored within the metadata of the matching signature is a URL to a web page associated with the matching signature, and is, therefore, determined to be relevant to the received MMDE. *See* Spec. ¶ 22.

We disagree with the Examiner that the instant claims recite a scenario analogous to that in *Electric Power*. *See* Ans. 3. Rather, in *Electric Power*, the court determined the focus of the pending claims was “on collecting information, analyzing it, and displaying certain results of the collection and analysis.” *Elec. Pwr.*, 830 F.3d at 1353. Further, the court explained that “[i]nformation as such is an intangible” and that the collection of information falls within the realm of abstract ideas. *Elec. Pwr.*, 830 F.3d

at 1353. In addition, “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more [are treated] as essentially mental processes within the abstract-idea category.” *Elec. Pwr.*, 830 F.3d at 1354.

Here, we agree with Appellant that the generation of a robust signature representative of the received MMDE is more than merely a mental process within the guidelines provided by the court in *Electric Power*, i.e., as a practical matter generation of a robust signature of a received MMDE could not be performed entirely in a human’s mind. *See Research Corp. Techs. v. Microsoft Corp.*, 627 F.3d 859, 868 (Fed. Cir. 2010) (a method for rendering a halftone image of a digital image by comparing, pixel by pixel, the digital image against a blue noise mask was found to recite patent-eligible subject matter because the method could not, as a practical matter, be performed entirely in a human’s mind); *SiRF Tech., Inc. v. Int’l Trade Comm’n.*, 601 F.3d 1319, 1331–33 (Fed. Cir. 2010) (a method for calculating an absolute position of a GPS receiver and an absolute time of reception of satellite signals was found to recite patent-eligible subject matter because there was “no evidence . . . that the calculations here [could] be performed entirely in the human mind”). Accordingly, the instant claims are not directed to a mental process (a category of abstract ideas).

Further, as the court discussed in *Enfish*, claims that improve an existing technology might not succumb to the abstract idea exception of patent eligibility. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). In *Enfish*, the court framed the first step of the *Alice* inquiry as whether the focus of the claims is on a specific asserted

improvement in computer capabilities or, instead on an abstract idea that merely uses a computer as a tool for carrying out the abstract idea. *Enfish*, 822 F.3d at 1335–36.

Here, we agree with Appellant that the claims recite an improvement to the technical field of multimedia-driven searching. *See* MPEP § 2106.05(a) (9th ed., rev. 07.2015, Nov. 2015). As set forth in the Specification, prior art techniques for searching based on multimedia data element inputs is limited by currently inadequate descriptions of the multimedia data element, either as a search term or contained within metadata. *See* Spec. ¶¶ 3–9. By generating a robust signature of the multimedia data element, the claimed invention need not rely on a description of the element, but instead, a search may be conducted based on the actual content of the multimedia data element.

For the reasons discussed *supra*, we are persuaded of Examiner error. Accordingly, we do not sustain the Examiner’s rejection under 35 U.S.C. § 101 of claims 1–6, 8–13, and 15–21.

#### CONCLUSION

We affirm the Examiner’s decision rejecting claims 1–6, 8–13, and 15–21 under the doctrine of obviousness-type double patenting.

We reverse the Examiner’s decision rejecting claims 1–6, 8–13, and 15–21 under pre-AIA 35 U.S.C. § 103(a).

We reverse the Examiner’s decision rejecting claims 1–6, 8–13, and 15–21 under 35 U.S.C. § 101.

DECISION SUMMARY

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1-6, 8-13, 15-21		Nonstatutory Obviousness-type Double Patenting	1-6, 8-13, 15-21	
1-6, 8-13, 15-21	103(a)	Foote, Gomes, Stolberg		1-6, 8-13, 15-21
1-6, 8-13, 15-21	101	Eligibility		1-6, 8-13, 15-21
<b>Overall Outcome</b>			1-6, 8-13, 15-21	

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 41.50(f).

AFFIRMED