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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* LIANG LIANG and SZEPO R. HUNG

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Appeal 2018-001678  
Application 12/774,491  
Technology Center 2400

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Before CARLA M. KRIVAK, CARL W. WHITEHEAD JR., and  
JON M. JURGOVAN, *Administrative Patent Judges*.

WHITEHEAD JR., *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants are appealing the final rejection of claims 1–45 and 47 under 35 U.S.C. § 134(a). Appeal Brief 1. We have jurisdiction under 35 U.S.C. § 6(b) (2012).

We reverse.

*Introduction*

“Video encoding techniques may perform video compression via spatial and temporal prediction to reduce or remove redundancy inherent in video sequences. A video capture device, e.g., video camera, may capture video and send it to video encoder for encoding. The video encoder processes the captured video, encodes the processed video, and transmits the encoded video data for storage or transmission. In either case, the encoded video data is encoded to reproduce the video for display. The available bandwidth for storing or transmitting the video is often limited, and is affected by factors such as the video encoding data rate.”

Appeal Brief 3.

*Illustrative Claim*

1. A method comprising:
  - estimating, in a video capture module, a blurriness level of a frame of video data captured during a refocusing process, wherein said estimating is based on at least one refocusing statistic associated with the frame; and
  - encoding, in a video encoder, the frame based at least in part on the estimated blurriness level of the frame.

*Rejections on Appeal<sup>1</sup>*

Claims 1, 12, 23 and 34 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 13, 25 and 36 of copending Application 13/114,844, Park (US

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<sup>1</sup> The Examiner invokes 35 USC§ 112, 6<sup>th</sup> paragraph in regard to claims 35-44. Final Action 7; Advisory Action 7.

Appeal 2018-001678  
Application 12/774,491

Patent Application Publication 2009/0074396 A1; published March 19, 2009; “Park ’396”) and Gutman (US Patent Application Publication 2010/0278231 A1; published November 4, 2010). Final Action 3-7; Advisory Action 3–7.

Claim 1 is rejected under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. Claim 1 is directed to an abstract idea, specifically that estimating is based on a refocusing statistic. Answer 26–27.

Claims 1, 3, 12, 14, 23, 25, 34, 36 and 45 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Park ’396” and Gutman. Answer 2–4.

Claims 2, 13, 24, 35 and 47<sup>2</sup> stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Park, Gutman, and Hsu (US Patent 7,528,883 B2, issued May 5, 2009). Answer 4–6.

Claims 4, 15, 26 and 37 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Park, Gutman, Goldstein (US Patent Application Publication 2004/0179593 A1, published September 16, 2004), and Kim (US Patent Application Publication 2009/0244319 A1, published October 1, 2009; “Kim ’319”). Answer 6–8.

Claims 5, 16, 27 and 38 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Park ’396, Gutman, Morino (US Patent 6,822,758 B1, issued November 23, 2004), and Kim ’319. Answer 8–9.

Claims 6, 17, 28 and 39 stand rejected under pre-AIA 35 U.S.C.

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<sup>2</sup> “An Amendment was filed February 21, 2017 to amend claims 1 and 47 and to cancel claim 46.” Appeal Brief 1.

Appeal 2018-001678  
Application 12/774,491

§ 103(a) as being unpatentable over Park '396, Gutman, Morino, and Park (US Patent Application Publication 2010/0086035 A1, published 2010; "Park '035"). Answer 9–11.

Claims 7, 18, 29 and 40 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Park '396, Gutman, and Au (US Patent 7,720,148 B2, issued May 18, 2010). Answer 11–12.

Claims 8, 19, 30 and 41 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Park '396, Gutman, Au, and Kim (US Patent Application Publication 2009/0051783 A1, published 26, 2009; "Kim '783"). Answer 12–14.

Claims 9, 20, 31 and 42 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Park '396, Gutman, and Kim '783. Answer 14–15.

Claims 10, 21, 32 and 43 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Park '396, Gutman, Kim '783, Yamasaki (US Patent 7,084,909 B2, issued August 1, 2006), and Kim '319. Answer 15–17.

Claims 11, 22, 33 and 44 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Park '396, Gutman, and Yoda (US Patent Application Publication 2011/0150366 A1, published June 23, 2011). Answer 17–18.

## ANALYSIS

### *Rejection under 35 U.S.C. § 101*

Rather than reiterate the arguments of Appellants and the Examiner, we refer to the Appeal Brief (filed July 14, 2017), the Reply Brief (filed

December 5, 2017), the Answer (mailed October 13, 2017) and the Final Action (mailed December 21, 2016) for the respective details.

Appellants argue the 35 U.S.C. § 101 rejection of claim 1 is invalid because the “rejection presents nothing more than a bare conclusion and fails to articulate any rationale based on any claim language.” Appeal Brief 28. Appellants further argue, “the Advisory Action does not even identify the allegedly abstract idea that is allegedly recited, making it impossible to provide any substantive response.” Appeal Brief 28.

The Supreme Court has set forth an analytical “framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71–73 (2012)). In the first step of the analysis, we determine whether the claims at issue are “directed to” a judicial exception, such as an abstract idea. *Alice*, 134 S. Ct. at 2355. If not, the inquiry ends. *Thales Visionix Inc. v. U.S.*, 850 F.3d 1343, 1346 (Fed. Cir. 2017); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016). If the claims are determined to be directed to an abstract idea, then we consider under step two whether the claims contain an “inventive concept” sufficient to “transform the nature of the claim into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quotations and citation omitted).

Noting that the two stages involve “overlapping scrutiny of the content of the claims,” the Federal Circuit has described “the first-stage inquiry” as “looking at the ‘focus’ of the claims, their ‘character as a whole,’” and “the second-stage inquiry (where reached)” as “looking more

precisely at what the claim elements add—specifically, whether, in the Supreme Court’s terms, they identify an ‘inventive concept’ in the application of the ineligible matter to which (by assumption at stage two) the claim is directed.” *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). In considering whether a claim is directed to an abstract idea, we acknowledge, as did the Court in *Mayo*, “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 566 U.S. at 71. We, therefore, look to: (1) whether the claims focus on a specific means or method that improves the relevant technology, or (2) are directed to a result or effect that itself is the abstract idea, in which the claims merely invoke generic processes and machinery. *See Enfish*, 822 F.3d at 1336.

*Step One: Whether the Claims Are Directed to a Patent-Ineligible Concept (Abstract Idea)*

The Examiner finds:

Claim 1 rejected under 35 U.S.C. [§] 101 because the claimed invention is directed to non-statutory subject matter. Based upon consideration of all of the relevant factors with respect to the claim as a whole, claim 1 is determined to be directed to an abstract idea, which is not considered statutory as defined in *Alice Corp v. CLS Bank*. The present claims are not directed toward significantly more than an abstract idea itself. Further, there are no limitations directed toward improvements to another technology or technical field; improvements to the functioning of the computer itself; or meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment. The claims should be amended to include limitations toward the technical field.

Final Action 8; Advisory Action 7–8.

We do not agree with the Examiner's findings and agree with Appellants that the rejection fails to identify the abstract idea of claim 1. Accordingly, we reverse the 35 U.S.C. § 101 rejection of claim 1. Because we do not find that the claim is directed to an abstract idea we do not need to analyze or consider the claim under step two.

*Rejection under 35 U.S.C. § 103 and double -patenting*

It is noted that the Examiner added the Hsu reference to the obviousness rejections of claims 1, 3–10, 11, 12, 14–23, 25–34, and 36–45. Advisory Action 8–23. The Hsu reference was later removed from the obviousness rejections. Answer 2–4, 6–18.

Appellants contend the Gutman reference does not qualify as prior art to the claimed invention. Appeal Brief 8. Appellants argue:

The Gutman publication was filed on May 4, 2010, claiming priority to U.S. Prov'l Pat. Appl. No. 61/175,304 ("the Gutman provisional").<sup>3</sup> Appellants' priority date of November 6, 2009 is prior to the Gutman publication's actual filing date of May 4, 2010. For at least this reason, the cited teachings of the Gutman publication are prior art only to the extent that the information relied upon is actually disclosed in the Gutman provisional.

Appeal Brief 9.

Appellants argue the obviousness rejections based upon Gutman are invalid because the information relied upon by the Examiner, for example paragraphs 92, 93, and 99 are not found in the Gutman provisional. Appeal Brief 10. Appellants contend:

[t]he Gutman provisional thus discloses that blurriness may be used as a "quality parameter" for "selecting post-processing filters to be used on a video" (p. 4, 11. 11-16; emphasis added).

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<sup>3</sup> Gutman provisional application was filed on May 4, 2009.



**This discussion includes no mention of encoding.** Such disclosure of selecting post-processing filters fails to teach the “information relied upon” by the Office: i.e., “blocks of a frame are encoded based on a blurring filter being applied to the block of the frame.”

Appeal Brief 11.

The Examiner disagrees with Appellants’ contention and states:

[t]he [E]xaminer would like to note that this application has previously been through the board of appeals. The [E]xaminer has used the same prior art reference as with the board of appeals. The [E]xaminer would further note that the board has affirmed the results deemed by the [E]xaminer using the prior art of Gutman on 3/25/2016.

Answer 18.

Gutman’s prior art status was not an issue before the Board in the March 25, 2016 Decision and, therefore, the previous decision is not a validation of Gutman’s priority status. The Examiner finds, “[o]n page 4 of Gutman’s provisional application, he discloses blurring measurement which is sufficient evidence of prior art at the time of the invention with respect to the blurring information claimed by [A]pplicant.” Answer 18. The Examiner offers no further explanation. Reviewing the Gutman provisional application, we only find that Gutman discloses on page 4, “[i]n some embodiments of the invention, the objective quality measure is based on a weighed sum of grades for a plurality of different quality parameters, such as blockiness, blurriness, noise, haloing and color bias.”

It is not apparent that Gutman’s provisional supports the Examiner’s finding that Gutman disclosed “**encoding, in a video encoder (Fig 1, element 102), the frame based at least in part on the estimated blurriness level of the frame (Fig 3, element 312-314; [0092], lines 9-13; [0093], lines**

1-2; [0099], lines 1-2).” Answer 3; *see* the Gutman provisional 4. We understand that Gutman’s provisional incorporates by reference, publications that mention encoding, however, encoding in itself is notoriously well known in the technology. It is not evident that Gutman’s provisional discloses the association between the video encoding and the blurriness level estimation purported by the Examiner. We are constrained by the record before us and thus find Appellants’ arguments that Gutman does not qualify as prior art persuasive because of the lack of evidence to the contrary. Accordingly, we reverse the obviousness rejections of independent claims 1, 12, 23 and 34, as well as, the provisional double patenting rejection of claims 1, 12, 23 and 34.

#### DECISION

The Examiner’s provisionally nonstatutory obviousness-type double patenting rejection of claims 1, 12, 23, and 34 is reversed.

The Examiner’s 35 U.S.C. § 101 rejection of claim 1 is reversed.

The Examiner’s obviousness rejections of claims 1–45 and 47 are reversed.

REVERSED