

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LIGHTRICKS LTD.,
Petitioner,

v.

PLOTAGRAPH, INC. and SASCHA CONNELLY,
Patent Owner.

IPR2023-00152
Patent 10,558,342 B2

PETITIONER'S REQUEST FOR REHEARING

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I. INTRODUCTION

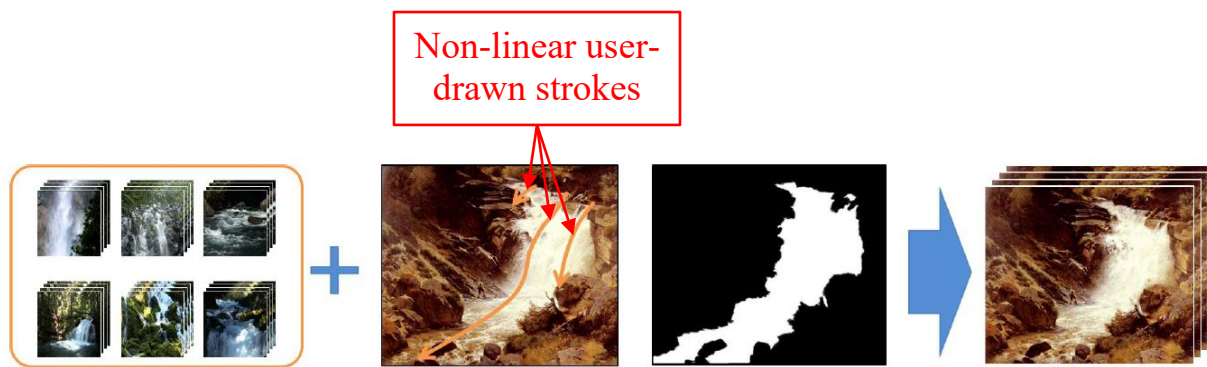
In denying Petitioner’s Ground 2, the Board overlooked or misapprehended the Petition’s mapping of Okabe’s FIG. 1’s matte-specified region of interest to limitation [7c]’s first set of pixels. The Board also overlooked or misapprehended, with respect to limitation [7d], the Petition’s reliance on the IMU-Okabe *combination* to shift that first set of pixels along a non-linear path by moving IMU’s Shepard’s Distortion control point along—and with speed and direction specified by—Okabe’s user-drawn non-linear stroke. Instead, the Board improperly attacked Okabe in isolation. Rehearing is appropriate.

II. GROUND 2 SHOULD BE INSTITUTED

A. “selecting a first set of pixels...”: The Board Overlooked or Misapprehended Petitioner’s Reliance on Okabe.

The Board “question[ed]” whether the IMU-Okabe Combination meets limitation [7c], which recites “selecting a first set of pixels extending along a length of the non-linear pathway and away from the first starting point.” Paper 7 (“DI”), 20. But the Board assessed only Petitioner’s argument that the IMU-Okabe Combination allows a user to select “any or all pixels of the image.” *Id.* (“assuming for the sake of argument” that “selecting ‘any or all pixels of the image’ is sufficient to satisfy the claimed selecting of a first set of pixels extending along a non-linear pathway”).

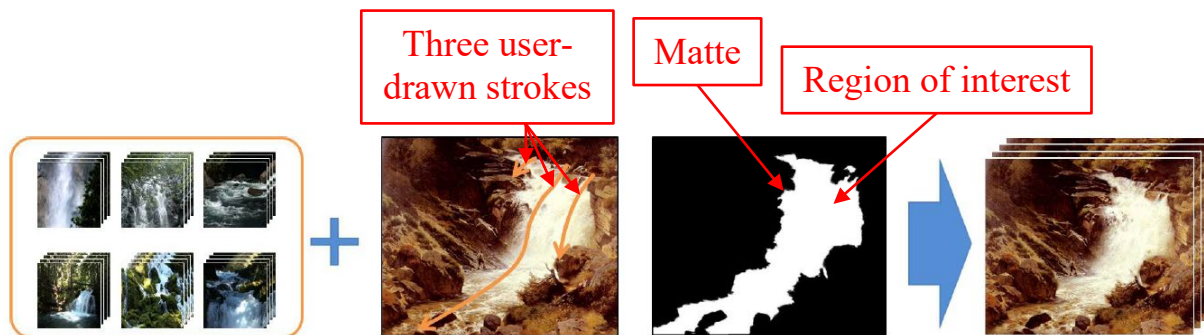
In doing so, the Board overlooked or misapprehended the full scope of Petitioner’s reliance on Okabe’s FIG. 1 and associated description to explain how the IMU-Okabe Combination meets limitation [7c]. Specifically, with respect to limitation [7b] (“receiving, through the user interface, an indication of a non-linear pathway extending away from the first starting point”), the Petition showed that, “in the IMU-Okabe Combination,” the “Shepard’s Distortion control point[s]” from IMV6 move in the direction and speed of the “strokes” from Okabe. Paper 1 (“Pet.”), 62 (citing Okabe, 7, 3; Pet., 59). Regarding these “strokes,” the Board correctly acknowledged Petitioner’s reliance on Okabe’s FIG. 1 as showing three such “Non-linear user-drawn strokes”—i.e., limitation [7b]’s claimed “non-linear pathway.” DI, 19-20 (citing Pet., 62-63). Indeed, the Petition stated as much and included matching annotations on Okabe’s FIG. 1 as shown:



Pet., 62-63.

With respect to limitation [7c], by contrast, the Board failed to acknowledge Petitioner’s similar reliance on Okabe’s FIG. 1. Although the Board discussed Petitioner’s argument that the “matte” utilized in the IMU-Okabe Combination, like

in IMV6 and Okabe's system, allows users to "select any or all pixels of the image to be included in [a to-be-animated] region of interest, including pixels extending along a length of the stroke and away from the stroke's starting point" (*e.g.*, Pet., 63-64, 59), such was the full extent of the Board's discussion. DI, 20. Petitioner, however, additionally relied on Okabe's FIG. 1 as being such a matte, which, as depicted, indeed "specif[ies] a region of interest (i.e., a to-be-animated region) in white that includes pixels extending along lengths of [the aforementioned] three user-drawn strokes and away from each stroke's starting point"—i.e., limitation [7c]'s claimed "first set of pixels." Pet., 64 (citing Okabe, 1, 2). And, like above, Petitioner provided annotations to Okabe's FIG. 1 stating the same:



Id., 64. Such a matte-specified region of interest in Okabe's FIG. 1, though overlooked or misapprehended by the Board, dispels any "question" on whether the IMU-Okabe Combination meets limitation [7c].

B. “shifting the first set of pixels along the non-linear pathway”: The Board Overlooked or Misapprehended Petitioner’s IMU-Okabe Combination.

With respect to limitation [7d] (“shifting the first set of pixels along the non-linear pathway...”), the Board did not discuss Petitioner’s arguments on how IMU teaches creating an animation by moving a Shepard’s Distortion “control point” over time. Pet., 60-61; DI, 21-22. Nor, for limitation [7d], did the Board address the Petition’s reliance on Okabe’s “[n]on-linear user-drawn strokes” *as utilized in the IMU-Okabe Combination*, which “specif[y] ... a nonlinear direction and speed” of that Shepard’s Distortion control point. Pet., 62, 65; DI, 21-22 (addressing Okabe in isolation: “there is no indication that [Okabe’s strokes] define pathways that pixels are shifted along.”).

This combination, however, was precisely what the Petition relied on to show how the IMU-Okabe Combination meets limitation [7d]’s “shifting the first set of pixels *along the non-linear pathway*” (emphasis added). Specifically, as the Petition showed, pixels are shifted in the IMU-Okabe Combination like in IMV6: “by using Shepard’s Distortion to place and move a ‘control point’ on an image frame-by-frame.” Pet., 64-65 (citing IMU-Distorting, 17-18, 59, 19-20); *accord id.*, 59-62. But unlike in IMV6, the user specifies the control point’s direction and speed across the animation *graphically* rather than *textually*: by drawing a non-linear stroke as taught in Okabe’s FIG. 1, which, like the written commands described in

IMU, specifies the control point's direction and speed over time. *Id.*, 59 (“[T]he IMU-Okabe Combination enables a user to achieve the same result by drawing non-linear strokes on the image to specify the direction and speed of corresponding Shepard's Distortion control points across the animation....” (citing IMU-Distorting, 17-18, 59, 19-20; Okabe, 7, 3)), 60-62, 64-65. None of such control-point-based animation in the IMU-Okabe Combination, however, was discussed by the Board. *See* DI, 21-22.

To the extent the Board's assessment was more so that a POSITA would not have recognized or known how to use Okabe's strokes to define a control point's direction and speed, such likewise overlooked or misapprehended Petitioner's reliance on a POSITA's background knowledge of AECS6, which includes an essentially identical feature for defining the direction and speed of a Deform pin. Pet., 57-58 (“Indeed, AECS6 was another such ‘readily available image manipulation program’ that combined the ability to create a looping animation of effects applied to still images (e.g., the Puppet effect) with simple and graphical user commands for defining such animation (e.g., allowing a user to... create motion paths between keyframes for the Deform pins...), confirming a POSITA would have been—and in fact was—motivated to make such a combination of features.” (citing, *inter alia*, AEM, 218-19, 187-89, 193-95)).

The Board did discuss, with respect to limitation [7d], the '342 Patent's disclosure cited in the Petition on pages 64-65 that, "in at least one embodiment, the software architecture uses a warping function, such as Shepard's distortion" ('342 Patent, 8:30-32), as well as this disclosure's preceding context that, "[i]n at least one embodiment, the software architecture 200 uses alpha blending when shifting the pixels from the starting point to the ending point" such as "utiliz[ing] a sin, cosine, or linear alpha blend to shift the set of pixels" (*id.*, 8:26-30). DI, 21. The Board, however, discounted this disclosure as "fleeting," finding that "Shepard's distortion is [not] the only technique for performing the claimed shifting of the first set of pixels,"¹ and that the disclosure is "[i]nsufficient to establish that any prior art disclosure of Shepard's distortion would teach the claimed shifting." *Id.*

Petitioner never contended that "***any*** prior art disclosure of Shepard's distortion would teach the claimed shifting." *See* DI, 21 (emphasis added). Instead,

¹ Petitioner never argued, nor had to further show, that "Shepard's distortion is the ***only*** technique for performing the claimed shifting" to establish that performing Shepard's distortion on pixels would be considered "shifting" those pixels as claimed. *See* DI, 21 (emphasis added); Pet., 64 ("[T]he claimed 'shifting' ***can be*** performed by using, ***for example***, 'a warping function, ***such as*** Shepard's distortion.'" (emphasis added) (quoting '342 Patent, 8:30-32)).

Petitioner, as stated above, asserted specifically that “IMV6’s user shifts pixels as claimed by using Shepard’s Distortion to place and move a ‘control point’ on an image frame-by-frame in the user’s specified direction and speed,” and that it would have been obvious in “the IMU-Okabe Combination [to] allow[] a user to specify [the] control point’s non-linear direction and speed by drawing a corresponding non-linear ‘stroke[]’ from Okabe on an image—the claimed ‘non-linear pathway.’” Pet., 64-65; *accord id.*, 55-59.

Beyond that, the Board overlooked or misapprehended that the ’342 Patent’s disclosure on Shepard’s distortion—even if “fleeting” (D.I., 21)—is clear: Shepard’s Distortion can be “use[d]” for “shifting the pixels from the starting point to the ending point.” ’342 Patent, 8:26-32; Pet., 64. And as the Petition showed through IMU, Shepard’s distortion was a **known** technique that involved movement of a control point on an image “to distort the image in terms of ‘local’ effects.” Pet., 50-51 (internal citations omitted) (quoting IMU-Distorting, 59). Particularly in view of the ’342 Patent’s admission above, the IMU-Okabe Combination’s use of Okabe’s user-drawn non-linear strokes to control the “direction and speed” of that control point (*see, e.g., id.*, 59, 62-63, 65) meets—let alone establishes a reasonable likelihood of meeting—the claimed “shifting.” Indeed, Patent Owner did not argue otherwise. *See generally* Paper 6 (“POPR”) (not addressing Shepard’s distortion).

III. CONCLUSION

For the above reasons, the Board should grant rehearing and institute *inter partes* review.

Dated: July 20, 2023

/Robert Greeson/
Robert Greeson (Reg. No. 52,966)

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §42.6(e), the undersigned certifies that on July 20, 2023, a copy of Petitioner's Request for Rehearing was served on Patent Owner via email (by consent) to:

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