THE HONORABLE TANA LIN

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

REALD SPARK, LLC,

Plaintiff,

v.

MICROSOFT CORPORATION,

Defendant.

Case No. 2:22-cv-00942-TL

**JOINT CLAIM CONSTRUCTION AND PREHEARING STATEMENT**

Pursuant to the Order Setting Jury Trial Date and Related Dates, Dkt. No. 37, and Rule 132 of the Local Patent Rules, the Parties hereby submit the Joint Claim Construction and Prehearing Statement regarding U.S. Patent No. 10,740, 985 ("the '985 Patent").

## I. L.P.R. 132(a) – Agreed Constructions

The parties were unable to come to agreement on the construction of any terms, phrases or clauses.

## II. L.P.R. 132(b) – Proposed Constructions of Disputed Terms

The parties provide their proposed constructions and their identification of the supporting evidence in the chart attached as Exhibit A.

## III. L.P.R. 132(c) – Ten Most Important Disputed Claim Terms

The parties agree that the ten most important terms are identified in order in the table



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in Appendix A. Those terms, in order, are:

1. "machine learning algorithm" [Claims 1, 16, 18, and 19]
2. "input patches" [Claims 1, 16, 18, and 19]
3. "output patches" [Claims 1, 16, 18, and 19]
4. "range of possible digital representations of the head region" [Claims 1, 16, 18, and 19]
5. "information about a target feature" [Claim 16]
6. "target portion" [Claim 16]
7. "first machine learning algorithm comprises one or more of the following: a neural network; a support vector machine; and a generative adversarial network (GAN)" [Claim 10]
8. "target feature comprises one or more of the following [A, B, C, D, E, and F]" [Claim 12]
9. "target feature comprises [region 1] and/or [region 2] and/or [region 3] and/or [region 4] and/or [region 5]" [Claim 18]
10. "compressed representation comprises one or more of the following [A; B; C and/or D; E]" [Claim 19]

## IV. L.P.R. 132(d) – Anticipated Time for Hearing

The parties propose 120 minutes per side, for a total of 240 minutes inclusive of tutorials, if no live testimony is presented at the hearing. If, as set forth in Section VI below, the Court would find live testimony helpful, Plaintiff proposes 150 minutes per side, for a total of 300 minutes.

## V. L.P.R. 132(e) – Proposed Order of Presentation at Hearing



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The parties propose that each side would first provide a preliminary statement on the case, which will include a technical tutorial, with Plaintiff to present first. The parties would then argue the disputed terms in the order identified in Section III, above, with Plaintiff and Defendant alternating presenting argument first on each disputed term (i.e., Plaintiff to present first on the first term, then Defendant to present first on the second term, Plaintiff to present first on the third term, etc.).

## VI. L.P.R. 132(f) – Live Testimony at Hearing

Unless instructed by the Court, the parties do not intend to provide live testimony at the hearing. To the extent that the parties dispute any terms are indefinite, expert testimony will be submitted in written form.

## VII. L.P.R. 132(g) – Tutorial on Subject Matter

The parties agree that a technical tutorial is appropriate, and that, as set forth in Section V, such tutorial occur prior to the parties presenting argument on the construction of the disputed terms.

## VIII. L.P.R. 132(h) – Pre-Hearing Conference

The parties submit that a pre-hearing conference is not necessary.

## IX. L.P.R. 132(i) – Independent Expert

The parties submit that an independent court-appointed expert is not necessary.



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DATED: April 7, 2023.

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# APPENDIX A

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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| 1 | "**machine learning algorithm**"<br>Claims 1, 16, 18, and 19 | Proposed Construction:<br>"an algorithm that is able to learn from data"<br><br><u>Intrinsic Evidence:</u><br><br>'985 Patent, Claims 1, 2, 5, 9-11, 15-19.<br><br>'985 Patent, Abstract.<br><br>'985 Patent, Figures 3-9, 11, 12, 14, 15<br><br>'985 Patent, 2:4-43; 7:55-64; 9:6-12; 9:39-56; 9:65-10:19; 10:22-36; 10:49-11:36; 16:24-44; 18:21-32; 20:6-21:8; 21:25-22:47.<br><br>The intrinsic evidence also includes the materials incorporated by reference in the above citations, and more specifically:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001). | Proposed Construction:<br>"iterative algorithm that trains itself to produce output in response to a given input"<br><br><u>Intrinsic Evidence:</u><br><br>'985 Patent: Abstract; 1:59-2:43; 3:7-45; 7:14-26; 7:55-8:62; 9:39-44; 10:20-67; 11:1-36; 14:45-67; 15:46-16:44; 16:45-17:18; 19:47-21:8; 21:9-45; 21:46-22:47; 22:63-67; 23:1-7; 23:34-38; 23:10-65; 23:66-24:2; 24:3-24:6; 24:7-24:12; 25:22-41; Fig. 9; Fig. 14; Fig 15; claim 5; claim 9; claim 11; claim 15; claim 17.<br><br>File History: Response to Office Action, Feb. 21, 2020 (RealD_00002703-2714; RealD_00006124-6135); Office Action, Nov. 22, 2019 (RealD_00002636-2650; RealD_00006057-6071); PCT Notification, Search Report, and Written Opinion, Oct. 16, 2018 (RealD_00000751-770; RealD_00004109-4127); Restriction Notice, Aug. 15, 2019 (RealD_00006037-6041), Response to Restriction Notice, Oct. 15, 2019 (RealdD_00006043-6056); DeepWarp (RealD_00006375-6392); Gaze |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995). | Correction (RealD_00006393-6398); Learning to Look Up (RealD_00003898-3909); WO 2016/132148 (RealD_00005490-5495; 5499-5506; 5524-5527; 5584-5585).<br><br>It appears that RealD has produced different version of the File History at RealD_00000631-3019; RealD_00003020-2722; and RealD_00003723-6517. For all File History cites in this and other terms, for ease of reference, Microsoft cites to the latter bates range, but reserves the right to rely on corresponding materials in the other File History productions.<br><br>Dictionary/Treatise Definitions:<br>Deep Learning, Ian Goodfellow, Yoshua Bengio, and Aaron Corville, (Massachusetts Institute of Technology, 2016) (MSFT_00002124-00002146).<br><br>Machine Learning, A Probabilistic Perspective, Kevin P. Murphy (Massachusetts Institute of Technology, 2012) (MSFT_00002147-00002152). |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>To the extent this information is not considered "intrinsic," it should be understood that Plaintiff reserves the right to rely on this material as "extrinsic" evidence.<br><br>'985 Patent Prosecution History, Amendments to the Claims, filed 10/26/2018 at Claims 1, 6, 10, 11, 12, 13, 22, 23, 24, 25, 26, 27, 29, 33.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 10/15/2019 at Claims 1, 6, 10, 11, 12, 13, 22, 23, 24, 25, 26, 27, 29, 33. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | '985 Patent Prosecution History, Listing of Claims, filed 02/21/2020 at 1, 6, 10, 11, 12, 27, 33, 37, 38, 39.<br><br>'985 Patent Prosecution History, Applicant Remarks, filed 02/21/2020 at Pages 10, 11.<br><br>Plaintiff also reserves the right to rely on any of Defendant's intrinsic evidence.<br><br><u>Extrinsic Evidence:</u><br><br>As noted above, to the extent the materials incorporated by reference are not considered "intrinsic" evidence, Plaintiff reserves the right to rely on them as extrinsic evidence. Those material include the following:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001). | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>Dictionary/Treatise Definition:<br>Deep Learning, Ian Goodfellow, Yoshua Bengio, and Aaron Corville, (Massachusetts Institute of Technology, 2016) (MSFT_00002124-00002146).<br><br>Plaintiff also reserves the right to rely on any of Defendant's extrinsic evidence. | |
| 2 | "**input patches**"<br>Claims 1, 16, 18, and 19 | Proposed Construction:<br>Plain and ordinary meaning<br><br>Intrinsic Evidence:<br><br>'985 Patent, Claims 1, 16-19.<br><br>'985 Patent, Figures 3-6, 11, 14. | Proposed Construction:<br>"patches of the original image"<br><br>Intrinsic Evidence:<br>'985 Patent: 1:49-2:16; 2:54-67; 3:7-24; 6:66-7:26; 7:27-54; 7:65-8:5; 8:24-:63; 9:13-29; 9:39-48; 11:37-12:61; 13:32-57; 14:16-44; 15:1-45; 15:46-56; 17:37-18:6; 19:40-47; 21:46-22:13; 22:50-23:7; 23:8-23:20; 23:21-27; 23:28-30; |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | '985 Patent, 1:59-2:16; 3:6-25; 6:66-7:25; 8:6-14; 8:45-56; 12:8-21; 13:37-57; 14:16-28; 14:32-36; 19:40-47; 21:56-67; 22:5-9.<br><br>The intrinsic evidence also includes the materials incorporated by reference in the above citations, and more specifically:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110. | 23:334-42; 24:48-62; 24:63-25:10; 25:22-35; 25:42-57; Fig. 3; Fig 4: Fig 5, Fig. 11, Fig 15; claim 2; claim 3; claim 5, claim 17;<br>File History: Response to Office Action, Feb. 21, 2020 (RealD_00006124-6135); Office Action, Nov. 22, 2019 (RealD_00006059-6070); PCT Notification, Search Report, and Written Opinion, Oct. 16, 2018 (RealD_00004116-4127); Restriction Notice, Aug. 15, 2019 (RealD_00006037-6041), Response to Restriction Notice, Oct. 15, 2019 (RealdD_00006043-6056); DeepWarp (RealD_00006375-6392); Gaze Correction (RealD_00006393-6398); Learning to Look Up (RealD_00003898-3909); WO 2016/132148 (RealD_00005490-5495; 5499-5506; 5524-5527; 5584-5585). |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | To the extent this information is not considered "intrinsic," it should be understood that Plaintiff reserves the right to rely on this material as "extrinsic" evidence.<br><br>'985 Patent Prosecution History, Amendments to the Claims, filed 10/26/2018 at Claims 1, 2, 3, 4, 6, 25, 33.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 10/15/2019 at Claims 1, 2, 3, 4, 6, 25, 33.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 02/21/2020 at 1, 3, 4, 6, 33, 37, 38, 39.<br><br>'985 Patent Prosecution History, Applicant Remarks, filed 02/21/2020 at Page 10, 11.<br><br>Plaintiff also reserves the right to rely on any of Defendant's intrinsic evidence.<br><br><u>Extrinsic Evidence:</u><br><br>As noted above, to the extent the materials incorporated by reference are not considered "intrinsic" evidence, Plaintiff reserves the right to rely on them as | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | extrinsic evidence. Those material include the following:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005). | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>Plaintiff also reserves the right to rely on any of Defendant's extrinsic evidence. | |
| 3 | "**output patches**" | Proposed Construction: | Proposed Construction: |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | Claims 1, 16, 18, and 19 | Plain and ordinary meaning<br><br><u>Intrinsic Evidence:</u><br><br>'985 Patent, Claims 1, 16-19.<br><br>'985 Patent, Figures 3-6, 11.<br><br>'985 Patent, 1:59-2:16; 6:66-7:6; 8:15-23; 8:45-9:38; 12:8-61; 14:29-44.<br><br>The intrinsic evidence also includes the materials incorporated by reference in the above citations, and more specifically:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using | "patches of the desired image"<br><br><u>Intrinsic Evidence:</u><br><br>'985 Patent: 1:49-2:16; 2:54-67; 3:7-24; 6:66-7:26; 7:27-54; 7:65-8:5; 8:24-:63; 9:13-29; 9:39-48; 11:37-12:61; 13:32-57; 14:16-44; 15:1-45; 15:46-56; 17:37-18:6; 19:40-47; 21:46-22:13; 22:50-23:7; 23:8-23:20; 23:21-27; 23:28-30; 23:334-42; 24:48-62; 24:63-25:10; 25:22-35; 25:42-57; Fig. 3; Fig. 4: Fig 5, Fig. 11, Fig 15; claim 2; claim 3; claim 5, claim 17.<br><br>File History: Response to Office Action, Feb. 21, 2020 (RealD_00006124-6135); Office Action, Nov. 22, 2019 (RealD_00006059-6070); PCT Notification, Search Report, and Written Opinion, Oct. 16, 2018 (RealD_00004116-4127); Restriction Notice, Aug. 15, 2019 (RealD_00006037-6041), Response to Restriction Notice, Oct. 15, 2019 (RealdD_00006043-6056); DeepWarp (RealD_00006375-6392); Gaze Correction (RealD_00006393-6398); Learning to Look Up (RealD_00003898-3909); WO |

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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161. | 2016/132148 (RealD_00005490-5495; 5499-5506; 5524-5527; 5584-5585). |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>To the extent this information is not considered "intrinsic," it should be understood that Plaintiff reserves the right to rely on this material as "extrinsic" evidence.<br><br>'985 Patent Prosecution History, Amendments to the Claims, filed 10/26/2018 at Claims 1, 6, 33.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 10/15/2019 at Claims 1, 6, 33.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 02/21/2020 at 1, 6, 33, 37, 38, 39.<br><br>'985 Patent Prosecution History, Applicant Remarks, filed 02/21/2020 at Page 10, 11.<br><br>Plaintiff also reserves the right to rely on any of Defendant's intrinsic evidence. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Extrinsic Evidence:<br><br>As noted above, to the extent the materials incorporated by reference are not considered "intrinsic" evidence, Plaintiff reserves the right to rely on them as extrinsic evidence. Those material include the following:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009). | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>Plaintiff also reserves the right to rely on any of Defendant's extrinsic evidence. | |
| 4 | "**range of possible digital representations of the head region**"<br>Claims 1, 16, 18, and 19 | Proposed Construction:<br>Plain and ordinary meaning<br><br><u>Intrinsic Evidence:</u><br><br>'985 Patent, Claims 1, 16-19.<br><br>Figures 1-4, 8.<br><br>'985 Patent, 2:4-8; 2:13-16; 6:47-65; 9:45-49; 10:10-19; 12:63-13:12;14:45-54; 14:62-67.<br><br>The intrinsic evidence also includes the materials incorporated by reference in the above citations, and more specifically:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision | Proposed Construction:<br>"range of possible digital representations of different positions and/or orientations of the head region"<br><br><u>Intrinsic Evidence:</u><br>'985 Patent: Abstract; 1:30-45; 2;59-16; 2:54-67; 4:19-32; 4:46-5:34; 6:12-61; 7:55-8:23; 8:38-9:29; 9:45-10:19; 14:45-15:19; 17:26-18:57; 19:10-22:13; 22:50-23:20; 24:48-25:10; 25:42-57; Fig. 1; Fig. 4; Fig. 13.<br><br>File History: Response to Office Action, Feb. 21, 2020 (RealD_00006124-6135); Office Action, Nov. 22, 2019 (RealD_00006059-6070); PCT Notification, Search Report, and Written Opinion, Oct. 16, 2018 (RealD_00004116-4127); Restriction Notice, Aug. 15, 2019 (RealD_00006037-6041), Response to Restriction Notice, Oct. 15, 2019 |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International | (RealdD_00006043-6056); DeepWarp (RealD_00006375-6392); Gaze Correction (RealD_00006393-6398); Learning to Look Up (RealD_00003898-3909); WO 2016/132148 (RealD_00005490-5495; 5499-5506; 5524-5527; 5584-5585). |

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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>To the extent this information is not considered "intrinsic," it should be understood that Plaintiff reserves the right to rely on this material as "extrinsic" evidence.<br><br>'985 Patent Prosecution History, Amendments to the Claims, filed 10/26/2018 at Claims 1, 34.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 10/15/2019 at Claims 1, 34. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | '985 Patent Prosecution History, Listing of Claims, filed 02/21/2020 at 1, 33, 37, 38, 39.<br><br>'985 Patent Prosecution History, Applicant Remarks, filed 02/21/2020 at Page 10, 11.<br><br>Plaintiff also reserves the right to rely on any of Defendant's intrinsic evidence.<br><br><u>Extrinsic Evidence:</u><br><br>As noted above, to the extent the materials incorporated by reference are not considered "intrinsic" evidence, Plaintiff reserves the right to rely on them as extrinsic evidence. Those material include the following:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001). | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>Plaintiff also reserves the right to rely on any of Defendant's extrinsic evidence. | |
| 5 | "**information about a target feature**"<br>Claim 16 | Proposed Construction:<br>Plain and ordinary meaning<br><br><u>Intrinsic Evidence:</u><br><br>'985 Patent, Claims 1, 16.<br><br>'985 Patent, Figures 1-5.<br><br>'985 Patent, 1:6-14; 6:62-65; 12:22-30; 12:53-61; 13:37-14:15; 25:23-41; 25:42-57.<br><br>The intrinsic evidence also includes the materials incorporated by reference in the above citations, and more specifically: | Proposed Construction:<br>"the target feature and information about that target feature"<br><br><u>Intrinsic Evidence:</u><br>'985 Patent: Abstract; 1:59-2:16; 2:54-67; 3:7-25; 4:19-32; 5:59-6:4; 7:36-45; 13:32-14:44; 15:1-45; 17:46-18:6; 21:46-22:12; 22:50-62; 23:8-27; 24:13-39; 24:48-67; 25:22-57; 25:22-57; 26:31-27:9; 27:56-62; 28:40-49; 29:6-30:39; claim 1; claim 2; claim 11; claim 17; claim 18; claim 19.<br><br>File History: Response to Office Action, Feb. 21, 2020 (RealD_00006124- |



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Microsoft Corporation v. RealD Spark, LLC
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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015. | 6135); Office Action, Nov. 22, 2019 (RealD_00006059-6070); PCT Notification, Search Report, and Written Opinion, Oct. 16, 2018 (RealD_00004116-4127); Restriction Notice, Aug. 15, 2019 (RealD_00006037-6041), Response to Restriction Notice, Oct. 15, 2019 (RealdD_00006043-6056); DeepWarp (RealD_00006375-6392); Gaze Correction (RealD_00006393-6398); Learning to Look Up (RealD_00003898-3909); WO 2016/132148 (RealD_00005490-5495; 5499-5506; 5524-5527; 5584-5585). |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>To the extent this information is not considered "intrinsic," it should be understood that Plaintiff reserves the right to rely on this material as "extrinsic" evidence. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | '985 Patent Prosecution History, Amendments to the Claims, filed 10/26/2018 at Claims 33, 35.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 10/15/2019 at Claims 33, 35.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 02/21/2020 at Claim 33.<br><br>'985 Patent Prosecution History, Applicant Remarks, filed 02/21/2020 at Page 11.<br><br>Plaintiff also reserves the right to rely on any of Defendant's intrinsic evidence.<br><br><u>Extrinsic Evidence:</u><br><br>As noted above, to the extent the materials incorporated by reference are not considered "intrinsic" evidence, Plaintiff reserves the right to rely on them as extrinsic evidence. Those material include the following:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>Plaintiff also reserves the right to rely on any of Defendant's extrinsic evidence. | |
| 6 | "**target portion**"<br>Claim 16 | Proposed Construction:<br>"A portion of the digital representation of a head region"<br><br><u>Intrinsic Evidence:</u><br><br>'985 Patent, Claims 1, 16.<br><br>'985 Patent, Figures 1-5, 8, 14. | Proposed Construction:<br>"target feature"<br><br><u>Intrinsic Evidence:</u><br>'985 Patent 13:37-39; 14:30-39; 19:40-47; 25:31-35.<br><br>File History: Response to Office Action, Feb. 21, 2020 (RealD_00006124-6135); Office Action, Nov. 22, 2019 |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | '985 Patent, 1:6-14; 6:62-65; 12:22-30; 12:53-61; 13:37-14:15; 14:29-44; 19:40-47; 25:23-41; 25:42-57.<br><br>The intrinsic evidence also includes the materials incorporated by reference in the above citations, and more specifically:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110. | (RealD_00006059-6070); PCT Notification, Search Report, and Written Opinion, Oct. 16, 2018 (RealD_00004116-4127); Restriction Notice, Aug. 15, 2019 (RealD_00006037-6041), Response to Restriction Notice, Oct. 15, 2019 (RealdD_00006043-6056); DeepWarp (RealD_00006375-6392); Gaze Correction (RealD_00006393-6398); Learning to Look Up (RealD_00003898-3909); WO 2016/132148 (RealD_00005490-5495; 5499-5506; 5524-5527; 5584-5585). |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | To the extent this information is not considered "intrinsic," it should be understood that Plaintiff reserves the right to rely on this material as "extrinsic" evidence.<br><br>'985 Patent Prosecution History, Amendments to the Claims, filed 10/26/2018 at Claim 33.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 10/15/2019 at Claim 33.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 02/21/2020 at Claim 33.<br><br>'985 Patent Prosecution History, Applicant Remarks, filed 02/21/2020 at Page 11.<br><br>Plaintiff also reserves the right to rely on any of Defendant's intrinsic evidence.<br><br><u>Extrinsic Evidence:</u><br><br>As noted above, to the extent the materials incorporated by reference are not considered "intrinsic" evidence, Plaintiff reserves the right to rely on them as extrinsic evidence. Those material include the following: | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>Plaintiff also reserves the right to rely on any of Defendant's extrinsic evidence. | |
| 7 | "**first machine learning algorithm comprises one or more of the following:** | Proposed Construction:<br>Plain and ordinary meaning | Proposed Construction:<br>*Indefinite* |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | **a neural network; a support vector machine; and a generative adversarial network (GAN)"**<br>Claim 10 | Intrinsic Evidence:<br><br>'985 Patent, Claim 10.<br><br>'985 Patent, Figures 3-9, 11, 12, 14, 15<br><br>'985 Patent, 2:4-43; 7:55-64; 9:6-12; 9:39-56; 9:65-10:19; 10:22-36; 10:49-11:36; 16:24-44; 18:21-32; 20:6-21:8; 21:25-22:47; 23:66-24:2.<br><br>The intrinsic evidence also includes the materials incorporated by reference in the above citations, and more specifically:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using | Intrinsic Evidence:<br>'985 Patent: Abstract; 1:59-2:43; 3:7-45; 7:14-26; 7:55-8:62; 9:39-44; 10:20-67; 11:1-36; 13:17-31; 13:45-57; 13:58-14-28; 14:45-67; 15:46-16:44; 16:45-17:18; 18:7-20; 21:67-22:5; 19:47-21:8; 21:9-45; 21:46-22:47; 22:63-67; 23:1-7; 23:34-38; 23:10-65; 23:66-24:2; 24:3-24:6; 24:7-24:12; 24:13-20; 24:43-47; 24:21-39; 25:11-1525:22-41; Fig. 9; Fig. 14; Fig 15; claim 5; claim 9; claim 11; claim 15; claim 17.<br><br>File History: Response to Office Action, Feb. 21, 2020 (RealD_00006124-6135); Office Action, Nov. 22, 2019 (RealD_00006059-6070); PCT Notification, Search Report, and Written Opinion, Oct. 16, 2018 (RealD_00004116-4127); Restriction Notice, Aug. 15, 2019 (RealD_00006037-6041), Response to Restriction Notice, Oct. 15, 2019 (RealdD_00006043-6056); DeepWarp (RealD_00006375-6392); Gaze Correction (RealD_00006393-6398); Learning to Look Up (RealD_00003898-3909); WO 2016/132148 (RealD_00005490-5495; 5499-5506; 5524-5527; 5584-5585). |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>To the extent this information is not considered "intrinsic," it should be understood that Plaintiff reserves the right to rely on this material as "extrinsic" evidence.<br><br>'985 Patent Prosecution History, Amendments to the Claims, filed 10/26/2018 at Claim 11.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 10/15/2019 at Claim 11.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 02/21/2020 at Claim 11.<br><br>'985 Patent Prosecution History, Applicant Remarks, filed 02/21/2020 at Page 11.<br><br>Plaintiff also reserves the right to rely on any of Defendant's intrinsic evidence. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Extrinsic Evidence:<br><br>As noted above, to the extent the materials incorporated by reference are not considered "intrinsic" evidence, Plaintiff reserves the right to rely on them as extrinsic evidence. Those material include the following:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the | |

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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Fly," Hoi School of Information Systems, Singapore Management University.<br><br>Expert Declaration and/or live testimony by Dr. Eli Saber, PhD.<br><br>Plaintiff also reserves the right to rely on any of Defendant's extrinsic evidence. | |
| 8 | "**target feature comprises one or more of the following [A, B, C, D, E, and F]**"<br>Claim 12 | Proposed Construction:<br>Plain and ordinary meaning<br><br><u>Intrinsic Evidence:</u><br><br>'985 Patent, Claims 1, 12, 16, 18.<br><br>'985 Patent, Figures 1-5.<br><br>'985 Patent, 1:6-14; 6:62-65; 12:22-30; 12:53-61; 13:37-14:15; 24:13-20; 25:23-41; 25:42-57.<br><br>The intrinsic evidence also includes the materials incorporated by reference in the above citations, and more specifically:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9. | Proposed Construction:<br>*Indefinite*<br><br><u>Intrinsic Evidence:</u><br>'985 Patent: 13:17-31; 13:45-57; 13:58-14-28; 18:7-20; 21:67-22:5; 23:66-24:2; 24:3-6; 24:13-20; 24:43-47; 24:21-39; 25:11-15; claim 11.<br><br>File History: Response to Office Action, Feb. 21, 2020 (RealD_00006124-6135); Office Action, Nov. 22, 2019 (RealD_00006059-6070); PCT Notification, Search Report, and Written Opinion, Oct. 16, 2018 (RealD_00004116-4127); Restriction Notice, Aug. 15, 2019 (RealD_00006037-6041), Response to Restriction Notice, Oct. 15, 2019 (RealdD_00006043-6056); DeepWarp (RealD_00006375-6392); Gaze Correction (RealD_00006393-6398); |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007). | Learning to Look Up (RealD_00003898-3909); WO 2016/132148 (RealD_00005490-5495; 5499-5506; 5524-5527; 5584-5585). |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>To the extent this information is not considered "intrinsic," it should be understood that Plaintiff reserves the right to rely on this material as "extrinsic" evidence.<br><br>'985 Patent Prosecution History, Amendments to the Claims, filed 10/26/2018 at Claim 14. | |

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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | '985 Patent Prosecution History, Listing of Claims, filed 10/15/2019 at Claim 14.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 02/21/2020 at Claim 14.<br><br>'985 Patent Prosecution History, Applicant Remarks, filed 02/21/2020 at Page 11.<br><br>Plaintiff also reserves the right to rely on any of Defendant's intrinsic evidence.<br><br><u>Extrinsic Evidence:</u><br><br>As noted above, to the extent the materials incorporated by reference are not considered "intrinsic" evidence, Plaintiff reserves the right to rely on them as extrinsic evidence. Those material include the following:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001). | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995). | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>Expert Declaration and/or live testimony by Dr. Eli Saber, PhD.<br><br>Plaintiff also reserves the right to rely on any of Defendant's extrinsic evidence. | |
| 9 | "**target feature comprises [region 1] and/or [region 2] and/or [region 3] and/or [region 4] and/or [region 5]**" Claim 18 | Proposed Construction:<br>Plain and ordinary meaning<br><br>Intrinsic Evidence:<br><br>'985 Patent, Claims 1, 12, 16, 18.<br><br>'985 Patent, Figures 1-5. | Proposed Construction:<br>*Indefinite*<br><br>Intrinsic Evidence:<br>'985 Patent 13:17-31; 13:45-57; 13:58-14-28; 18:7-20; 21:67-22:5; 23:66-24:2; 24:3-6; 24:13-20; 24:43-37; 24:21-39; 25:11-15; claim 11. |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | '985 Patent, 1:6-14; 6:62-65; 12:22-30; 12:53-61; 13:37-14:28; 24:13-39; 25:23-41; 25:42-57.<br><br>The intrinsic evidence also includes the materials incorporated by reference in the above citations, and more specifically:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110. | File History: Response to Office Action, Feb. 21, 2020 (RealD_00006124-6135); Office Action, Nov. 22, 2019 (RealD_00006059-6070); PCT Notification, Search Report, and Written Opinion, Oct. 16, 2018 (RealD_00004116-4127); Restriction Notice, Aug. 15, 2019 (RealD_00006037-6041), Response to Restriction Notice, Oct. 15, 2019 (RealdD_00006043-6056); DeepWarp (RealD_00006375-6392); Gaze Correction (RealD_00006393-6398); Learning to Look Up (RealD_00003898-3909); WO 2016/132148 (RealD_00005490-5495; 5499-5506; 5524-5527; 5584-5585). |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | To the extent this information is not considered "intrinsic," it should be understood that Plaintiff reserves the right to rely on this material as "extrinsic" evidence.<br><br>'985 Patent Prosecution History, Amendments to the Claims, filed 10/26/2018 at Claim 15.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 10/15/2019 at Claim 15.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 02/21/2020 at Claim 38.<br><br>'985 Patent Prosecution History, Applicant Remarks, filed 02/21/2020 at Page 10.<br><br>Plaintiff also reserves the right to rely on any of Defendant's intrinsic evidence.<br><br><u>Extrinsic Evidence:</u><br><br>As noted above, to the extent the materials incorporated by reference are not considered "intrinsic" evidence, Plaintiff reserves the right to rely on them as extrinsic evidence. Those material include the following: | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>Expert Declaration and/or live testimony by Dr. Eli Saber, PhD.<br><br>Plaintiff also reserves the right to rely on any of Defendant's extrinsic evidence. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| 10 | "**compressed representation comprises one or more of the following [A; B; C and/or D; E]**" Claim 19 | Proposed Construction:<br>Plain and ordinary meaning<br><br>Intrinsic Evidence:<br><br>'985 Patent, Claims 1, 16, 19.<br><br>'985 Patent, 18:7-20; 24:43-46; 25:11-15.<br><br>The intrinsic evidence also includes the materials incorporated by reference in the above citations, and more specifically:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015). | Proposed Construction:<br>*Indefinite*<br><br>Intrinsic Evidence:<br>'985 Patent 3:4-5; 13:17-31; 13:45-57; 13:58-14-28; 15:57-63; 18:7-20;18:42-49; 21:67-22:5; 23:66-24:2; 24:3-6; 24:13-20; 24:43-37; 24:21-39; 25:11-15; claim 11.<br><br>File History: Response to Office Action, Feb. 21, 2020 (RealD_00006124-6135); Office Action, Nov. 22, 2019 (RealD_00006059-6070); PCT Notification, Search Report, and Written Opinion, Oct. 16, 2018 (RealD_00004116-4127); Restriction Notice, Aug. 15, 2019 (RealD_00006037-6041), Response to Restriction Notice, Oct. 15, 2019 (RealdD_00006043-6056); DeepWarp (RealD_00006375-6392); Gaze Correction (RealD_00006393-6398); Learning to Look Up (RealD_00003898-3909); WO 2016/132148 (RealD_00005490-5495; 5499-5506; 5524-5527; 5584-5585). |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110.<br><br>Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009). | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University.<br><br>To the extent this information is not considered "intrinsic," it should be understood that Plaintiff reserves the right to rely on this material as "extrinsic" evidence.<br><br>'985 Patent Prosecution History, Amendments to the Claims, filed 10/26/2018 at Claim 21.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 10/15/2019 at Claim 21.<br><br>'985 Patent Prosecution History, Listing of Claims, filed 02/21/2020 at Claim 39.<br><br>'985 Patent Prosecution History, Applicant Remarks, filed 02/21/2020 at Page 10.<br><br>Plaintiff also reserves the right to rely on any of Defendant's intrinsic evidence.<br><br><u>Extrinsic Evidence:</u> | |

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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | As noted above, to the extent the materials incorporated by reference are not considered "intrinsic" evidence, Plaintiff reserves the right to rely on them as extrinsic evidence. Those material include the following:<br><br>Viola and Jones, "Rapid Object Detection using a Boosted Cascade of Simple Features" CVPR 2001, pp. 1-9.<br><br>Cootes et al., "Active shape models-their training and application," Computer Vision and Image Understanding, 61(1):38-59 (2001).<br><br>Cootes et al., "Active appearance models," IEEE Trans. Pattern Analysis and Machine Intelligence, 23(6):681-685 (2001).<br><br>Kononenko et al., "Learning to Look Up: Realtime Monocular Gaze Correction Using Machine Learning," Computer Vision and Pattern Recognition, pp. 4667-4675 (2015).<br><br>Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," International Journal of Computer Vision 60 (2), pp. 91-110. | |

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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Dalal et al., "Histograms of Oriented Gradients for Human Detection," Computer Vision and Pattern Recognition, pp. 886-893 (2005).<br><br>Yang and Ramanan, "Multi-scale recognition with DAG-CNNs," ICCV 2015.<br><br>Ozuysal et al., "Fast Keypoint Recognition in Ten Lines of Code," Computer Vision and Pattern Recognition, pp. 1-8 (2007).<br><br>Ho, "Random Decision Forests," Proceedings of the 3rd International Conference on Document Analysis and Recognition, Montreal, QC, 14-16, pp. 278-282 (Aug. 1995).<br><br>Drucker et al., "Support Vector Regression Machines,' Advances in Neural Information Processing Systems 9, IPS 1996, pp. 155-161.<br><br>Saffari, et al., "On-line Random Forests," 3rd IEEE ICCV Workshop on On-line Computer Vision (2009).<br><br>Sahoo, et al., "Online Deep Learning: Learning Deep Neural Networks on the Fly," Hoi School of Information Systems, Singapore Management University. | |



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| | Claim Language | Plaintiff's Proposed Construction and Evidence in Support | Defendant's Proposed Construction and Evidence in Support |
|---|---|---|---|
| | | Expert Declaration and/or live testimony by Dr. Eli Saber, PhD.<br><br>Plaintiff also reserves the right to rely on any of Defendant's extrinsic evidence. | |

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