remote sensing

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Correction

Correction: Koga, Y., *et al.* A Method for Vehicle Detection in High-Resolution Satellite Images That Uses a Region-Based Object Detector and Unsupervised Domain Adaptation. *Remote Sensing* 2020, *12*, 575

Yohei Koga [1,*], Hiroyuki Miyazaki [2] and Ryosuke Shibasaki [2]

[1] Independent Researcher

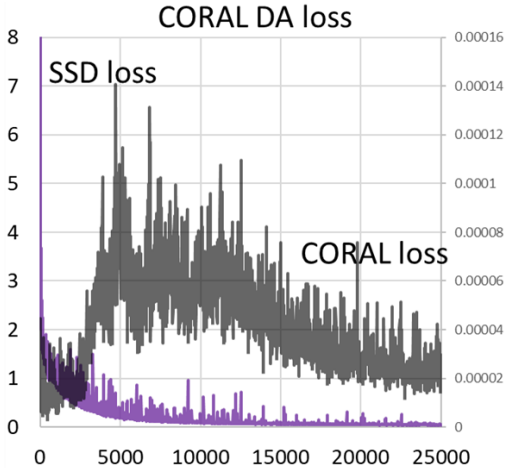
[2] Center for Spatial Information Science (CSIS), University of Tokyo, 5-1-5 Kashiwanoha, Kashiwa-shi, Chiba 2778568, Japan; heromiya@csis.u-tokyo.ac.jp (H.M.); shiba@csis.u-tokyo.ac.jp (R.S.)

* Correspondence: monotaro333@gmail.com; Tel.: +81-50-6871-0026

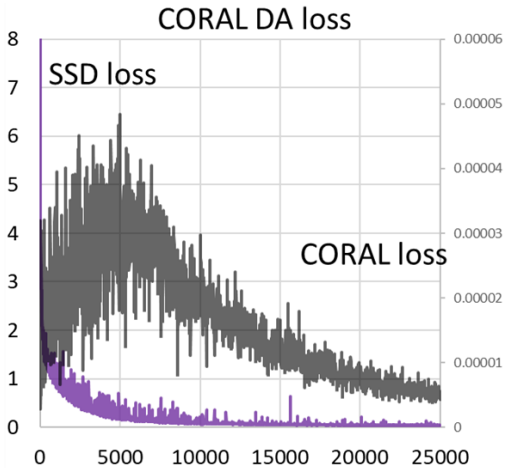
Received: 18 March 2020; Accepted: 25 March 2020; Published: 26 March 2020

The authors wish to make the following corrections to this paper [1]:

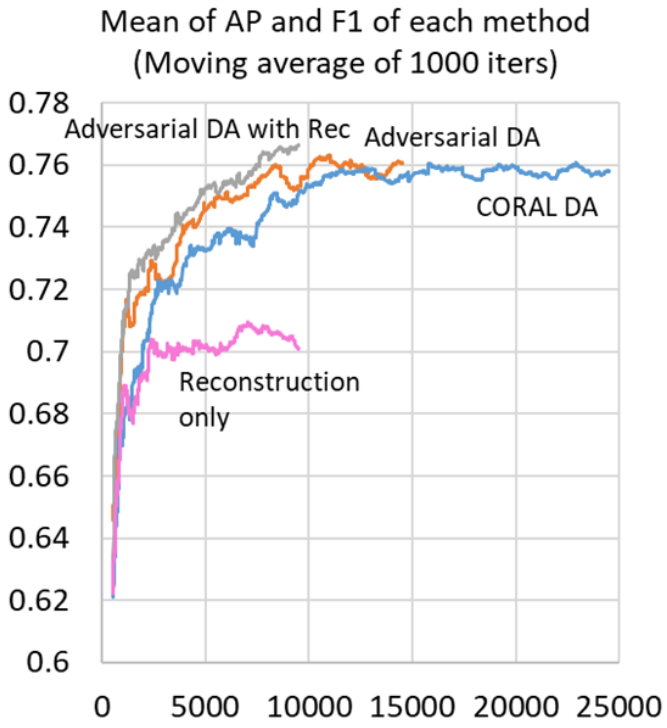
The authors inadvertently mistook the experimental results of combination of CORAL DA and adversarial DA for results of CORAL DA. Due to this mix-up, replace Figure 9a:



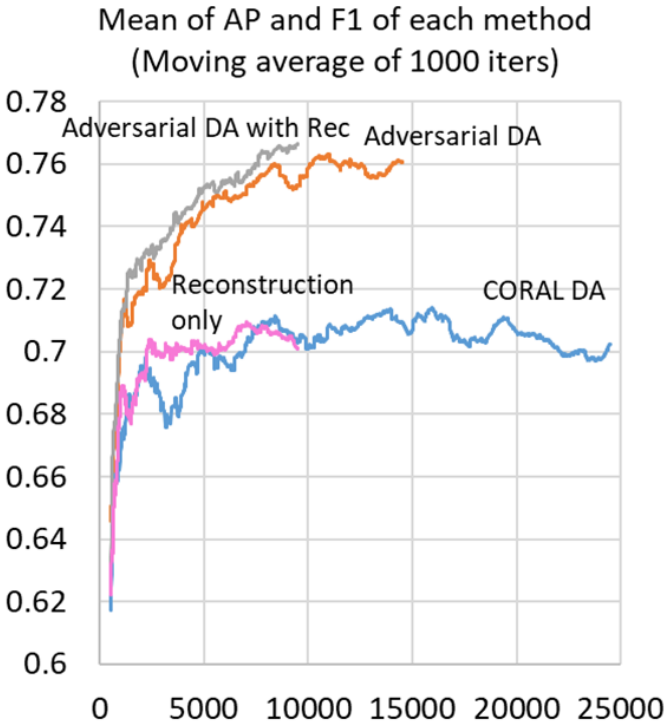
with:



And replace Figure 9e



with:



Also replace Table 2

Table 2.

Method	PR	RR	FAR	AP	F1	Mean of AP and F1
Reference	83.9%	78.5%	15.1%	75.3%	81.1%	**78.2%**
Without DA	82.6%	65.1%	13.7%	61.7%	72.8%	**67.2%**
M2Det w/o DA	82.4%	73.7%	15.7%	69.7%	77.8%	**73.7%**
Reconstruction	81.8%	75.5%	16.8%	72.7%	78.5%	**75.6%**
CORAL	86.3%	77.1%	12.2%	73.3%	81.5%	**77.4%**
Adversarial	85.4%	76.5%	13.0%	74.0%	80.7%	**77.4%**
Adv + Rec	88.0%	77.9%	10.7%	75.2%	82.6%	**78.9%**

with:

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Method	PR	RR	FAR	AP	F1	Mean of AP and F1
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M2Det w/o DA	82.4%	73.7%	15.7%	69.7%	77.8%	**73.7%**
Reconstruction	81.8%	75.5%	16.8%	72.7%	78.5%	**75.6%**
CORAL	74.8%	78.4%	26.3%	74.3%	76.6%	**75.5%**
Adversarial	85.4%	76.5%	13.0%	74.0%	80.7%	**77.4%**
Adv + Rec	88.0%	77.9%	10.7%	75.2%	82.6%	**78.9%**

Consequently, the following revisions of the body text are made:

1. Original (p.14 L509–512):

The best scores of mean of AP and F1 for each were 78.4% at iteration 19,590 in CORAL DA, 78.3% at iteration 12,220 in adversarial DA, 78.8% at iteration 9020 in adversarial DA with reconstruction, and 76.5% at iteration 780 in reconstruction only.

Revised:

The best scores of mean of AP and F1 for each were 76.3% at iteration 660 in CORAL DA, 78.3% at iteration 12,220 in adversarial DA, 78.8% at iteration 9020 in adversarial DA with reconstruction, and 76.5% at iteration 780 in reconstruction only.

2. Original (p.17 L545–553):

While CORAL DA and adversarial DA significantly improved the accuracy, they were slightly lower than the reference score. In our experiments, CORAL DA and adversarial DA achieved almost the same accuracy, while original ADDA reported better performance than deep CORAL in classification tasks. We assume that this was because the feature differences in the source and target domains in our case were not as significant as other potential DA problems, such as a case of transferring an object detector of RGB images to depth images, and the simple mathematical approach of CORAL DA was enough to generate a high level of accuracy. Meanwhile, the fast convergence adversarial DA is an advantage. Adversarial DA took about 7.5 hours for 12,220 iterations, whereas CORAL DA took about 28 hours for 19,590 iterations in our implementation.

Revised:

In our experiments, while CORAL DA and adversarial DA improved the accuracy, adversarial DA achieved much higher accuracy close to the reference score than CORAL DA, as original ADDA reported better performance than deep CORAL in classification tasks. We assume that this was because Adversarial DA was advantageous to dealing with the complicated feature differences between the source and target domains than CORAL DA that is the simple mathematical approach.

3. Original (p.17 L568–569):

Adversarial DA with reconstruction took about nine hours for 9020 iterations, which include a reasonable additional cost (1.5 hours) compared to adversarial DA.

Revised:

Adversarial DA with reconstruction took about 9 hours for 9020 iterations, which include a reasonable additional cost (1.5 hours) compared to adversarial DA that took about 7.5 hours for 12,220 iterations.

4. Original (p.21 L650–651):

While CORAL DA and adversarial DA achieved almost the same accuracy, adversarial DA has room for improvement.

Revised:

While adversarial DA achieved almost the same accuracy as the reference score, adversarial DA has room for improvement.

These changes have no material impact on the conclusions of our paper. The authors would like to apologize for any inconvenience caused to the readers by these changes.

Reference

1. Koga, Y.; Miyazaki, H.; Shibasaki, R. A Method for Vehicle Detection in High-Resolution Satellite Images that Uses a Region-Based Object Detector and Unsupervised Domain Adaptation. *Remote Sens.* **2020**, *12*, 575. [CrossRef]