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Corrigendum

Corrigendum to "WebPIE: A Web-scale Parallel Inference Engine using MapReduce" [Web Semant. Sci. Serv. Agents World Wide Web 10 (2012) 59–75]

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The authors regret some errors, as follows.

On page 61, add, just before the header of Section 3.1: *It is well known that the RDFS closure is infinite, and we will describe how we ignore some of the RDFS rules which produce either trivial results or ignore derivations that are considered bad style. For similar reasons, we do not add the RDFS axiomatic triples to the input data.*

1. On page 64, the third antecedent of rule 14a of Table 3 is *u p w*.
2. On page 64, the head of the rule 14b of Table 3 is *u p w*.
3. On page 67, add, at the end of Section 6.1: *In the latest version of the code, the execution of OWL reasoning requires one more job to finish because of an implementation bug of the incremental reasoning procedure.*
4. On page 68, in Table 8, the header of the the second column should be "Input size (millions). The header of the third column should be "Throughput (Kpts). The value of the input for the Bio2RDF dataset should be 24000 and not 24. Also, notice that the throughput was calculated dividing the input size with the runtime and not the output.
5. On page 69, the value on the y axis of Figure 6(a) should be "Runtime (minutes)".
6. On page 69, Add a footnote after the second sentence of Section 6.5: "Notice that in some case the implementation used for the duplicate strategies "threshold" and "end" can lead to an infinite loop". This can be prevented by simply forcing the deletion after a fixed number of steps.
7. On page 72, add, at the end of the first paragraph of Appendix A.1: *As usual, our pseudocode omits details that are not essential for human understanding of the algorithm, such as variable declarations, datatypes and some subroutines* (http://en.wikipedia.org/wiki/Pseudocode).
8. On page 71, the first line of Section 8.2 should read RDFS/OWL Horst instead of OWL Horst.
9. In Appendix A, Algorithm 3 (page 72) should read:

```
rdfs_reasoning(data) {
  derived = apply_job(data,SUBPROP);
  derived += apply_job(data + derived, DOMAINRANGE);
  derived = clean_duplicates(data, derived);
  derived += apply_job(data + derived, SUBCLASS);
  if (derived_special_cases_no_loop(derived) == true)
   derived += apply_job(data + derived, SPECIAL_CASES);
  if (derived_special_cases_with_loop(derived) == true)
   derived += rdfs_reasoning(data + derived);
  return derived
}
```

10. In Appendix A, Algorithm 6 (page 73) lines 3 and 6 should output `value.subject` instead of `value.predicate`.
11. In Appendix A (page 72), add, to the paragraph on SUBCLASS: *The pseudocode of Algorithm 6 does not mention the computation of rules 12 and 13, because their execution is trivial.*
12. In Appendix A, Algorithm 10 (page 74) should be:

```
map(key,edge):
  emit(edge.from,edge.to);
  emit(edge.to,edge.from);
reduce(key,values):
  toNodes.empty(); // edges to other nodes
  foundReplacement = false
  for(value in values)
    if (value < key)
      if (foundReplacement)
        toNodes.add(key);
      foundReplacement = true;
      key = value;
    else if (value > key) toNodes.add(value);
  for(to in toNodes)
    emit(null,{key,to});
```

The authors apologise for any inconvenience caused.

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