

# **Ontology-based Semi-automatic Workflow Composition**

**Daniel de Oliveira, Eduardo Ogasawara, Jonas Dias, Fernanda Baião and Marta Mattoso**

## **RESPONSE TO REVIEWERS**

### **Journal of Information and Data Management**

First of all, we would like to thank the reviewers for their valuable comments on this piece of work. They helped us to improve the article in various ways. We worked intensively on the paper and did significant changes overall. In summary, we did all text improvements identified by the reviewers and performed a thorough English review in all sections of the article. We also reorganized the structure of the paper's sections, according to the reviewer's suggestions, and included two new sections. To strengthen the contribution results, we included a new experimental section in the paper, reporting more complete experimental results in Section 5. Due to this extension, we added one more author who helped us on this new experiment. Furthermore, we clarified the main contributions of the article which was the main request of the reviewers. More details on this revised version of our paper are discussed as follows.

As requested by reviewers, in the introduction section, we explain the focus of our research and details on the main contribution of paper. In the previous version, the reviewers pointed out that it was not clear to identify that the contribution was the combination of: (i) a workflow ontology, named SciFlow, and (ii) a proposal to represent abstract workflow specifications, named Experiment Lines. We made that clear and included an experiment to evaluate this combination. We also make it clear at the introductory section that both SciFlow and experiment lines (being evaluated alone) are part of previous work and not a contribution of this article.

We have also included a new section detailing the concept of Experiment Lines along with the tool that implements this concept, GExpLine. We have also added a new section with an experimental evaluation of the semantic approach that is proposed. This study evaluates the complexity of workflow modeling and time to model. All minor corrections, such as English grammar problems, were performed in the article. Once again we thank for the thorough evaluation conducted by the reviewers.