Accepted Manuscript

Scientific workflows in data analysis: Bridging expertise across multiple domains

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PII: S0167-739X(17)30019-5

DOI: http://dx.doi.org/10.1016/j.future.2017.01.001

Reference: FUTURE 3283

To appear in: Future Generation Computer Systems

Received date: 1 May 2016 Revised date: 1 October 2016 Accepted date: 7 January 2017



Please cite this article as: R.J. Sethi, Y. Gil, Scientific workflows in data analysis: Bridging expertise across multiple domains, *Future Generation Computer Systems* (2017), http://dx.doi.org/10.1016/j.future.2017.01.001

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*Highlights (for review)

- We demonstrate the ability to re-use workflow fragments in different data domains: text analysis, image analysis, analysis of activity in video, and neural analysis of artistic style.
- We highlight how the re-use of workflows allows scientists to link across disciplines and avail themselves of the benefits of inter-disciplinary research beyond their normal area of expertise
- Creation of various workflow fragments for text analysis, image analysis, analysis of activity in video, and neural analysis of artistic style.
- Case studies that show the re-usability of workflow fragments across multiple data domains, including computer vision and machine learning applications for multimedia analysis.
- Analysis of development time and effort to both extend a nascent, rudimentary analysis
 of a multimedia analysis project using the provided workflow fragments and to port its
 pre-existing code as new workflow fragments as well as creating multiple
 implementations of the neural algorithm for artistic style.

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