Rosemary: Making Complex Collaborative Big Data Analysis Easy – the Neuroscience use-case

Friday, 8 April 2016 09:20 (20 minutes)

<p>"Science Gateways" are web-based enterprise information systems that facilitate access to information infrastructures in the form of customized and community-specific interfaces to data collections, computational tools, and collaborative services. In other words, Science Gateways integrate and customize infrastructure services into one system to provide workflow automation, to increase usability and scalability, and to guarantee security and traceability. "Rosemary" is a software platform that can be customized programmatically to develop Science Gateways for various domains and applications. Rosemary provides functions for data, computing, collaboration, and traceability management. So far, Rosemary has been used to develop three Science Gateways for specific domains and applications: Computational Neuroscience, In Vitro Fertilization, and Genomics gateway. </p>

<p> In this talk the functions provided by Rosemary are presented and explained using the Computational Neuroscience use-case. The talk also includes a short demo to demonstrate how Rosemary users can import and integrate data from various external data sources (e.g., XNAT) into the gateway, perform advanced search on multi-site data, organize and manage their data, process their data on distributed computing platforms (e.g., Grid) using the provided apps (workflows), manage their data processing, and collaborate and communicate with their colleagues. The unique concepts and flexibility of Rosemary that enable quick development of new effective Science Gateways are also highlighted.</p>

<p>Speaker's biography</p>

<p> Shayan Shahand is a postdoctoral researcher, data scientist, and distributed software architect at the AMC e-Science group of the Academic Medical Center of the University of Amsterdam. He obtained his PhD in e-Science from the University of Amsterdam with doctoral thesis entitled "Science Gateways for Biomedical Big Data Analysis". He obtained his master's in computer engineering (distributed systems) and his bachelor's in software engineering. He aims to facilitate collaborative data- and compute-intensive [biomedical] data-driven science. He is enthusiastic about new technologies and he enjoys programming.</p>

Presenters: Dr SHAHAND, Shayan (Academic Medical Center, University of Amsterdam); Prof. OLABAR-RIAGA, Silvia (Academic Medical Center, University of Amsterdam)

Session Classification: Neuroinformatics data exploitation service