Challenges and Opportunities with Virtual Research Environments

Ola Spjuth [1]

- Chemical biology
- Beginner
- 0.5 hour

Virtual Research Environments (VREs) are systems that assist researchers by providing an environment with the necessary tools and data, backed by an appropriate e-infrastructure, enabling them to carry out research e.g. data analysis. There can be different approaches to achieve this, and in my presentation I will explain the motivation and approach taken by the PhenoMeNal consortium when developing a cloud-agnostic on-demand VRE for metabolomics implemented using a microservice-based architecture with software containers executed on a Kubernetes cluster, and where workflow engines such as Galaxy and Luigi can be used to chain components into workflows supporting reproducible analysis. The power of this approach was described in our recent pre-print on data from mass spectrometry and NMR studies. This webinar was presented by Ola Spjuth, Associate Professor (Senior Lecturer) at the Department of Pharmaceutical Biosciences, Uppsala University.

This webinar was recorded on April 4th, 2018. It is best viewed in full screen mode using Google Chrome. The slides from this webinar can be downloaded below.

See the EMBL-EBI training pages for a list of upcoming webinars [2].

Learning objectives:

- List features of virtual research environments
- List advantages and disadvantages of using servers, clusters and virtual research environments
- Describe features of the PhenoMeNal virtual research environment

Contributors

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Links
[1] https://www.ebi.ac.uk/training/online/trainers/Ola%20Spjuth