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SPIDER: open SPatial data Infrastructure eDucation nEtwoRk

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Abstract: In this 2 hour workshop the experiences of the geographic data domain will be shared with the open data research & education community to promote and strengthen active innovative learning and teaching in both worlds. The domain of geographic data can be considered as one of the front running in open data. Over the past two decades, many geographic datasets in Europe became available as open data through the open [spatial] data infrastructure. Several of the high value dataset categories in the EU Directive on Open data and reuse of Public Sector Information have a geographic component. Teachers in this domain are struggling with the concepts of data ecosystems and data infrastructures presented in the academic literature. A very current discussion is on the exact scope of 'open' spatial data infrastructures (SDIs) (see Vancauwenberghe et al. 2018), in which also nongovernment data and nongovernment actors should be considered as key to the performance of the infrastructure and/or ecosystem. Moreover, teaching methods are still limited to traditional teaching in the classroom. As a consequence, there is barely an international exchange of educational material and approaches on open SDI among universities. In this workshop an overview and detailed analysis of the concepts of open data ecosystems and infrastructures are presented and discussed and existing open data education highlighting good practices of learning, teaching and training in open [spatial] data infrastructures or ecosystems explored.

Keywords: Open data education, learning and teaching methods

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1. Topic and Objectives of the Workshop

The topic of this workshop concerns open data learning, teaching and training in higher education. First, it aims at refining concepts of open data ecosystems (see for different views: Pollock 2011; Harrison et al. 2012; Ubaldi 2013; Zuiderwijk 2015; Jetzek 2017) and open data infrastructures (see

for different views: Zuiderwijk 2015; Janssen et al. 2012; Borgman 2000; Coleman and McLaughlin 1997) and the relation between the two (see Coleman and McLaughlin 1997; O'Reilly 2010; Davies 2010; European Commission 2013). Secondly, it will share and discuss good practices of learning, teaching and training methods on open data (ecosystems) currently employed by universities and other higher education organisations.

The insights in the concept of open data ecosystems and in new innovative learning teaching and training methodologies will be inspirational to teachers in open data to develop and implement their own active teaching practices and achieve excellence in open data education.

2. Format of the Workshop

0. Introductory video:

1. Introduction SPIDER: Bastiaan van Loenen (10 minutes)

2. Open data experts view on the concept of open data infrastructure & open data ecosystems (40 minutes): interactive session

4. Outlook into Innovative education on open data infrastructure (10 minutes)

2.1. Presentations (20 minutes)

The following presentations will inspire a constructive dialogue:

- The concept of open [spatial] data ecosystems. Ali Mansourian and Frederika Welle Donker present the different views on open [spatial] data infrastructures.
- Good methods on open data infrastructures. Frederika Welle Donker and Bastiaan van Loenen will present the outcomes of their research on good practices in the domain of open [spatial] data infrastructure education.

2.2. Brainstorming (60 minutes): Refining the Concept of Open Data Ecosystems

The second part of the workshop is dedicated to group discussions. In groups of three to five persons, participants are asked to develop their view on open data ecosystems and infrastructures. Subsequently, we will discuss the group views plenary resulting in a refined holistic open data ecosystems/ infrastructure concept(s).

2.3. Discussion of Innovative Education (40 minutes)

The remainder of the workshop is dedicated to identifying novel innovative and excellent teaching practices on open data (infrastructure/ecosystems) and related topics. In small groups, participants will discuss their teaching practices and experiences. The findings of the group discussions will be discussed plenary. This discussion provides participants with insight in the innovations others have implemented in their open data (infrastructure/ecosystems) education and what is needed to implement such innovations. The results of this discussion will be used to develop and further specify the direction of the SPIDER project.

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Dr. Bastiaan van Loenen is Associate Professor, Program Director of the MSc. Geomatics, and director of the Knowledge Centre Open Data of the Faculty of Architecture and the Built Environment, Delft University of Technology, the Netherlands. His research focuses on the governance of open data reuse.

Ali Mansourian

Dr. Ali Mansourian is Associate Professor at the Department of Physical Geography and Ecosystem Science, Lund University, Sweden, and the director of Geomatics (GIS and RS) Master Programme in the respective university. Dr Ali Mansourian key expertise area are in technical aspects of spatial data Infrastructures as well as implementation and evaluation models. He is coordinator of the EU projects in which spatial data infrastructure curricula and courses are developing for Central Asian Universities as well as Middle-East

Universities. Dr. Mansourian is council member of Association of Geographic Information Laboratories in Europe (AGILE).

Frederika Welle Donker

Dr. Frederika Welle Donker is a researcher attached to the Knowledge Centre Open Data of the Faculty of Architecture and the Built Environment, Delft University of Technology, the Netherlands. Her research focuses on the legal, economic and institutional aspects of open data and on the stimulation of reuse of public sector information.